



AusBiotech response to Draft NSW Manufacturing Industry Action Plan

Submission to Manufacturing Industry Action Plan Taskforce
(The Taskforce)

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About AusBiotech

AusBiotech is Australia's biotechnology industry organisation, which represents over 3,000 members, covering the human health, agricultural, medical device and diagnostic, food technology, environmental and industrial sectors in biotechnology. AusBiotech represents its members by providing expertise as industry advocates and committee members on many selected steering committees; as well as providing industry perspectives to policy review panels.

AusMedtech, part of AusBiotech, is the national industry group that represents the medical devices and diagnostics industry sector. The purpose of AusMedtech is to facilitate the commercial development of the medical technology industry in Australia by assisting Australian medical device companies and sponsors with jobs and wealth creation as well as the translation of science and technology to the clinic and market.

The medical technology industry in Australia

The medical technology* industry is growing rapidly around the world, driven by the increasing affluence of developed and developing countries; the consequence of increases in life expectancy; demands for a higher quality of life; and need for clever technology.

There are more than 500 medical device companies in Australia. Of these, there are 40 ASX-listed medical device companies. Total market capitalisation of listed medical devices companies was \$10,327 million in April 2012 with the sector growing by 8.2% (PricewaterhouseCoopers, BioForum, Q3, FY2012)¹.

Australia is the 4th largest market by revenue for medical devices and the third largest for diagnostics in the Asia Pacific, joining Japan, China, South Korea and India in the top five. The majority of medical technology companies in Australia (60 per cent) employ less than 20 people, with just 10 per cent employing more than 100 people. Around 80 per cent of enterprises are concentrated on the east coast (mainly in NSW) and excel in niche markets.

The industry is also expected to advance rapidly into new fields of science and engineering, with nanotechnology and other research developments expected to facilitate new innovations in the biomedical sphere and an increasing convergence of physical and biological technology platforms.

Australia's medical device industry can list among its distinct competitive advantages its reduced time to market compared with drug discovery; investor attraction; its comparatively highly-skilled workforce; and its geographic position within the Asia Pacific region.

Cochlear and ResMed are the 'flagship' medical technology companies in Australia and about 30 % of Australian companies manufacture locally.

* Medical technology includes medical devices, diagnostics, in-vitro diagnostics

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AusBiotech has undertaken extensive consultation with its NSW medical technology members through an open consultation forum and private meetings to address the draft NSW Manufacturing Industry Action Plan. The forum and meetings were held in Sydney on Monday 23 July 2012.

The four key responses that our members believe should be considered a priority for medical technology/advanced manufacturing in NSW by the Taskforce is presented in this submission.

1. Regarding recommendation 4 of the Plan – Address Skills Shortage in NSW Manufacturing Industry
2. Regarding recommendation 5 – A NSW Government Infrastructure Development and Planning System that Supports Business and Encourages Clustering of Manufacturing Firms
3. Regarding recommendation 7 - Enhance Access to Finance for SME Manufacturers
4. Regarding recommendation 9 – Implement a Strategic Approach to Promotion Exports

Response 1: Regarding recommendation 4 – Address Skills Shortage in NSW Manufacturing Industry

AusBiotech supports Recommendation 4 – Addressing the skills shortage faced by the NSW manufacturing industry will strengthen Australia’s entrepreneurial management expertise in the manufacturing of medical technologies.

Employing the right person(s) is crucial in translating ideas to action. Research conducted by the Prime Minister’s Science, Engineering and Innovation Council (2002)² identified a deficiency in management skills for high-growth start-up companies and this was further supported by our members in the medical technology/advanced manufacturing industry upon consultation.

There is no simple solution to this problem but AusBiotech believes that attention is needed to retain and attract people with management expertise to improve the entrepreneurial potential of the medical technology/advanced manufacturing industry. AusBiotech believes this skills gap needs to be addressed to ensure the global competitiveness.

In the short-term, the NSW Government could consider:

1. Leveraging Australian Government initiatives like Commercialisation Australia’s *Experience Executive* grant to employ senior and experienced Executives and/or the *Skills and Knowledge* grant to access expert advice and services;
2. Establishing a Mentoring Program which includes an industry matching program and support for first time (clinician) inventors to assist with up-skilling management;
3. Encouraging and incentivising the movement of management between start-ups and the ‘flagship’ medical technology companies (such as Cochlear and ResMed) to share know-how and expertise.

AusBiotech believes that the NSW Government should review the pay roll tax policy for medical technology/advanced manufacturing companies in NSW under Recommendation 4.2, as the relief it provides is not substantial enough to sustain business.

