



Manufacturing Skills Australia's response to Meeting Future Market Demand – A strategic directions issues paper

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Manufacturing a skilled Australia

This response has been prepared by Manufacturing Skills Australia to the Forest Industry Advisory Council's Meeting Future Market Demand – A Strategic Directions Issues Paper.

Manufacturing Skills Australia (MSA) is the national industry skills council recognised by the Australian Government to ensure that the skill needs of manufacturing enterprises are being met. It is responsible for liaising with industry and enterprises to identify current and future skill needs and supporting the development, implementation and improvement of nationally recognised training and qualifications, providing industry intelligence and advice to inform government policy; and providing skills and training advice to individual enterprises to assist with training and development processes.

Our vision is to be the pre-eminent organisation in Australia fostering and advocating for the workforce skill development needs of a thriving industry. We provide bi-partisan leadership and value the empowered and informed input of industry stakeholders. We strive to provide high quality information and resources around skill development to support the participation of industry in developing an innovative, highly productive and globally competitive manufacturing industry.

MSA is funded by the Australian Government through the Commonwealth Department of Education and Training, and works closely with industry associations, unions, training providers, government agencies and employers to continually evolve and improve skills for manufacturing.

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Preamble

MSA welcomes the opportunity to provide a response to Meeting Future Market Demand – A strategic directions issues paper.

As the Industry Skills Council for the manufacturing industry, MSA supports Australian Government initiatives which support the development of the skills necessary for a high skilled, value add and innovative manufacturing industry. Accredited training through the national training system and access to high quality training providers are key to ensuring manufacturing in Australia is able to meet the future demands of the Australian economy as it positions itself to be an integral part of the global supply chain.

The Australian furniture manufacturing industry faces significant challenges, of which one is access to quality, sustainable timber both domestically and from overseas. Therefore the issues facing the forest and forest products industry in Australia are of concern to the furniture manufacturing industry which see itself as a significant value-adding contributor. MSA's response to the issues paper seeks to highlight those issues facing the forest and forest products industry which have a direct and significant impact on furniture manufacturers in Australia.

Key issues addressed in our response

The furniture manufacturing industry is dependent on the supply of quality forest products by a strong and vibrant forest and forest products industry. In our response to the issues paper, MSA has chosen to only address those issues which have been indicated by our stakeholders to have a direct and significant impact on the future of the furniture manufacturing industry in Australia. MSA has also raised some issues which stakeholders are concerned have not been identified/made explicit in the paper.

Vision and objectives

The need for a clear and future focussed vision for the forest and forest products industry is strongly supported by our stakeholders. Furthermore our stakeholders unanimously agree that this vision needs to consider alignment with downstream industries allied with this industry, in particular the Australian furniture manufacturing industry.

There are nearly 5,000 manufacturers in the Australian furniture manufacturing industry, employing 54, 600 people (May 2014), and they contributed \$2.6 billion in industry value add to the Australian economy in 2012-13.¹ The furniture manufacturing industry is dependent on the Australian forestry industry for the raw product (sawnwood) needed to produce Australian manufactured furniture.

The furniture manufacturing industry would support a vision which provides for closer collaboration between the forest products industry and the furniture manufacturing industry. Such a collaboration would be mutually beneficial for both industries and could be provide a point of competitive advantage for Australia. Therefore the manufacturing industry sees the development of a platform that supports and promotes collaboration between the two industries as a critical objective of the national strategy.

¹ Australian Bureau of Statistics, various

Another objective proposed by stakeholders involves the consideration of alternate types of plantation products, for example the commercial production of bamboo within Australia. Bamboo is proving to be a material of the future with multiple uses, including flooring, furniture, textiles, carbon sequestering, etc.

Stakeholders have indicated that sustainability (of supply, products, forest management, etc.) is an important consideration. Furniture manufacturers are concerned that competing for supply of products domestically against the subsidies received and returns to be made from exporting is creating a situation of competitive disadvantage for them. Australian furniture manufacturers are having to use inferior Australian cuts or import inferior timbers to remain competitive in the global market.

Issue 1: Market trends and pressures

One area in which Australia could take the lead globally is in the production of ethically sourced/sustainably farmed timber. At the moment this is a niche product area. However the growing middle class in Asia is increasingly looking for products which reflect their changing values, such as leading edge designed, ethically sourced products. The Australian furniture manufacturing industry sees this as a potential market in which Australia already has an advantage. However more could be done through increased collaboration between Australian forest products producers and the manufacturing sector to produce ethically sourced, innovatively designed, high end furniture from sustainably grown Australian timber. Provenance is becoming increasingly important in developed and maturing markets.

