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The Australian Manufacturing Renaissance beyond 2020

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If, as we are told, Australia is heading towards and dare I say it, planning for, a manufacturing renaissance, then what needs to change from the perspective of manufacturing for this to happen ?

It would be interesting to get some feedback , some thoughts on this topic and maybe in the not too distant future we will get a few people together for a webinar on the subject but to start the conversation, I'll kick it off with a few of my own.

We need to accept that automation makes us globally competitive before we even get into repeatability of quality, multi shift operations at minimal extra cost and the many other benefits. There is a truism that a robot costs the same in Asia and China as it does in Australia. If we move towards an increase in automation, then our manufacturing costs start to align globally.

Now, if the machine that makes the products has cost the same, then the difference in manufacturing the product comes down more to overheads than labour.

Take as an example a high cost country like Germany which has a great mix of automation and people coupled with an attitude of "we make quality products right here" which they foster from a young age in schools.

Education is a whole other topic we should cover separate to this, but again in countries like Germany you can see this in things like students being actively encouraged to attend manufacturing trade shows and how the large and small exhibitors welcome the students and take time to introduce them to the present and excite them about the future, many even putting on additional staff.

As I said, another topic for another day.

Automation does not mean that unemployment will skyrocket either.

I can name several companies in Australia who have doubled and tripled their workforce as a result of automation allowing them to become net exporters. They have taken people and re-skilled many into logistics and other area's that require the human touch and have often invested in engineering and management resources to help them grow by expanding their ongoing offering.

One of the other clues to these companies is their focus on quality as well as costs.

They don't compete with the cheapest. They compete with the best. Automation makes this possible through demonstrated repeatability of the task it is designed to complete.

In these cases, it is so important to get guidance to help select the right automation partner who not only builds the equipment but can support it over the coming decade and beyond.

Next, there is the reluctance of many Australian manufacturers to finance their automation projects.

With clever on or off-balance sheet finance over, let's say 5 years, a major capital purchase can actually be cash positive from its first day of operation, much less the 1- or 2-year payback many companies look to achieve.

We can talk more about the correct period for an ROI at another time and again look to other successful countries for examples.

I will give you a simple case in point – we take a \$250,000 palletising cell that replaces 2 people over 1 shift per day . We allow \$70,000 per person per year if we take into consideration their wages plus all the oncosts. If we use simple math of zero labour once the palletiser is installed, it has a payback of just under 2 years, so fits in under the 2-year payback that most companies are looking for.

If we use the same wage figure for those 2 people, we have a wage bill of a little under \$12,000 per month, but if you finance to a zero residual over 5 years the cost of the automation is less than half that figure from the first month.

Our payback has started on day one. So now we have the automation built by the right people, and we have found the best way for the business to finance the purchase (this is rarely the bank, just for the record)

If we assume the equipment lasts 10 years and ignore lifecycle costs , the direct capital method is cash negative for 2 years and makes a positive bottom line impact of \$1.1m, while the financed method is cash positive from day one and makes a positive impact of almost the same amount after 10 years.

Interestingly many of these people are happy to lease and replace their car every 3 or 4 years, but not the equipment that pays for the car.

The third and final topic I will touch on in this article is the desire of many local manufacturers to be the first to be second.

There is a reluctance to adopt new technology, EVEN if it is the sum of many pieces of proven technology.

In Australia we have always been amongst the fastest in the world to adopt personal technology. When VCR's first hit the shelves Australian's were , by capita the fastest adopters in the world. This continued to CD's, DVD's, mobile phones and continues today with things like smart phone and wearable technology.

But in manufacturing, many are still suspicious of implementing robotic flexible automation or fixed traditional automation.

The excuses are as wide and varied as the types of automation they desperately need.

“What if I lose a contract ?” “What if it breaks down ?” One of my favourites is “if it's so good why doesn't my competitor already have it ?”

There are many other tried and well used excuses such as “automation is only for big companies”

If we flip this attitude on its head, we come up with the word innovation, and being innovative is something I think we all agree Australians beat their chests about being.

Again, if the scope of what needs to be achieved is well laid out, its simpler to match that with the right automation provider who can support the equipment.

With the right financing package, the “what if I lose a contract ?” becomes much less or even not a barrier, and being innovative and adopting what your competitor doesn't already have, making you more efficient, just makes good business sense.

These are just a few points that we need to address as we plan to make more, and export more.