

Speech by Ai Group Chief Executive, Innes Willox, to the

Future for Manufacturing and Engineering Summit,

Newcastle

Manufacturing: Making the Future

Tuesday 29th July 2014

CHECK AGAINST DELIVERY

Introduction

Thank you for the invitation to participate in this Future for Manufacturing and Engineering Summit.

It's an interesting, topical and timely program and it's a pleasure to be part of it.

Can I also say that it is great to see HunterNet; the Hunter Valley Research Foundation; the Hunter Business Chamber; and Ai Group working so effectively to bring this event together.

Before I kick off I want also to note how much the Australian Industry Group values our links with the Hunter. We very much appreciate the job Adrian does up here for us and it is a region that is a major and active contributor to Ai Group both in terms of membership and its representation on our governing bodies.

- We have for a long time benefited from John Coyle's very constructive involvement as a Section Councilor on our NSW Branch Council.
- While we are very saddened at John's resignation, we are pleased that we will be welcoming Martin Spencer onto the NSW Council at our next meeting.
- In a further change we are also farewelling Geoff Lilliss who has been a member of our NSW Executive and welcoming Jeff Phillips.
- Jeff and Martin will join Joss De Iuliis on the NSW Branch Council. Joss is also a member of the Ai Group National Executive where his contributions are always insightful and his advice on wine selection always very valuable.

In addressing my topic: *Manufacturing: Making the future*, I want to make a few points:

- It is difficult to overstate the extent of the challenges that Australian manufacturing has faced over the past decade. In many ways they are bigger even than the shock of two to

three decades ago when manufacturing was jolted by the wind-down of tariffs and the recession of the early 1990s.

- While the pressures have not ended, in a very real sense the impacts to date can be seen as having demonstrated the strengths and resilience of domestic manufacturing more than its weaknesses.
- Looking to the future, as always there is a mix of challenges and opportunities. And it is from this mix that the future of manufacturing will be made.
- It is a future that will be made in large part by businesses themselves acting on their own initiatives; in partnership with other businesses - both here and abroad; in collaboration with academic and private-sector R&D providers; often despite the interventions of governments and government agencies; and also, hopefully, with some cooperative facilitation from the public sector as well.
- And, while this future will build on the existing base of our manufacturing and engineering capabilities, it is a future that will be different in a number of key respects from Australia's manufacturing traditions.

I suspect that some of what I will say on these last couple of points will serve as an amateurish prelude to Professor Roy Green's talk on our strengths and how we make the most of them.

Before getting to these points I want to make some quick observations about the longer-term historical context.

Some historical context

Historically there were a number of important factors behind the development of Australian manufacturing

- We were a small market a long way from major manufacturing centres. This offered opportunities to local producers and afforded them a good measure of natural protection.
- This was combined with healthy growth of the domestic market (in line with rising population and income).
- There were strong opportunities downstream of some of our strengths in natural resources.

On top of these more organic factors, we put in place a system of tariffs

- Partly as one of the core elements in what has been termed *The Australian Settlement*. This refers to the intertwined policies that developed around the time of federation including the minimum wage, a centralised approach to setting wages and conditions, tariff protection, subsidies for the rural sector and the White Australia Policy; and
- Partly to consciously stimulate secondary industry (particularly in the wake of WW1 and during and after WW2).

In the 1950s and 1960s the manufacturing sector contributed well over 25% of Australian GDP and jobs.

For much of its history, the Australian manufacturing sector has had a strong emphasis on upstream, often energy-intensive production. This has been connected with our strengths in mineral resources, in the rural sector and in cheap sources of energy.

While the sector has always had a good deal of diversity, relative to most other developed countries, we have had an unusually large concentration in minerals processing, upstream food production, and chemicals production (including for use in both the rural and mining sectors).

Since the 1960s, for a variety of reasons, the share of manufacturing in the economy has fallen quite considerably and is now well into the single digits.

This decline in the relative size of manufacturing is typical of the developed economies as non-manufacturing sectors – particularly service industries and more recently in Australia's case, the mining sector - have grown faster than manufacturing.

For Australia, developments in transport and communications have reduced not only the "tyranny of distance" but also the natural protection that comes with it.

Further, one by one the elements of *The Australian Settlement* lost relevance and/or currency. It was dismantled and replaced by a more liberal, free-trade, market-based approach to policy and a more multi-cultural approach to immigration. While some of these developments have their share of critics, it is pretty hard, certainly at the aggregate level, to overlook the enviable record of 23 years not out without a recession that has coincided with the change in policy approach.