Another area in which Australia has a competitive advantage is in the production of hardwood timbers. Australian hardwood species are the most commonly used plantation hardwoods globally. However countries such as Brazil have more area under plantation with Australian hardwoods than we do². Some Australian hardwoods are extremely fire resistant and durable (for example Turpentine). Therefore there is potential for this hardwood to be used in buildings in fire-prone areas or structures that are immersed in water (pylons, etc.).

Return on investment in Australian hardwood plantations requires a long term view as the timbers are slow maturing, e.g. it is 30 or more years before a turpentine forest can begin to show a return. Support for investment through government policy which supports tax breaks for growers and the promotion of such forests are part of carbon abatement programs would encourage the industry to invest in this area.

The growing Australian population will demand more housing therefore the Australian construction industry will continue to demand Australian softwoods. This will create tension within the industry as domestic demand competes with increasing demand globally to meet the needs of growing populations in emerging nations. Currently Australia exports the majority of our quality softwoods leading to a situation in which domestic consumers are relying on imports to meet industry needs.

Australian hardwoods are in demand for the furniture industry and there is a huge potential for increased demand both within the domestic market as well as internationally as discerning customers seek furniture with a clear line of provenance. Furthermore the impact of Australia's

² <http://www.woodsolutions.com.au/Wood-Species/Hardwood-Species/>

challenging climate will drive a demand for building products that are able to respond to the challenge, such as a demand for naturally fire retardant timbers (as opposed to treated timbers which may release potentially deadly chemicals when exposed to extreme heat or prolonged exposure to water or damp conditions).

Another area in which there is potential for increasing demand is plantation grown bamboo. Bamboo is classified as a non-timber forest product (NTFP) internationally. As previously discussed, there is an increasing number of uses for bamboo globally, ranging from building materials, flooring, fire retardant ceilings (Madrid airport), furniture to interior veneers for cars (BMW), textiles and clothing.³

For MSA stakeholders, marketing and business management support through industry and government channels will be crucial in enabling Australia to position itself to meet this demand. Australian government support in marketing both the forest and forest products industry and the furniture manufacturing industry as sustainable, viable and innovative industries internationally and nationally will be integral.

Some MSA stakeholders expressed concern that a focus on meeting international demand will have serious detrimental effects for domestic demand. For example focussing on the international demand for wood pulp will compound the production shortage of Australian hardwoods for the domestic value-add industries (construction and furniture manufacturing).

Many of the drivers and disruptors that will potentially affect supply and/or demand have been covered in the issues paper. However stakeholders have also identified climate change as both a potential driver and disruptor. Climate change can be a driver as forests are extremely effective 'carbon sinks'. Increasing the use of timber in place of other building materials that have high energy demands as the world moves to a low carbon future is also a potential driver.

However climate change can also be a major disruptor for the industry in Australia. Increasing frequency of extreme weather events (such as fires, floods and cyclones/east coast lows) can potentially disrupt the growth of forests leading to inferior quality timber, destroy large swathes of forest, disrupt supply chains, destroy infrastructure, resulting in unreliable quality, shortage of product and disruption for downstream industries. The majority of Australia's forests are located in regions prone to severe weather events.

Along with climate change, land management practices can also be both a driver and a disruptor. Sustainable land management practices which support bio-diversity and soil improvement can lead to increase production while poor land management practices leading to soil degradation, and a reliance on monoculture forests has the potential to impact supply.

Access to appropriately skilled workers has also been identified by MSA's stakeholders as a potential disruptor to supply. The current forest and forest products industry workforce is ageing. The industry is not attractive to younger people as it is not seen as 'cutting edge' or 'sexy'. They also question the availability of career paths within the industry. Consequently access to training and education is limited with many educational institutions no longer offering the required training due to issues with viable class numbers and the location of the majority of the industry in regional areas.

³ Bamboo Society of Australia, <http://www.bamboo.org.au/>

One potential 'disruption' to the forest and forest products not mentioned in the issues is paper is the increasing use of bamboo globally as an alternative to timber. Already the production and use of bamboo in emerging markets is significant. This can potentially impact demand for Australian forest products.