For example, iNova Pharmaceuticals develops and markets a range of leading consumer healthcare and prescription medicines in Australia, and exports to many international markets, in particular to the Asia-Pacific region, New Zealand and South Africa³. In June 2007, the company (which is one of few pharmaceutical companies to be headquartered in Australia) unveiled its upgraded manufacturing facility and laboratories in Sydney, positioning the company as leader in manufacturing and export³. After 40 years in operation and three years later, the manufacturing facility has closed and was moved offshore, with the loss of 135 jobs. The company was offered short-term payroll tax relief by the NSW Government prior to closure but “this was just a drop in the bucket” says Mr Andrew Howden, Chief Executive Officer.

AusBiotech recommends the NSW Government consider developing a framework or environment that supports and encourages Australian medical technology/advanced manufacturers to remain in NSW and Australia.

AusBiotech supports Recommendation 4.3 to increase the pool of available skills in science, maths and engineering for managers of manufacturing companies.

To address the issues of up-skilling the manufacturing work force and management as well as valuing design-led innovation (as per Recommendation 8), NSW could look to adopt the specialist training programs established in the US, Singapore, China, India and Ireland.

These programs encourage the sustainable development and profitable growth of indigenous medical device companies by harnessing and tapping into global value chains. Two examples include:

1. BioInnovate Ireland – 10 month Fellowship program whereby two elite multi-disciplinary teams are selected and formed to identify, invent and implement a project to support innovation, entrepreneurship and the sustainability and growth of the medical device sector. For more information visit: <http://www.bioinnovate.ie/>
2. Stanford Biodesign – 1 - 2 year fellowship programs to train the next generation leaders in medical device technologies. The program provides opportunities to identify and develop new medical technologies. It offer fellowships in Singapore, India, China and therefore provides global reach; and fellowships within Food and Drug Administration (FDA) to assist with building knowledge relating to regulation and reimbursement.

For more information visit: <http://biodesign.stanford.edu/bdn/index.jsp>

AusBiotech believes that up-skilling ‘traditional’ manufacturing workers such as car and resources will maintain employment levels and creates new job opportunities. For example, workers in car component businesses and/or mining sector can be re-trained to manufacture medical device components.

Response 2: Regarding recommendation 5 – A NSW Government Infrastructure Development and Planning System that Supports Business and Encourages Clustering of Manufacturing Firms

AusBiotech supports Recommendation 5.6 to promote/support establishment and development of industry clusters including collaboration across supply chains to achieve greater success in project bids, including providing active support for the specific initiatives raised by industry associations to promote and support industry clustering.

NSW has developed a cluster of excellence in the field of medical technology/advanced manufacturing, and is home to a number of globally recognised companies including Cochlear, ResMed and CathRx to name but a few. Anecdotally, their success is a by-product not just of the entrepreneurship, ingenuity and persistence of the individuals involved directly with those organisations, but of a critical mass of expertise and interest in the State, sufficient to form the 'engine room' of a globally sustainable, growing, competitive industry.

AusBiotech recommends that support be given to leverage this strength and develop the cluster into one of the top 10 medical technology clusters in the world. With that, goes the international investment, job creation and export earnings of a large, globally-oriented and rapidly-expanding industry segment.

For NSW to be home to one of the top 10 medical technology clusters in the world (if not in the top 5) requires that government and industry forge and sustain a partnership aimed at advancing the determinants of global success (e.g. infrastructure, labour, investment and relevant natural resources), leveraging the political, financial and marketing resources of government and the industry knowledge, co-ordination and development skills of the industry associations like AusBiotech.

The partnership would work by:

1. Improving the leverage to industry provided through the education system by subsidising placements of graduate students in industry; promoting greater take-up of biomedical and engineering courses at tertiary level; visiting academics and specific value research projects;
2. Facilitating collaboration across the supply chain (including manufacturing firms, universities, medical research institutes, and hospitals) to strengthen and build clusters of excellence;
3. Improving pathways and removing barriers, to assist with early-stage commercialisation and the creation of value e.g. introducing a TGA audit requirement for all manufacturers and sponsors to level the playing field and allow local manufacturers to compete with the multinationals in getting products to market ;
4. Identifying and resolving key infrastructure gaps where doing so was seen as capable of advancing the dynamism of the NSW medical technology cluster;
5. Supporting occasions which bring buyers of medical technologies together, to interface with the industry in NSW, accelerating industry understanding of customers and customer relationship with the industry (e.g. an industry conference/workshop, creating a NSW medical technology cohort united by involvement in the cluster's development and a cluster-development program). This is also relevant and important to the implementation of Recommendation 8;

6. Connecting leading researchers and developers of advanced machine technologies in defence, media and entertainment, IT, telecommunications and consumer electronics with the industry in NSW and the opportunities afforded by working in NSW.

