

# **The economic landscape for the Australian industrial sector – Advanced manufacturing as a guide**

**Extended speech delivered by CEDA Chief Executive,  
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*This is an extended version of the speech delivered. The actual delivered speech differs from this version.*

Thank you for the opportunity to be with you today.

There is little doubt that the Australian economy is undergoing a fundamental restructure, and that this is no more apparent than in respect to its industrial sector. However, since the Australian Bureau of Statistics (ABS) definition is so broad, my comments today are specific to Australia's manufacturing industry.

And, as I hope to demonstrate, it is advanced manufacturing that does and will increasingly provide an important element in Australia's economic sustainability.

As noted, I represented the manufacturing centre of Wollongong in the Parliament of Australia during the massive economic and accompanying social restructuring that occurred with the downsizing of the steel and coal industries. I make this point because economic restructuring can have significant consequences for regions, and cities as well as the Australian economy in general.

In recent times we have seen the more traditional forms of manufacturing as represented by mass production and assembly of final products (such as steel and automobiles), progressively being replaced by manufacturers typically engaged in activities which are about variability, complexity and extensive customisation with high value-add.

Watching the emergence of high-tech, high skilled, global supply chain-linked new generation industries, particularly in association with the University of Wollongong, has underscored the fact that the economic landscape for Australia, particularly for manufacturing, has been and will continue to be rapidly transformed.

CEDA has taken a particular interest in this subject, and published a major research report in April 2014 entitled [\*Advanced Manufacturing: Beyond the production line\*](#). A number of comments that I will make will be drawn from that report.

But first, let's set the scene.

### **Australia's economic landscape**

In a nutshell, Australia's economy has been characterised by:

- 23 years of continuous economic growth underpinned by decisions to internationalise the economy in the 80s and 90s.
- Heavy reliance on mining, with commodity prices and Australia's terms of trade at levels never previously experienced.
- China.
- The Australian dollar at levels that has disadvantaged many sectors.
- Growth in the services sector that reflects support for mining and resources and sectors associated with an ageing population.
- Traditional manufacturing in decline.
- Federal Government budget woes compounded by the Global Financial Crisis (GFC), middle class welfare and fractious governance.
- Productivity issues – labour productivity vs (real) wages growth.
- Politics.

That landscape is now changing. Substantial falls in the Australian dollar, commodity prices going south, the mining investment boom having well and truly faded and production now taking its place, worsening Budget circumstances with significant expenditure cuts used as a repair mechanism, unemployment uncertainty, real wage growth slowing, inflation low and trending downwards, interest rates low and likely to go further down as the Reserve Bank of Australia (RBA) reassesses the state of the economy, oil prices crashing/ recovering, gas prices predicted to escalate because of export priorities, falling demand for electricity, business confidence in the toilet, Free Trade Agreements (FTAs) concluded with Japan, China and South Korea, global growth forecasts and Greece, and a government on the nose. Welcome to Australia 2015!

Of course all this is not necessarily bad news in economic terms. And for the manufacturing industry, some is actually very positive.

### **Australian manufacturing**

Rumours of the death of manufacturing in Australia are greatly exaggerated.

However, it is a different form of manufacturing and Australia's mindset about it must change.

The perception of manufacturing in Australia has to a large extent been shaped by media reports about struggling manufacturers, who are more often than not subsidiaries of large multinational companies involved in high-volume manufacturing, and often poorly integrated within Global Value Chains (GVCs).

Compounding this is an ongoing debate about traditional industry assistance, which is typically aimed at luring large multinationals to Australia to engage in traditional manufacturing, an area where Australian manufacturers struggle to compete.

Through innovation, Research and Development (R&D), investment in education and skills and promoting an export culture opportunities for manufacturing – particularly advanced manufacturing– are substantial.

While many associate advanced manufacturing with niche products, such as biopharmaceuticals or defence technology, that is only one part of the picture.

Advanced manufacturing is characterised by low-volume, high-value manufacturing, innovative and technologically-cognisant, with a customer and export focus and nimbleness that allows manufacturers to provide a customised and responsive solution to the market.

