

# SUBMISSION 5

20 July 2006

Ms Sharon Bryant  
Inquiry Secretary  
Standing Committee on Economics, Finance and Public Administration  
Department of the House of Representatives  
Parliament House  
CANBERRA ACT 2600

Dear Ms Bryant

RMIT University welcomes the opportunity to respond to the inquiry into Australia's manufacturing industry.

Please find attached RMIT's written response to the terms of reference for the inquiry. Our response is focussed on the need for Australia to develop higher value products and services and proposes policy responses in the areas of research and development and skills training.

We would be pleased to further contribute to discussions on the future of the manufacturing sector.

Yours sincerely

**Professor Margaret Gardner**  
**Vice-Chancellor and President**

# **RMIT University submission to the Inquiry into the state of Australia's manufacturing industry now and beyond the resources boom**

## **1. Introduction**

RMIT University welcomes the opportunity to respond to the inquiry into Australia's manufacturing industry now and beyond the resources boom.

RMIT is an important contributor to education, training and research for the manufacturing industry. RMIT has a strong presence in manufacturing, in fields ranging from automotive to textiles to furniture manufacturing. RMIT supports this relationship with expertise in design, including engineering design, industrial design, new and creative media, applied communication and product design. RMIT has strong connections with industry through a number of manufacturing Cooperative Research Centres (CRCs) and undertakes contract research with product and service design companies.

RMIT's response to the Inquiry is focussed on the following terms of reference:

- The state of the country's manufacturing sector (and the goods and associated services) including opportunities and challenges from the expansion in global trade (in particular China); and
- Policies for realising these opportunities

It does not refer to the term of reference relating to Australia's dominance in commodities exports and the impacts of this on the economy following the resources boom.

## **2. Summary of Recommendations**

RMIT proposes that the Australian Government consider the following recommendations to improve the manufacturing sector:

### *Recommendation 1:*

That the Australian Government support research and development in small to medium enterprises that will lead to the creation of higher value products by:

- Supporting successful models of collaboration between small to medium manufacturing enterprises and public research institutions
- Providing financial incentives to encourage small to medium enterprises to participate in such schemes.

### *Recommendation 2:*

That the Australian Government support initiatives to promote the manufacturing sector as an attractive career pathway by:

- Promoting initiatives that bring together education providers and industry to create innovative skill development pathways
- Funding new types of qualifications that support high level skill development and career pathways in the manufacturing industry (eg. Associate Degrees).

### *Recommendation 3:*

That the Australian Government assists the manufacturing industry to secure a place in international supply chains by:

- Supporting higher education providers to up-skill the manufacturing workforce in logistics and supply-chain management.

## **4. RMIT Response**

### ***4.1 The need to develop higher value products and services***

The manufacturing industry needs to develop new high-value added products and services if it is to survive in the global economy and compete against low cost economies such as China and India. The industry must not only continue to improve their processes to lower their costs and improve quality but also use the nation's creative capital to produce higher value products that can compete on factors other than cost.

New product development is critical to business success. A survey by Price Waterhouse Coopers revealed that innovative businesses receive 75% of their revenue from products not in existence five years ago (Cox Review of Creativity in Business: Building on the UK's Strengths, 2005).

By contrast, the 2003 Innovation in Australian Business survey shows that of the 35% of Australian businesses undertaking innovation, only 17% introduced new or significantly improved goods or services (Australian Bureau of Statistics). Of these, only 9% of businesses produced goods or services 'new to the world' – this represents only 1.5% of all businesses surveyed. The survey also found that the 17% of businesses creating new goods and services only spend 8.5% of the money they invested in innovation on design work.

A number of barriers to industry innovating by design have been identified, the key ones being a general lack of awareness by industry of the relationship between innovation and design, and an inability of the design sector and manufacturing firms to effectively work together to identify opportunities (Cox Review, 2005 and Developing Victoria's Design Capability, 2003).

### ***4.2 Proposed strategies for assisting industry to develop higher value products and services***

#### ***4.2.1 Research and Development***

The Australian Government has a strong record of facilitating research and development (R&D) between the manufacturing industry and public research institutions through Co-operative Research Centres (CRCs). However, although the R&D projects funded by the CRCs have produced many benefits for industry, the companies involved tend to be large organisations which already have in-house research and development activities.

There is considerable scope, therefore, for the Australian Government to support R&D in small to medium enterprises (SMEs) by funding collaboration between these organisations and public research institutions.