Response 3: Regarding recommendation 7 - Enhance Access to Finance for SME Manufacturers

According to AusIndustry⁴, *'when innovative early-stage companies have access to adequate capital and to people skilled and experienced in the commercialisation process, the chances of success are greatly enhanced.'* Many companies fail not because of the science and technology but because of poor access to capital leaving them at risk of falling into the 'valley of death'.

AusBiotech supports the NSW Government response to the Health and Medical Research Strategic Review to establish the \$5 million seed fund for the development and commercialisation of innovative medical devices. We are encouraged that the fund will help to avoid the 'valley of death' by assisting early-stage medical technology companies and promote further investment into the development and manufacture of medical technologies.

Responding to the demand for early-stage venture capital support, AusBiotech hosts and manages a series of investment summits in Australia and overseas to showcase Australian innovation and attract foreign investment.

The Medtech Investment Summit, now in its 3rd year, is held annually at the AusMedtech national conference. The Summit has a proven methodology to present Australian medical technology companies to national and International investors.

We are delighted that the \$5 million medical devices seed fund will assist early-stage medical technology companies and encourage further investment in new medical devices. This goal will be further supported by the Medtech Investment Summit.

AusBiotech would welcome the opportunity to discuss options to support and assist the NSW Government with the implementation of the medical device seeding program.

AusBiotech supports Recommendation 7.1 to support the establishment of a finance insurance scheme to encourage lending to more manufacturers and leverages the seed fund scheme. Further clarification would be welcomed from the NSW Government regarding the eligibility of SMEs undertaking solely research and development or technology transfer.

AusBiotech would welcome the reintroduction of the NSW Government's successful TechVoucher program. This would also help avoid the 'valley of death' mentioned above; assist with closing the managerial skills gap highlighted in Recommendation 4 and encourage collaboration across the supply chain as pointed out in Recommendation 5.

Additionally, TechVouchers would leverage Australian Government initiatives such as Commercialisation Australia grants, Australian Research Council Linkage grants as well as Enterprise Connect Researcher in Business program support and bridge the gaps between these Federal programs.

Response 4: Regarding recommendation 9 – Implement a Strategic Approach to Promotion Exports

AusBiotech is dedicated to the development, growth and prosperity of the Australian medical technology industry by providing outreach and access to markets around the world.

AusBiotech has identified significant areas of global market demand that are currently not readily available to Australian medical technology/advanced manufacturers. In each of these cases the supply chains serving these markets present significant barriers to entry to SME companies (e.g. regulatory compliance, access to procurement decision makers, after sales support) whether those companies are pursuing sales to these markets directly or via third party distribution channels.

AusBiotech believes that these barriers can be overcome by a collaborative industry-consortium approach to training, preparation, representation and promotion. Therefore, AusBiotech supports Recommendation 9 to implement a strategic approach to promoting exports.

AusBiotech supports Recommendation 9.3 for the NSW Government, in cooperation with industry associations, to communicate export opportunities for NSW medical technology manufactures and facilitate access to those export opportunities through targeted trade missions.

AusBiotech has established a sound partnership with the NSW Government and has worked closely with NSW Trade and Investment on targeted annual trade missions to MEDICA, the largest health care industry trade show in the world (Dusseldorf, Germany) and BIO, the world's largest biotechnology conference, in the United States of America.

AusBiotech welcomes the NSW Government's focus on China, India and emerging Asian markets. In 2008, with funding support from the Australian Government, Department of Innovation, Industry, Science and Research, AusBiotech led an Australian delegation to Beijing, Tianjin and Shanghai. AusBiotech provided a full program of site visits; business seminars, meetings and networking events. The delegates met in excess of 100 members of the Chinese biotechnology community. A number of participants developed partnerships and business opportunities as a result of this mission. AusBiotech signed a MOU with the Tianjin Municipal Science and Technology Commission, and more recently with Hong Kong.

AusBiotech welcomes the opportunity to discuss options to further support and assist the NSW Government with the implementation of trade missions to China, India and other Asian emerging markets, such as Indonesia.

AusBiotech recommends that the NSW Government look to the Victorian Government for examples of programs that assist companies become export-ready and globally competitive e.g. Technology Trade and International Partnering Program (TRIP) and the Small Technologies Industry Uptake Program (STIUP).