They are also generally good managers of GVCs – the complex and cross-border chain of activities from the conceptual stages to the post-sales stages of production – typically positioning themselves at the pre-production stage (e.g. R&D services) and engaging in high value-add activities.

Further, they tend to be small and medium sized enterprises (SMEs) and also have the distinction of rarely being profiled or discussed in the media.

The high-cost advanced economies that have had the most success in advanced manufacturing, such as Germany, Sweden and Switzerland, are those that recognise it is not just about products – advanced manufacturing includes the full suite of activities from concept, R&D and design stage all the way through to post-sales services.

It is about adding value to the production line. As demonstrated by these countries' success, high cost conditions and a strong currency are not necessarily barriers to advanced manufacturing. In fact, many Australian companies have successfully been involved in the GVC and in advanced manufacturing despite the prevailing economic conditions. Nevertheless, the falling dollar and slowing wage growth (declining real wage?) can only be a boon for advanced manufacturing.

So then, what is the current status of government industry policy and in particular, its applicability to sustain advanced manufacturing into the future?

### **Government policy**

Let me state the obvious.

Government can and should adopt policies that actively facilitate the emergence and success of competitive, viable and sustainable manufacturing industries.

On 14 October 2014 the Abbott Government released its *Industry, Innovation and Competitiveness Agenda* – a business-focused element of its Economic Action Strategy – saying the policy was designed to lower business costs and encourage entrepreneurship while boosting skills and infrastructure.

That document specifically states with respect to Industry Policy:

“The Government is refocusing industry policy to drive innovation and entrepreneurship, not dependence on government handouts and protection. Industry policies will be re-targeted to capitalise on Australia’s strengths and accelerate the growth prospects of our high-potential small and medium sized enterprises and most promising sectors. We will consult with industry and researchers on a plan to focus the Government’s \$9.2 billion per year investment in research to get a better commercial return.”

One of its key initiatives proposes the creation of five new not-for-profit Industry Growth Centres to promote Australia’s expertise and competitiveness in: food and agribusiness; mining, equipment and technology services; oil, gas and energy resources; medical technology and pharmaceuticals; and advanced manufacturing sectors.

Another established a Commonwealth Science Council to improve engagement between industry, the public sector and research institutions.

Many of these decisions reflected recommendations contained in the [CEDA Advanced Manufacturing report](#) mentioned earlier.

In my view the *Industry, Innovation and Competitiveness Agenda* is an attempt at a comprehensive policy approach that tackles the very issues that are inhibiting Australia’s international competitiveness and future prosperity. It is comprehensive in outlook and direction; recognises current deficiencies in Science, Technology, Engineering and Mathematics (STEM) and vocational education and training; encourages innovation, R&D; and seeks to reduce regulatory burdens on business.

A further snapshot of the changing face of industry was provided with the release of the *Australian Industry Report* on 10 December 2014. That report reinforced the need for Australia to refocus its economy on new growth in areas of competitive strength — higher value added manufacturing, niche product development and professional services.

In particular, the report highlighted the need for, but debate about, the type of skills enhancement required to lift productivity and international competitiveness and the role of technology in determining Australia’s future workforce composition.

The report also noted that structural change is a continual process influenced by education, labour mobility, economy-wide productivity growth and the business environment. These are issues that CEDA is currently exploring, and in June will release in its major research report on, [the future of work in Australia](#).

Finally, the *Australian Innovation System Report*, released on 23 December 2014, compiled and analysed quantitative and qualitative data on business innovation and innovation – related activities such as skills development, education, R&D and capital investment.

This latest report focused on competitiveness, considering the question: How does innovation support the competitiveness of Australian industry?

It concluded that innovation, and a healthy innovation system, is vital to Australia’s economy. Innovation is a major tool for creating and capturing value for a business and its customers, which translates into increased productivity and profitability. This gives businesses a competitive advantage in the domestic or global market that, when aggregated, drives

sectoral and national competitiveness, and the productive re-allocation of resources throughout the economy.

