

Submission to the Senate Inquiry into The Shortage of Engineering and Related Employment Skills

By Stephen Noble, Managing Director, Australia Wide Personnel

I run a recruitment firm called Australia Wide Personnel which has specialised largely in recruiting engineers for 32 years. We're at the coalface of the shortage of engineers. Every day, my company's recruitment consultants go into battle to secure the best engineering talent we can find for our clients and come up against these shortages.

How does Australia as a country meet its demand for engineers?

Our schools should be nudging our students towards engineering instead of science

We've been running a survey on our website for a while aimed at engineering job seekers asking "What was the most important factor in your decision to choose engineering as a career?" From over 300 responses, the most influential factor is "a talent for mathematics / science".

From an employer perspective, engineering will continue to be a highly sought- after profession in Australia for the longer term. We need engineers; however our universities are producing scientists. In 2010 our universities produced 61% more domestic graduate scientists than engineers, however if you look on Seek today there are 10 times the number of engineering jobs listed across Australia compared with scientific roles. By and large, the engineering jobs are also better paid with far better career prospects.

More of the students in the 12-15 age bracket who show an aptitude for maths and science need to be exposed to what engineers do – unfortunately it's one of those professions which goes under the radar to a fair degree and the general population do not have a great idea of what an engineer actually does and the variety of career streams available. Most students in this age bracket would have a fairly good understanding of what a doctor, an accountant, a scientist and a computer programmer does. Engineering hasn't hit popular culture through the media, nor is it widely taught at school. Should we be opening up our minds to engineering being a mainstream core of our education system which goes hand in hand with maths and science?

Perhaps the subject could have a very practical focus with activities such as basic CAD drawing, working with hobby electronics kits, regular site visits to a variety of engineering offices. Every school kid in this country gets experience with operating a bunsen burner. Why shouldn't they equally be exposed to some of the engineering basics. And this needs to be comprehensive across our secondary education systems, not just with pockets of schools offering some electives as I know some do.

How do we increase the supply in the short term?

In the short term in order to meet Australia's enormous demand for engineers, employers are using a combination of re-skilling and redeploying engineers from other industries and importing the skills from overseas.

In recent times we've increasingly come across employers who are willing to look at the base skills of engineers from other industries and provide additional training. An example is a large mining

company which is looking for maintenance engineers – they're targeting maintenance engineers from process manufacturing companies such as automotive, pharmaceuticals, food and timber.

At present most of the resumes we receive via our website are from overseas engineers and these are increasingly originating from Europe. Many of the backgrounds look very strong. It is undoubtedly less risky and quicker to find an Australian based engineer for the job but either we import or many of the larger projects coming up will not be completed or alternatively many elements will be offshored.

Additionally, we should be allowing recruitment firms to freely sponsor overseas engineers on 457 visas.

Until a few years ago recruitment firms were allowed sponsor overseas engineers and other professions in the same way that any other organisation in Australia could. We had to apply to become an approved business sponsor, we requested a certain allocation of spots which would then be given to approved applicants who met the requirements of occupations in demand. In 2007 the federal government introduced new rules specifically for recruitment agencies which mean for the vast majority of recruiters, the exercise is not economically viable.

Why allow recruiters the ability to freely sponsor engineers on 457 visas? Because we can do it efficiently.

We are the facilitators and the mechanism for effectively matching talent with the companies which require it. We know the recruitment market for engineers and where the demand lies because we operate in it every day. Candidates (both domestic and international) come to recruiters because we are able to offer a variety of opportunities across a range of employers and industries.

Many of the employers of engineers around Australia are small to medium sized organisations which:

- don't have the resources to attend overseas trade fairs to attract talent for one position at a time like large companies.
- are not experts in sourcing and recruiting engineers because they do it infrequently.
- do not have a constant flow of international candidates coming to them, as recruitment agencies do.

However these small to medium sized organisations still face the same shortage of engineers as larger employers. Engineering recruitment firms on the other hand are always recruiting large numbers of engineers. Doesn't it make sense for recruitment firms to be able to bring the engineering talent into Australia on a larger scale and then on-hire these approved engineers to our clients? Whilst I acknowledge the self-interest in this argument I can't see any other conduit which can source and screen the overseas engineering talent and match it to employer requirements as effectively.

If we succeed in greatly increasing the supply of engineers....

If we're able to show that we can produce, import and retain large quantities of high quality engineers we should then be developing a vision for one of the Australian capital cities to become a global engineering hub like Houston, London or Yokohama, specifically for resources projects. Surely this isn't too far-fetched given our standing as a supplier of natural resources and the quality of our engineering schools. At present it appears that most of the design work on Australia's resources projects is being conducted offshore. And who could blame the large multinationals – at present they can't be confident that they can gain access to the depth and scale of engineering expertise required in Australia.

About Australia Wide Personnel

Established in 1979, Australia Wide Personnel is a specialist engineering, manufacturing and technical recruitment firm. With offices in Melbourne, Sydney and Brisbane, the firm is one of the major recruiters of professional engineering staff in Australia.

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