While all of these factors contributed to a declining SHARE of manufacturing in the economy, up until recently, by and large they did not stop it growing in absolute terms.

Manufacturing Production & Share of Total Production Mar 1984 to Mar 2014

ABS National Accounts



This chart looks at manufacturing output and the share of manufacturing in total output over the past three decades.

The red line shows the declining share of manufacturing. The blue line shows the real level of output – which with two exceptions has continued to grow. The exceptions are:

- The period of the late 1980s and early 1990s associated with the removal of tariffs and then the recession of the early 1990s;
- And the more recent period – from the early years of the century - during which, despite a few ups the real value of manufacturing output has broadly stalled.

The challenges of the past decade

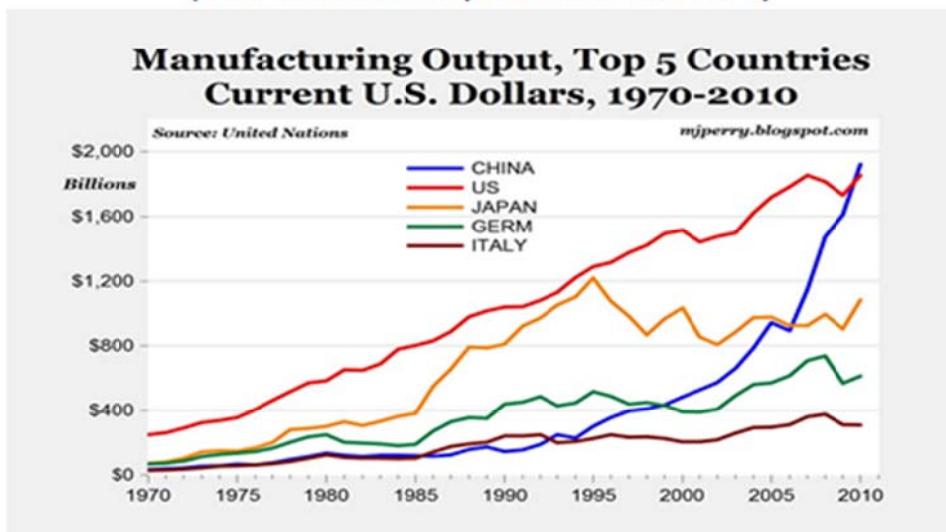
I would like to look quickly in a bit more detail at this second period to help set the scene for the rest of my talk.

Much of the stalling in output growth can be attributed to four hits to the competitiveness of the sector.

China

Chinese industrial output grew at a phenomenal rate over the past decade or so – propelling China to the top of the league table of manufacturing producers.

China's manufacturing output grew by > 14% pa (and overtook Japan's and the US's)



This surge in production, while a huge bonus for the world's consumers, has intensified competition, reduced prices and displaced production elsewhere. Like their counterparts around the world, Australia's manufacturers have had to adjust and adapt and re-examine their business models in the face of this historic global development.

One area where China has made particular strides is in metals production and these days China accounts for over half of global steel and primary aluminium production. Australian producers, like those around the world, have felt the impacts of this surge in global capacity.

Currency

For the past 10 years the Australian dollar has had an average value almost 23.5% above its post-float average to 2004 [i.e. 1983 to 2004] against the US dollar and 18.8% above the Trade Weighted Index (TWI).

A decade of high currency



This average includes the period of the lower \$A during the GFC and in the past five years on average our dollar has been 34.5% above the post float average against the \$US and 25% against the TWI.

At its highest, the \$A was over 55% above the post float average for the \$US and almost 40% against the TWI.

Looking at the averages for the past five years, which are very close to their current levels, this is equivalent to an increase in total costs of between a quarter and a third. For exporting or import-competing businesses, this is very tough indeed at a time when they are also facing the impacts of surging Chinese industrial output.