Broadly, the report found:

- Australia's innovation system is a mid-range performer among Organisation for Economic Co-operation and Development (OECD) countries. The evidence suggests that our innovation performance is lagging, potentially leaving us less resilient to future global shock.
- Australian firms are innovative but, on average, Australia's exporters perform relatively poorly on innovation.
- Australian firms lag in new-to-market innovation.
- Australian business conditions support innovation, competitiveness and investment.
- Investment in innovation is dominated by large firms.
- Australia has several business sectors that are internationally competitive but none in the manufacturing industry.
- Australia is lacking in export diversity.
- Australia's low level of collaboration limits our ability to diversify the economy.
- Greater collaboration on innovation between sectors will help drive world-first innovation and GVC participation.

It must be acknowledged that governments make indirect, complementary investments in innovation through infrastructure, research, healthy skilled workers, industry standards, corporate governance and regulatory environment policy. These indirect investments can create the right framework conditions in which business managers decide to invest in innovation.

### **A sustainable manufacturing industry future?**

If we are to genuinely sustain the transition from traditional to advanced manufacturing successfully the government must be very careful about how they support the sector.

Repealing mining and carbon taxes is not a substitute for industry policy, or indeed to proper adoption of a taxation policy overhaul that provides incentive for the manufacturing industry to prosper in the Australian economy.

It is critically important that governments take a long-term view of what our future industries will be when deciding how to balance the books. Not only do they need to get smarter in industry support but they also need to address 'the handout culture' that has permeated parts of the industry to drive a culture of innovation that will help deliver productive and sustainable industries.

In a sense it is a little of 'on one hand this, on the other hand that'.

Cuts to funding that drive R&D and innovation, such as those to organisations like CSIRO and the knock-on effects of massive changes proposed in higher education, are potentially biting the hand that will feed our economy in the future.

Universities should be given incentives for research that reaches commercialisation to help forge stronger collaborations with industry, in the same way academics are rewarded for their work being published in peer reviewed journals.

We also need to see further industry collaboration, even among competitors, through research cooperatives, a model that has proven successful in agriculture.

Government public procurement contracts serves as a great example. Support should be prioritised for tenders that include Australian made new-to-world technology to drive innovation rather than accepting off-the-shelf products. This could range from new technology for road surfaces to healthcare equipment for our hospitals or submarines.

The Abbott Government's refusal to commit to allowing Australian companies to publicly compete to build the next generation of submarines or other major defence hardware is a case in point.

What should be understood is that frontier research is undertaken in Australia in defence where customised solutions are required for unique and complex problems.

What does a decision such as this say about the Australian Government's commitment to industry, advanced manufacturing, technology, R&D and growing industrial know-how?

Cultivating new technology domestically means better technology and infrastructure for Australians and also means we can then export and market this technology overseas. This also adds to the knowledge base/capacity of Australia that can have wider application, particularly with respect to the proposed innovation hubs.

Just as importantly, it will drive a cultural shift.

This view has now been reflected to some extent in the ongoing debate among senior Australian economists and academics with respect to industry policy.

Popularly referred to as 'picking winners', anathema to the policy championed in the 1980s and 90s, this approach to economic policy, including industry policy, is now being championed as the only way for Australia to become economically competitive and to drive productivity.

## **Conclusion**

I have sought to demonstrate that there are many factors, some still unknown, that impact on the Australian economy.

There is no doubt that Australia's prosperity will become increasingly subject to the pressures of the international marketplace. This will occur in an environment of heightened human and financial capital mobility and fast paced technological advances that can rapidly undermine sources of traditional comparative advantage.

Government industry policy aims to offer support for a specific number of industry sectors, although the questions of how, who and how much remain.

There is, however, little doubt that for a country such as Australia, advanced manufacturing offers opportunities, and is alive and well. Innovation, R&D, taxation incentives, skills enhancement, collaboration, managerial commitment and export focus will be critical to its success.

**Thank you**