AusBiotech supports Recommendation 9.4 for the NSW Government, in cooperation with industry association and regional development groups, to support the establishment and operation of geographic and supply chain clusters focused on cooperating to access export opportunities.

On 5 February 2009, the Minister for Trade, the Hon Simon Crean MP announced the Austrade-managed Global Opportunities (GO) program. The GO program provided export and investment facilitation services as well as funding support of up to \$1.8 million for three years to eight industry clusters of Australian companies to help expand their international business activities. AusBiotech led the Australian Medical Device Manufacturers cluster to pursue export opportunities in the US healthcare market.

AusBiotech would welcome the opportunity to discuss the mechanics of the GO program with the NSW Government to establish an improved framework for developing the geographic and supply chain clusters focused on export opportunities into China and India.

General Comments

Regarding recommendation 1 – Establish NSW Agility Program and Manufacturing Innovation Awards

AusBiotech endorses this recommendation on the proviso that the Award assists with cluster development; provides an opportunity for investment to the recipient manufacturer and industry; and provides the recipient manufacturer with a ‘badge of honour’ e.g. employer of choice. It seems this recommendation fails to support early-stage and innovation-rich medical technology companies and the \$100,000 Award would not be substantial enough to incentivise medical technology companies to apply. Awards can be also lost as ‘white noise’ and require prestige and status to cut through the noise.

Regarding recommendation 2 – Position NSW as the pro-business “Innovation State”

AusBiotech supports this recommendation on the proviso that NSW is positioned relative to the world rather than compared to Victoria, Queensland and South Australia. AusBiotech recommends that the NSW Government leverage the early success of large, flagship companies like Cochlear and ResMed to build on the State’s current strength and capabilities in medical technology/advanced manufacturing to develop one of the top 10 medical technology clusters in the world. NSW needs to be visible on the international radar and we look forward to the implementation of Actions 2.1 – 2.5.

Regarding recommendation 3 – Use Procurement to Develop the NSW Manufacturing Industry

Small to medium manufacturers can be disadvantaged when competing with multinational, large manufacturers on tenders. AusBiotech supports a full and fair-access procurement practice to ensure SMEs have access to supply opportunities. NSW could look to adopt or adapt the Smart SMEs Market Validation Program established in Victoria to assist SMEs to develop innovative products, processes and services that meet the future needs of the community and government agencies.

Regarding recommendation 6 – Reduce the Cost Burden of Uncompetitive Taxes and Inefficient Regulation

AusBiotech endorses this Recommendation and believes the NSW Government should strive for uniform reform nationally. Much of the regulation is national and would require a national approach with government and industry.

Regarding recommendation 8 – Develop a Design Strategy for NSW Business

AusBiotech endorses this Recommendation and believes the NSW Government could look to the medical technology industry for a design strategy framework that could be translated to other manufacturing sectors.

Concluding Remarks

AusBiotech believes there is a serious lack of understanding, at a policy level, about the contribution that medical device companies are and can further make to manufacturing in Australia, or what their needs or barriers are – and in what ways they differ from the manufacturers of commoditised items, such as cars.

Medical device companies in Australia, with the exception of a few, are typically young and small companies that are competing globally with large multinational companies for market share. They are part of the so-called ‘sunrise industries’ and ‘tick all the boxes’ on advanced manufacturing, providing high value-added products, with high-skilled labour/jobs and global production chains, for niche markets.

AusBiotech sees an opportunity for manufacturers, like medical technology industry heavyweights Cochlear and ResMed, to become the rule not the exception. With an estimated 30% of Australian medical technology companies now manufacturing locally, and the medical technology/advanced manufacturing industry growing rapidly, the stage is set for policy support to open up a future manufacturing industry that will provide highly-skilled jobs and excellent returns to the economy.

In summary, we would like to see a more dynamic, vibrant medical technology/advanced manufacturing industry in NSW - with a focus on supporting international value chains, inward investment, and State leveraging Federal policy, a reduction in non-value-add red tape and regulation as well as greater engagement with industry.

References

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- 2: Prime Minister's Science Engineering and Innovation Council, (2002) 'Management Skills for High Growth Start-Up Companies - *Unleashing Australia's Entrepreneurial Potential*'.
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- 4: AusIndustry, 'Venture Capital in Australia', viewed on 26 July 2012 at <http://www.ausindustry.gov.au/programs/venture-capital/iif/Documents/IIF-VentureCapitalBrochure.pdf>