Energy Costs

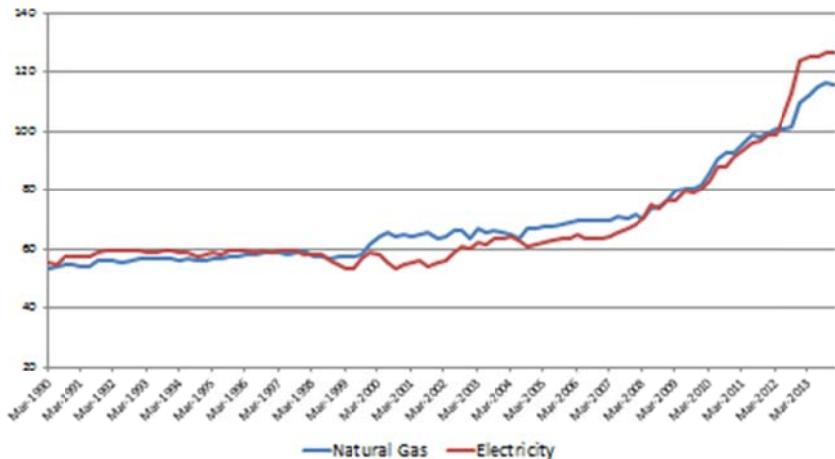
No one here needs me to tell them that energy costs have increased over the past decade.

As I mentioned before, one of the traditional comparative advantages enjoyed by the manufacturing sector has been our cheap energy.

However, in the last ten years energy prices for Australian manufacturers have doubled.

Erosion of Energy Cost Advantage

Producer Price Indices for Natural Gas and Electricity Inputs of Manufacturers



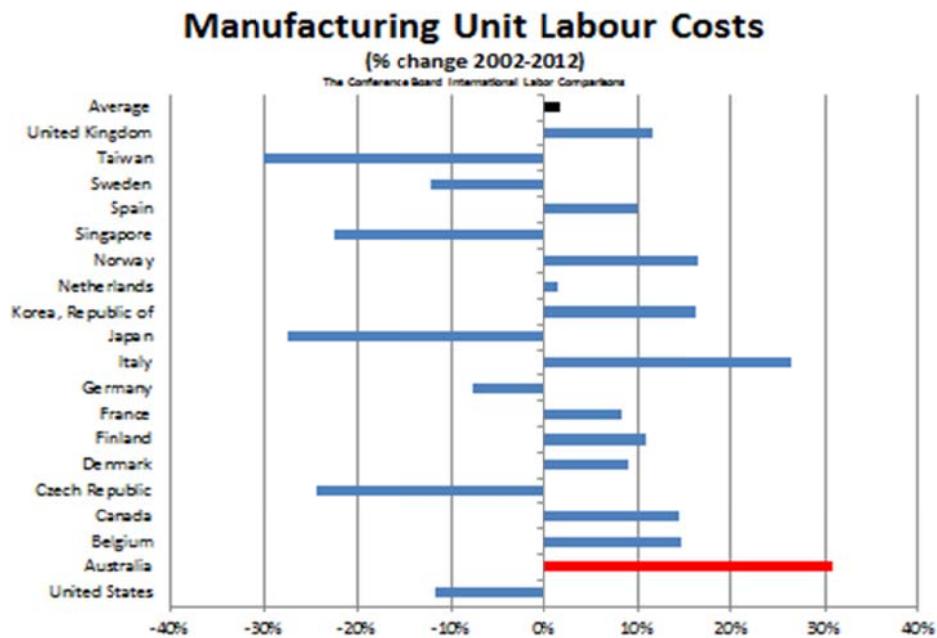
This is clearly a bigger problem for the energy intensive end of the manufacturing spectrum, but with the relative concentration of Australian manufacturing here, its impacts have been magnified.

Remember these cost increases are expressed in *domestic* currency terms so the true impact on competitiveness is a further 25-30% on top of the doubling in the \$A level of energy costs.

Unit labour costs

The same can be said for the pressures that have come from the relatively high growth in our unit labour costs.

Changes in unit labour costs are a combination of changes in wages and other costs of employing labour and labour productivity.



These are measured in domestic currencies and understate the real competitiveness impacts impacts when the currency has appreciated – as is the case with the Australian dollar.

Even putting aside the currency impacts, Australia's unit labour costs in the manufacturing sector grew at a faster rate than those of any other of the 19 developed countries for which comparisons were made by the US Conference Board. The group includes Germany, the US, Korea, Japan, Canada and the UK.

Australia's unit labour costs in the manufacturing sector grew by around 31% over this period whereas the average for the countries in this sample rose by less than 2%.

So these are the big four hits to competitiveness: China, the currency, energy costs and unit labour costs. Taken together they have had presented sizable challenges to the domestic manufacturing sector.