Issue 2: Emerging uses and markets

Engineered forest products are increasingly being used globally. An emerging engineered forest product which has great potential is laminated veneer lumber (LVL) especially LVLs made from Australian hardwoods. LVLs are high-strength, engineered wood products made from veneers that are bounded together using heat and pressure. Used primarily for structural applications, they are comparable to solid timber, steel and concrete. One of major advantages of LVLs is that they can be made to any length, restricted only by transportation to site.⁴

Australian hardwoods are some of the most durable and strong in the world. Australia has the potential to manufacture hardwood LVLs with high tensile strength and durability, suitable for building large structures such as warehouses, stadia, etc.

Similar to LVLs are glued laminate timber (glulam). Glulam is another emerging engineered timber product which also has great potential for the Australian forest products industry. Glulam is defined as "...a type of structural timber product comprising a number of layers of dimensioned timber bonded together with durable, moisture-resistant structural adhesives. Glulam can be moulded into complex shapes as well as straight beams, etc. It is lighter than both steel and concrete and has significantly lower embodied energy than these materials."⁵

Another innovative project that showing potential is Hydrowood Tasmania⁶. Hydrowood Tasmania is recovering timber that was "lost" in Lake Pieman in the 1970s. The timber is harvested using world recognised sustainable processes and then can be used in furniture manufacturing, interior cabinetry and panelling.

The industry faces significant barriers. Stakeholders have identified that bureaucracy, distance from emerging markets, lack of industry and government support and inflexibility within the industry as the major barriers facing the industry.

The complexity and inflexibility of bureaucracy is considered by many in the industry to be a major barrier to the development of new products and processes as well as impeding the uptake of emerging products. This is coupled with what appears to the industry, to be "an unfair advantage" being given to other countries, especially low-cost countries, under Free Trade Agreements. The industry is extremely concerned about the entry of illegally logged timber into the Australian market. These products undercut Australian forest products and the lack of provenance impacts on the reputation of the industry.

While Australia is close to emerging markets in Asia, there is concern that our distance from mature markets in Europe and America will be a barrier to the export of new and emerging forest products. High-end innovative Australian furniture manufactured from sustainably grown and harvested Australian forest products with a solid provenance will appeal more strongly to the more mature

⁴ Wood Solutions, Laminated Veneer Lumber, <http://www.woodsolutions.com.au/Wood-Product-Categories/Laminated-Veneer-Lumber-LVL>

⁵ Wikipedia, Glued laminated timber, http://en.wikipedia.org/wiki/Glued_laminated_timber

⁶ Hydrowood Tasmania, <http://hydrowood.com.au/>

markets of Europe and America initially. However as the Asian middle class develops, markets will open up there.

The successful development and uptake of emerging forest products will require an industry that is united and forward focussed and well supported by government policy.

Furniture manufacturers in Australia want to collaborate with the forest products industry to develop and manufacture innovative products using leading edge technologies and design. Provenance will play a major role in marketing strategies for the Australian forest products and furniture manufacturing industries.

For the furniture manufacturing industry, the key to opportunities to better utilise wood resources lies in better design. The manufacturing of leading edge designed furniture using new and emerging forest products from Australian forests, while being more expensive than the mass produced products coming from overseas, will provide opportunities to showcase Australian forest products and build markets in countries with developing middle classes. The development of an “Australian brand” through collaboration between producers, manufacturers and government agencies will be critical in making the most of this opportunity.

Issue 4: Innovation, research and development

For the furniture manufacturing industry, innovation, research and development are key to creating a sustainable industry. More research needs to be done into Australian native species, especially hardwoods and their unique properties and how these can be harnessed to create high-end, value-added, niche products for the export market. As part of that research, how the fire-retardant properties of Australian native hardwoods can be utilised to create building products of the future should be investigated. Research is also required into the potential of NTFP (such as bamboo) for Australia.

Australia has a strong and vibrant design sector, especially in the furniture manufacturing and construction industries. Collaboration between the research sector and designers has the potential to build on our strengths and build on the opportunities available to Australian industry.

Furniture manufacturers identified that the lack of support they receive both from government and industry bodies currently inhibits their involvement (and therefore investment) in research, development and extension. In particular, there needs to be greater support for small business which targets their specific needs as identified by the business operators.

