



Melissa Griffith

Melissa is a former president of Engineers Australia's Queensland Division, member of the National Women in Engineering Committee, and one of Australia's Top 100 most influential engineers in 2005. She is an engineer with the maritime and coastal engineering group of KBR in Brisbane.

Before I start talking a little bit about what I've done this far in my life, I just wanted to ask, how many people know what engineers do? Do you want to just put your hand up, just so I've got an idea when I'm talking? Yeah, a few of you? Okay, I'll just give you a brief overview 'cause that might be able to put what I do in context with engineering in general. There's lots of different sorts of engineering and the strand that I studied was civil engineering and civil engineers are involved with pretty much everything that you guys would be involved with in your day to day life, whether that be flushing your toilet, having a glass of water out of the sink, driving on a bus to school, bridges, the house you live in. Pretty much every part of your life, an engineer has had something to do with and engineers over time have made an amazing contribution to the communities that we live in. A lot of the health and the quality of life that we now have is a direct result if engineers over the past decades that have put in place different sorts of infrastructure, like sewer systems and water supply treatment plants, so that we can have a better quality of life and the part of civil engineering that I'm involved with is maritime and coastal engineering.

You're probably going, what is that? What do engineers have to do with the beach? But we actually have a lot to do with the beach and the ocean and a lot of my work is involved with the design of facilities for vessels, so boats, ships, yachts, so they can come to shore and that they can moor safely while they do the different things that the people on board need to do, whether it's load gas, load coal or the more pleasurable sort of activities, people going out yachting, racing yachts, those sort of things, so I'm involved with all different, those sort of facilities but we also get involved with the beach as well and a few of my jobs involved going down to the beach. One of them in particular was at the Tweed river entrance sand bypassing project and if you're a local Gold Coast person, you've probably seen the big white jetty that extends out from Fingal, which is actually in New South Wales and that jetty pumps sand and it pumps sand underneath the river entrance down at the Tweed to put the sand back on Queensland beaches, because here in Australia on the East Coast, you may not be aware but sand gradually travels north and there's about half a million cubic metres of sand that travels along our coastline every single year and it deposits itself up further north. And what we were trying to do was to assist that sand to going from New South Wales into Queensland because about 40 years ago, they built some rock walls out of the Tweed river entrance and those walls unfortunately stopped some of the transport of that sand into Queensland, so we were down on that project and we got to talk to heaps of people around the place.

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We were talking to the surfers down there, the people that walk on the beach, all of their local surf life-saving clubs down there and there was a real community project and we really had to take into account, what's the value of a beach and what do people want out of their beach and you would be amazed, there's people out there that think some beaches can be too wide and too much sand is a bad thing and that's something I learnt through that project. But it also brought home to me how important the community is in involving them in projects because they're the people that live with the result of what you do and yeah, so that was a really interesting project.

Another part of, I guess the job, that I really enjoy is working with people. I really like people and part of my job's not only sitting at my computer and doing calculations and all those sort of things that we do to design different facilities but I also manage teams of people and they can often be the most unpredictable part of the job. You never quite know what they're going to say, or what they're going to do and I quite enjoy that part of my job. Mathematics is sort of pretty black and white but people are definitely not black and white and not only the people you work with are interesting but often you get interesting clients as well and they will have lots of wisdom that I can learn from, from meeting them, from all the different things they do. And I just thought I'd touch on another project that I've been involved in, in Vietnam recently and unfortunately I haven't scored a trip there yet but I'm trying. Maybe when we start to build it, but that, the project in Vietnam is, it's assisting a fishing village over there. There's a similar problem to the one that I had on the Tweed river entrance, where sand was bypassing around the entrance. These guys actually have too much sand in their entrance and it means a certain part of the year, their fishing fleet, when they try to leave their safe water and go out through the entrance, they actually have been shipwrecked and people have actually died trying just to go out and fish and that's where they make their livelihood. These people, they rely on fishing and they rely on the crops that they grow and so for me that's been a really amazing project, looking at all the social statistics related to what I'm actually doing, like if we can build something there that solves these people's problems, it means they're going to have a guaranteed livelihood for the next generations, not only for the people living there currently but people to come and that's a really, it's a really exciting project to be a part of so, but I've just touched on maritime and coastal engineering today and there's lots of other sorts of engineering and there's no doubt information at the back, so feel free to go and have a chat to me after or ask some questions in the Q&A session.



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