SMEs play an important role in developing new products and services for the Australian economy. The 2003 Innovation in Australian Business survey showed that although level of innovation of new goods and services increases by business size, the proportion of businesses contributing new goods and services to the world is fairly consistent for small, medium and large businesses. This indicates

that there is an equal amount of creativity in all businesses but SMEs lack the opportunity to innovate and exploit this creativity.

There a number of models that could be considered for support by the Australian Government.

Until recently the Victorian Government funded an Advanced Centre for Manufacturing in Melbourne. This provided SMEs access to the expertise of the academic staff at RMIT University and the University of Melbourne to engage in research and development projects for the benefit of the companies. The Centre also conducted training courses which focused on advanced manufacturing technology and engineering management for industry personnel. The Australian Government could consider funding similar models that enable SMEs to keep abreast of the rapid pace of new manufacturing technology.

RMIT University is in the process of developing an innovative new model for facilitating R&D in the manufacturing industry by focussing on design capability. The RMIT Design Hub will be a resource to support industry to innovate through design, particularly SMEs. It will be a significant resource in assisting industry to overcome the barriers to innovating by design, providing access to facilities, resources and expertise that would otherwise be unavailable to industry. The Design Hub will produce high value products and services that can be turned into commercially viable outcomes, allowing industry to compete on the functional, environmental, social and cultural benefits not just cost. As such, this model of industry support should be of interest to the Australian Government in considering how best to promote manufacturing capability of SMEs.

*Recommendation 1:*

That the Australian Government facilitate research and development in small to medium enterprises that will lead to the creation of higher value products by:

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**4.2.2 Skills Training**

The manufacturing industry is currently experiencing a significant skills shortage across all occupational levels, from the skilled trades through to manufacturing engineering professionals. Of the companies surveyed by the Australian Industry Group for the report 'Manufacturing Futures – Achieving Global Fitness' (2006), around 60% of the firms have identified skills acquisition as a strategy to remain competitive.

There are a number of factors contributing to the shortage of skills in manufacturing, including the unwillingness of young people to enter what they perceive as an industry in decline, the reluctance by some manufacturing firms to engage new apprentices and trainees, the loss of skilled workers due to the ageing population and the lack of career pathways leading to significant skill gaps at the technician level.

To ensure the future of the Australian manufacturing, the industry must attract and retain talented employees capable of both designing and producing high-value products and services that can

compete in global markets. This requires training people in advanced skills and technologies (including design) and creating attractive career pathways.

The Australian Industry Group recently identified that for Australian industry to remain competitive there is a need for higher level skills, a broader range of skills, and for skills to be updated more often (World Class Skills for World Class Industries, 2006). The report stated that delivery needs to be flexible, time and cost-efficient, and highlighted the growing importance of higher education to the training sector.

The Victorian Government identified similar issues in its VET Inquiry and has responded by increasing funding for higher level vocational qualifications and upgrading skills for existing workers (Maintaining the Advantage: Skilled Victorians, 2006). The Inquiry made special note of the importance of dual sector institutions such as RMIT in delivering the skills needed for industry through a mix of higher and vocational education.

The Australian Government has an important role to play in supporting initiatives that promote higher level skills training and flexible and attractive career pathways in the manufacturing industry. Work has already commenced through CoAG to make the national training system more flexible, particularly apprenticeships. There is also scope to promote initiatives that enable seamless career progression in the manufacturing sector, including funding new 'bridging' qualifications that bring together vocational and academic skills.

RMIT is taking the lead in working with industry to develop enterprise-based career pathways that will enhance recruitment and retention in the manufacturing sector. The aim of these pathways is to accelerate career progression between the trade, technician and professional occupations to address skill shortages and improve career outcomes for employees.

Underpinning these pathways is the development of new paraprofessional qualifications (eg Associate Degrees) that reduce training time and enable professional recognition for technicians. The Australian Government should consider targeted funding for Associate Degrees to assist the manufacturing sector to create more attractive pathways and develop higher level skills, particularly in areas such as design.

The Department of Industry, Tourism and Resources has highlighted the importance of manufacturing firms securing a place in international supply chains to remain competitive (Global Integration Background Paper, 2006). There is considerable scope to improve the business skills of small to medium manufacturing enterprises, particularly in the area of logistics and supply chain management. The Australian Government should consider additional funding to support higher education providers to up-skill the manufacturing workforce in this critical area.

*Recommendation 2:*

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