

Industry 4.0 Advanced Manufacturing Forum, AI Group, Melbourne, Australia.

I attended the Advance Manufacturing Forum on 7 August and it was good to hear how Australian manufacturers are getting to grips with what Industry 4.0 actually means at a practical level and particularly for small to medium size (SME) manufacturers.

In a nutshell I came to the view that SME manufacturers would be more engaged with this digital revolution if we re-labelled it Productivity 4.0. As one speaker said, start with the business problem you are solving and then work out the appropriate technology – and “It’s a journey of value creation and value capture – not a destination”. The good news, which I am keen to publicise, is that the cost of technology that connects machines and gathers data (sensors, the cloud, wifi) is coming down and “Industry 4.0” does not necessarily mean large capital investments. Going paperless is a good start as is building on LEAN 2.0. Callaghan Innovation are trialling a LEAN 2.0 workshop (taking LEAN to the next level), so manufacturers should watch out for this course and also check out the training available on Industry 4.0 <https://bit.ly/2MwvBKK>

In Melbourne – the AI Group did a Digital Industrial Revolution survey amongst their manufacturing members and found that while the big manufacturers were adjusting quite fast to the digital future, small to medium manufacturers were not, with around 70% not seeing any value in data analytics. You can read that report here <https://bit.ly/2TV4Pfs>

Cybersecurity was highlighted in the report as being much more on the radar of most businesses and is a real challenge for smaller businesses. “If they get hacked it can wipe them out.”

One manufacturer spoke from the floor and said their business had digitised LEAN. They were motivated by the need to improve their productivity in a competitive market. They built their own in-house capability or they would never have been able to afford it. They had a good coder and were able to make it happen within their own organisation.

Another family owned manufacturing business (around 200 staff) said their approach was the introduction of a “customer first” approach. They also found combining their older workers with the technical skills, with younger workers with the digital skills had resulted in some very good results. They found that hiring skilled graduates in disciplines like mechatronics had accelerated change in their business much more so than working with Universities.

Trevor Power, head of Industry Growth for the Dept of Industry, Innovation and Science said industry needs to be solving a specific problem to get into Industry 4.0 and get excited about it. He noted some businesses were getting exposed to Industry 4.0 by their supply chains. He noted that businesses don’t necessarily need to be a the ‘bleeding edge’ of technology and being a fast follower is often a good strategy.

Ian Ryan from SAP said things like machine learning and AI are good, but like supply chain optimisation 20 years ago, they are not going to solve all your problems. Some speakers observed that we are not there with standardisation yet either – which helps with interoperability and investment choices. Also, how do small to medium size businesses

invest in digital solutions that enable them to be interoperable with big customers in the supply chain?

There was much agreement on the need for big and small companies to be prepared to share openly when it comes to digital learnings and interoperability. It is in the interests of big companies to collaborate with smaller companies, because it is the small companies that are the most nimble and innovative.

It was also noted that the "circular economy" (recycling of everything) is now a big part of Industry 4.0 in Germany. 'It's coming, it's what customers want. Small to medium size companies should look at this as a business opportunity. What are the new business models when it comes to sustainability?

Lastly – I attended a break-out group on Standards. They noted that Standards can be developed faster than Free Trade Agreements, which I thought was an interesting point.

I did take the opportunity to let Standards Australia know that in New Zealand, we are very disappointed in the new participation fees they are charging for the development of joint Australia New Zealand Standards. These high fees are resulting in a lot of Joint Standards being de-jointed, which is not conducive to good interoperability between New Zealand and Australia when it comes to manufacturing and exporting between our countries. Australian industry seemed to be unaware this is happening. BusinessNZ continues to work with MBIE to get this issue resolved.

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