The composition of the furniture manufacturing industry is a major inhibitor to private investment into research and development. 96% of the furniture manufacturing industry is comprised of sole traders and small manufacturers (employing less than 20 people)⁷. Support is needed to increase collaboration between small businesses, industry associations (in both the forest and forest products industry and the furniture manufacturing industry), government and the research sector to identify and target research to their needs. This may be via government-sponsored collaborative hubs and research centres, providing support to industry associations to build their capabilities to identify industry research needs and to work collaboratively with research organisations.

⁷ Australian Bureau of Statistics, 2014, 81650 Counts of Australian Businesses, including Entries and Exits, Jun 2009 to Jun 2013

As mentioned in the issues paper, Australia is a buyer of research from foreign providers. However, sometimes the outcomes from this research is not relevant to the Australian context and can actually inhibit development within the industry. For example, the regulation of the use of CCA-treated timber in the Australian construction industry. The restriction of the use of CCA-treated timbers in Australia has had a big impact on the Australian forest products industry by raising costs and lowering availability of appropriate alternate treated timbers. Recent research internationally has proven that the toxicity concerns related to CCA-treated timber are unfounded⁸. However Australia has been slow to respond to this research.

The industry needs a strong framework to support and encourage investment in Australian research and development. This framework needs to be coordinated via a single independent, national body, funded by government (national and state and territory) which is mandated to work with industry, including small businesses, industry associations and research bodies to support research that is in the best interests of the industries. This body would also work to improve communication within the industries and between the industries as well as with research organisations and governments. MSA stakeholders are supportive of a 'national centre for forest products research' providing that furniture manufacturing is part of the research program.

Issue 5: Consumer and community engagement

MSA stakeholders identified that consumer and community engagement is either "extremely important" or "very important" in our survey with regard to the environmental, economic and social credentials of Australian forest products. However the majority of Australians are unaware of the high credentials of Australian forest products. Increasing consumer awareness is essential to the future prosperity not only of the forest products industry but also of the Australian furniture manufacturing industry.

Forest certification is integral to increasing awareness and to creating a sustainable, forward focussed industry. For example, Forest Stewardship Certification (FSC)⁹ is a globally recognised program and consequently a powerful marketing tool for the industry. However many Australian consumers are not aware of these programs. The benefits of buying certified Australian products needs to be promoted, along with the higher standards of manufacture, innovative design and unique qualities of Australian native timbers.

There also needs to be better regulation of forest and furniture products entering Australia to ensure that they comply with Australian standards. Substandard products not only damage the domestic industry, they also potentially endanger Australian lives. There is considerable concern within the industry with regards to illegally logged products entering Australia and the industry strongly supports increased regulation in this area. However the process needs to be considerably managed to ensure that the price of products remains competitive in the global market.

Issue 7: Infrastructure

Power and transport were the two major infrastructure issues identified by stakeholders in MSA's survey. The cost of power was the number one priority identified with stakeholders saying that power costs are a significant impost on business. The furniture manufacturing industry is also

⁸ Wikipedia 2014, Chromated copper arsenate, http://en.wikipedia.org/wiki/Chromated_copper_arsenate

⁹ Forest Stewardship Council, <https://au.fsc.org/>

concerned by the increasing demand from the bioenergy sector which is an emerging use for forest products. The industry is concerned that demand from this sector will impact on availability and cost of products (decreased availability and increased cost). One solution that could be explored is the use of cogeneration plants at processing plants, using biofuel produced from forest waste.

Access to affordable and reliable transport is cited as the other major infrastructure issue facing the industry. Transport infrastructure in Australia is largely road-based, and costs are impacted by fuel prices, distance to be travelled and road conditions. As Australia's population grows, there will be increasing demand on Australian road infrastructure with a resulting rise in costs of road transport at the same time as there will be an increased demand for forest products. Consideration needs to be made now as to how this conundrum can be best addressed to ensure that future needs, both for efficient and cost effective transport and transport infrastructure can be met. Alternate transport infrastructure, including rail and coastal shipping need to be explored.

Consultation both with the industry and between industries (for example between the forest and forest products industry and the transport and logistics industry and the manufacturing industry) as well as by governments is needed to identify and address infrastructure needs. Australia is unique in that it is a mature economy on a large land mass with a relatively small population. Solutions that work in other countries may not be suitable in the Australian context. Therefore all stakeholders will need to work together to develop solutions that meet Australia's needs.