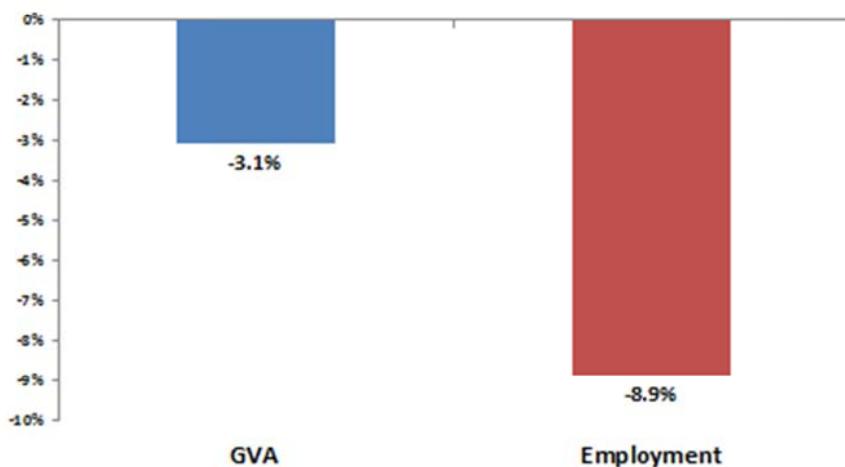
And let's not forget that while these forces were at work, we have also experienced the GFC and its considerable aftermath. An aftermath that has seen a very slow pick-up in international trade and, domestically, has seen a slump in domestic demand including, until very recently, a long slump in residential construction and in the broader housing market – both of which have strong linkages to domestic manufacturing.

So it has been an extraordinarily tough decade. A decade where a lot of businesses have shut down, many more have scaled back production and laid off staff. A decade where profit levels have been under immense pressure with little in the way of retained profits available for investment in capital equipment or in broader changes in business direction. And a decade during which we saw a major retreat from risk on the part of the financial sector together with an adverse re-rating of the riskiness of manufacturing businesses.

The decade in summary: a glass 9 per cent empty or 91 per cent full?

With this stark picture in mind, when I look at this Chart summarising the aggregate performance of the sector over the last ten years, I have something of a mixed reaction.

Summary of 2004-14 for manufacturing



On the one hand, it is clearly not a great outcome to see the quantity of Gross Value Added (GVA) fall by over 3 per cent during the decade. And equally it is clearly not a great outcome to see a reduction in employment of almost 9 per cent over this ten-year period.

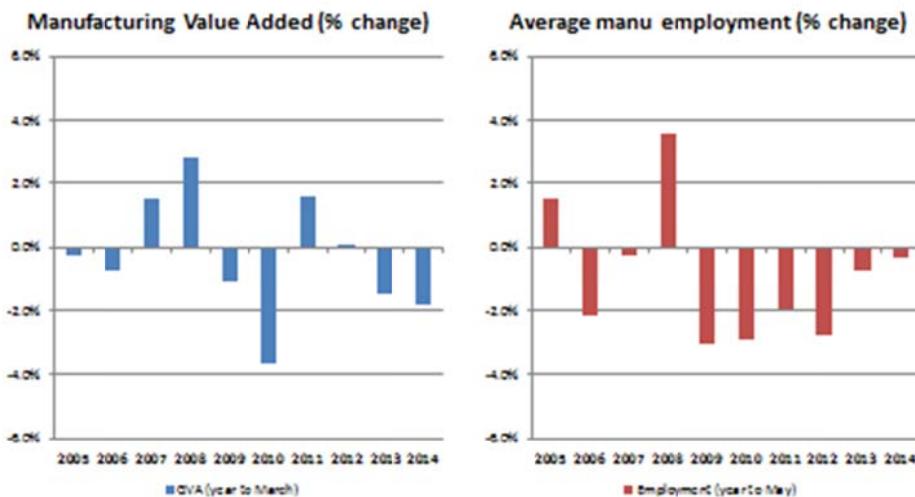
But I can't help thinking that, given the scale of the challenges faced by the sector since 2004, these orders of magnitude point more to the considerable strengths and the resilience of the sector rather than suggesting weaknesses.

On another occasion when reflecting on this loss of 9 per cent of the manufacturing workforce, I have asked whether we should be seeing the glass as 9 per cent empty or as 91 per cent full.

But I don't want to pretend that we do not face very serious challenges. We do and they demand serious responses.

- I am very aware that the past five years has been tougher than the first half of the decade – something shown by this next slide and evident in both output and employment.

Post GFC particularly difficult



- I am very aware of the impacts, particularly the regional impacts, of the pull-back in commodity prices and the winding down of the investment boom in the minerals sector and how this flows through to manufacturing – not the least here in the Hunter.
- And I am very aware that we have more job losses and closures of industrial capacity in the pipeline – with the demise of automotive assembly sector the most prominent.

But, despite all of this, we have to take a great deal of encouragement from the determination with which our manufacturers have toughed out the challenges that have been thrown at them.

And they have not simply put up the defenses and tried to hold the fort. They have reacted by re-examining and re-thinking; looking for ways to re-shape and re-modelling their businesses; and coming together at events such as this to share experiences and consider new opportunities.

Making the future: challenges and opportunities

On this note I would like to turn to the making of the future of manufacturing.

It is a future that will be made out of the challenges and the opportunities we confront.

Strong challenges are set to persist. While there are sure to be more, I will quickly look at those already discussed.

China et al

While costs in China are rising and are set to continue to rise, there is still considerable under-utilised capacity there to support further urbanisation and industrial expansion. More importantly, Chinese competition is rapidly reaching into more and more sophisticated domains

as their industrial experiences accumulate and as the massive investments in research and development and in manufacturing and engineering skills bear fruit.

And looking a little further afield, two more very populous countries – India and Indonesia - are inexorably moving towards a period of accelerating and more widespread industrialisation.

And further afield still, think of Mexico, Bangladesh, Brazil, Nigeria, Columbia, Vietnam and Turkey among others.

How this all pans out is anyone's guess but we can be certain that there will continue to be extraordinarily large additions to industrial capacity and successive waves of cheap labour being brought onto the global market.

Currency

It's much harder to forecast the level of the Australian dollar than broad, global developments but, largely because of the impacts of continuing and prospective industrialisations on the demand for commodities, we can also anticipate healthy demand for the Australian dollar. I don't think anyone is suggesting that the dollar might return to its post-float average level (of around \$US 70 cents for the 1983-2004 period and around \$US 75 cents over the 1983 to 2014 period).

I take some heart from the statements by the Reserve Bank that their assessment on the basis of fundamentals that the dollar is overvalued and should have an 8 in front of it. But I don't hear of anyone saying that it should have a 7 in front of it.

Energy prices

First the good news - energy prices should drop somewhat with the removal of the carbon tax.

But I'm afraid that there ends the good news and we certainly can't expect a return to the significant energy cost advantage of the last century.

I think everyone here is aware of the pressures on domestic gas prices as the LNG export industry gathers pace. It is certainly something that Ai Group has been talking about for quite a while – and only a week or so ago we released a major report on the impacts on prices and on the industrial sector.

There are steps that can be taken to ameliorate the impacts – and these should be taken – but still gas prices are heading higher.

Electricity prices don't face the same degree of pressure but they too are expected to move higher once new investments in generation capacity are needed.

Unit labour costs

As I mentioned there are two sides to this story: labour costs and labour productivity.

I don't think we should either be hoping for, or expecting, a future characterised by falling real wages.

We want Australian living standards to rise not to fall. While there is clearly a case for a good deal of wage restraint in the face of the sorts of conditions we are currently facing, if manufacturing is to build a successful future it must be able to attract talent by offering attractive and well-remunerated jobs.

So this too will be a continuing challenge.

Fortunately there are opportunities as well as challenges.

What are the opportunities?

Strong capabilities and great businesses

Whenever you have strong capabilities and imaginative and outward-looking businesses you have opportunities. And there can be little doubt that Australia has strong manufacturing and engineering capabilities and very well-run and dynamic businesses.

There is any number of examples and plenty of them are from the Hunter and attending this event – either today or on Thursday. I will mention just a few:

- We have Banlaw who have transformed from being a manufacturer of fuel pumping equipment to an information technology and service company providing global fuel monitoring for large mining companies and national transport operators;
- We have Nupress with its niche stainless steel products and services in glass architecture for buildings both in Australia and in North America.
- Hedweld (one of the sponsors) - who have gone from constructing steel industrial buildings in the Upper Hunter to a manufacturer and exporter of mining and earthmoving equipment. It also operates a facility on North America.
- ATSA/UVS with its global successes in underwater and pipeline sensing equipment.
- Steber Boats which manufacturers, exports and services ever-more sophisticated fibreglass and composite boats from Taree.
- And, I haven't mentioned the Varley Group or Ampcontrol.

There is a lot to learn from these businesses with their emphasis on quality; the strong partnerships they build; the attention they give to the development of their businesses; the investments they make in their workforces and in their capital equipment; and the ongoing quest for new opportunities.

Asian middle class

I want also to mention what is probably the most important source of new opportunities for Australian manufacturers.