Issue 8: Industry skills and training

Skills and training remains a major concern for the both the forest and forest products industry and the furniture manufacturing industry. Both industries face similar skills issues:

- an ageing workforce,
- difficulty in attracting younger people,
- increasing loss of low-skilled jobs due to increasing use of technology, and
- need to upskill their existing workforce in roles that increasingly require strong science, technology, engineering and mathematics (STEM) skills.

Compounding the issue for the furniture manufacturing industry is that it is increasingly seen as a 'niche' industry with low training numbers making it unviable to provide training. Access to modern technology to use for training is also an issue facing both industries. The forest and forest products industry also has issues related to the provision of training to a workforce that is located in rural and regional areas. Here distance impedes access to training and imposes costs that make training unviable.

These issues are predicted to worsen as changes to funding for training at state and territory level take effect. As each state and territory fully implements contestable funding models, niche industries are increasingly being faced with the loss of training places due to small class sizes make provision of training unviable.

The furniture manufacturing industry is reporting that it is increasingly needing its workers to have skills in a wide range of areas - management, marketing, design – including computer-aided design (CAD), digital literacy, critical thinking, materials technology, to name a few. Some stakeholders are

also concerned that the changes to funding will result in “traditional” skills such as wood machining being lost as these courses are cut from training providers’ offerings.

For many of our stakeholders, TAFE is the vocational education and training (VET) system, especially for those employers who have apprentices. They are extremely concerned by the changes to the VET industry. Glitches with computer systems are seeing apprentices not being enrolled, able to access results or have a student number. Already they are seeing traditional skills disappearing as courses are cut to focus on those courses that provide greater return on investment. For example, there are no courses available in Australia to train saw doctors. As a consequence, employers are sending their apprentices to New Zealand to gain the skills required. They do not believe that the public VET system is well placed to support their training needs now, let alone into the future.

The furniture manufacturing industry relies heavily on the VET system for the skilling and training of its workforce. There is little interaction with the university system. Stakeholders expressed concern that the increased focus on university education has been detrimental to their industry in that potential recruits are actively encouraged to choose a university pathway over a VET pathway. Stakeholders see little relevance in the courses provided by universities for their industry.

At an enterprise level, stakeholders see the development of management and marketing skills as the number one priority to improve productivity and profitability. Increased profitability is seen as necessary for sustainability and to create the right conditions to recruit, develop and retain both the current and future workforce. Government support is needed through access to funding for training in these areas.

However the training must be designed to meet the specific needs of the enterprise, delivered at the time and place that suits the enterprise for there to be take up of training. Given the proportion of the industry that are sole traders or small employers, support will be require for these enterprises to engage with the training system in a meaningful and productive relationship.

Issues not identified or made explicit

The major issue not addressed/made explicit in the paper was the role of the domestic value-add industries such as furniture manufacturing to the forest and forest products industry. As one survey respondent put it, “The more industries using Australian forest products will create more jobs for the people in this country and will pay dividends back into the government to help subsidise funding”. Downstream industries are crucial to the development of new and improved products for use with innovative designs and the ongoing development of the Australian forest and forest products industry so that it remains globally competitive.

While consumer and community engagement touches on the issue of marketing, the need for a coherent, whole of government supported marketing strategy is not addressed. The recently released Draft National Strategy for International Education¹⁰ provides an example of a whole of government approach to promoting, supporting and marketing an industry. Stakeholders have raised with MSA on many occasions the need for such a strategy which has buy-in from all relevant

¹⁰ Department of Education and Training, 2015, Draft National Strategy for International Education, <https://internationaleducation.gov.au/International-network/Australia/InternationalStrategy/Documents/Draft%20National%20Strategy%20for%20International%20Education.pdf>

industries. One strategy proposed by stakeholders has been the development of a government-sponsored e-commerce platform to support the promotion and marketing of Australian forest products from raw products to value-add products such as innovative furniture.

Conclusion

Furniture manufacturers see as critical for their future sustainability and profitability, a sustainable and profitable forest and forest products industry. Its role in supporting and promoting the forest and forest products industry has not been adequately explored in the issues paper. Many of the issues outlined in the issues paper also confront the furniture manufacturing industry which relies on the forest and forest products industry for the inputs for its products. This response reflects the concerns and considerations of this industry.

The industry wants its voice to be heard. However the fragmented composition of the industry often makes this difficult. MSA supports the industry to have its voice heard and works with the industry to put forward its views.

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