As is usually the case, the challenges and the opportunities are inextricably linked. Just as the emerging economies pose a competitive threat and are also ultimately behind the strength of the Australian currency, so too are they the source of so many new opportunities.

We have heard a lot of the Asian century and the growth of the Asian middle class. We are on the cusp of a massive surge of incomes – and purchasing power - both globally and particularly in the Asian region.

- One estimate suggests that the number of “middle class” people globally is set to grow from around 2 billion to 5 billion in the next decade and a half.
- This is astounding enough but Asia’s share of this is on track to more than double as the Asian middle class grows from around 600 million to over 3 billion.

There are tremendous possibilities in this and with only a modest share there is more than enough to encourage Australia’s manufacturers.

And the growth in demand from emerging economies is far from the only opportunity. There are others also both in the domestic and global markets.

What have we got to do to take advantage of these opportunities?

While we have some solid reasons for measured optimism about the potential for Australian manufacturing – both from the supply and demand sides – success is far from assured.

For one thing we have already seen quite a loss of capability – you can’t lose 9 per cent of your workforce and not lose capability. And we know that there is considerable pressure building on other parts of the sector.

What we have to do in the face of this is to build and rebuild capability.

Now I know I am getting closer to Roy’s talk and also to his subject matter but I will throw in a few thoughts. They draw from a variety of sources and not the least from Ai Group’s Hunter study tour to SME German manufacturers in May 2013 that Adrian has reported back on with his customary enthusiasm.

- We need to invest in our workforces – both our new entrants and our existing workforces.
- We have to invest in our management skills. Again there are roles for businesses and governments in this. We need more, not less programs like Enterprise Connect and the Entrepreneur’s Infrastructure Programme dedicated to lifting the horizons and performance of our many SME manufacturers.
- We need to keep close to market developments and emerging opportunities.
- We need to keep up to speed with new technologies and new business models.
- We need to make investments in capital equipment and in our processes.
- We need to invest also in our supply chains. Businesses need to make their own operations competitive but they also have to encourage and help the businesses along their supply chains meet their potential.
- In all of this we need to build partnerships - both here and abroad – with other businesses and with public and private sector research providers.

DIGITAL BUSINESS KITS

- One area of management capability development that Ai Group has been working on over the past year or so under a contract with the Department of Communications is in developing material for what is called a Digital Business Kit (DBK).
- The DBK is a collection of information, tips, case studies and advice on how digital technologies can create real benefits for the small to medium enterprises within the manufacturing industry.
- Designed as an introduction to the possibilities that digital technologies offer businesses, the kit contains useful information and tips from companies who have found real success in integrating new digital technology within the operations and management of their businesses.
- Digital technology and the internet are creating disruptive changes that bring major opportunities and challenges in product and production innovation. With the correct approach and responding positively to the inherent challenges and opportunities, Australian manufacturing firms who are not only technologically sophisticated, but are also agile, adaptive and efficient will be most likely to excel.
- A small example included in the kit is FPM – Bendix Brakes, an automotive supplier based in Ballarat.
- They developed an app that uses face recognition technology that enables a customer to take an image of the brake pad, the app recognises the part, automatically searches an online catalogue and identifies the right replacement. The company attributes this and their social media marketing strategy as key in their survival in the automotive aftermarket.

Adrian has some further information on the DBK.

Concluding Comments

In closing I would like to make a few quick observations about some of the key differences between the future and the past for Australian manufacturing.

First, the huge increase in global industrial capacity that has already occurred and that is in prospect means that the opportunities for us to be competitive in large undifferentiated product lines are rapidly diminishing.

In general we cannot hope to compete against countries that have plentiful supplies of cheap labour making readily-replicated products in large batches.

And nor can we expect future growth of our manufacturing sector to rest on our cheap energy. Unless we can find competitive ways to add value to energy-intensive areas of production, we will find the importance of these sorts of activities to continue to fall. There are exceptions and in carbon-fibre there are some promising developments for example. But the advantages here rest more on the new technologies that are being developed rather than purely in inexpensive energy.

Future growth opportunities will be in areas other than in the upstream, energy intensive areas of production that have been such a traditional source of advantage.

More and more, the future sources of growth will be in more knowledge-intensive areas of production, where we taking advantage of our strengths in scientific and industrial research and in industrial design rather than our proximity to agriculture, minerals and sources of energy.

A big part of the challenge will be in linking our manufacturing to our sources of research and design. We need to do this at least as well as, in earlier eras, we linked manufacturing to our strengths in agriculture and in mineral resource development.