

**Submission to the Productivity Commission Inquiry**  
**into the**  
**Post 2005 Assistance Arrangements for the Australian Automotive Industry Sector**  
**from**  
**Deakin University**  
**School of Engineering and Technology**  
**May 2002**

## **Introduction**

The School of Engineering and Technology supports the Australian Vehicles Industry's position that vehicle tariff's should not reduced below 10% after 2004.

Furthermore the School supports the automotive industry's position that tariff levels be maintained at 10% from 2005 and beyond and that a program of targeted support be provided to the industry in the areas of funding for industry specific programs at undergraduate and post graduate levels plus funding for the establishment of industry specific centres of excellence in research and development.

The School supports the automotive industry's position on the grounds of

- (a) competitive neutrality, when compared with vehicle tariff regimes in other competing countries which have not progressed to the same extent in their reforms as those of Australia and as a consequence this has placed Australia at a significant competitive disadvantage. This is evident from the substantial increase in vehicle imports (now approximately 60% of imports) since 1987 when the Button Plan was introduced and local vehicle tariffs began to be progressively reduced. and
- (b) the realization that the industry has been under constant change since the implementation of the Button Plan in 1987 and subsequent changes by various Federal Government's to the vehicle plan since that time and accordingly we believe the automotive industry requires a further period of stability and consolidation rather than a further period of change.

## **Background to the Submission**

It is important to note that the School of Engineering and Technology at Deakin University was re established in 1991 with the very active support of local industries and in particular the automotive industry which played a leadership role in the process.

Since 1991 and with the continued support of the Automotive industry the School has developed educational pathways leading from the VET sector to undergraduate and post graduate programs in Technology and Engineering to cater for the needs of the automotive industry.

Furthermore since 1997, the automotive industry has funded significant growth in the applied research activities at Deakin University with the formation of the STAMP and FAST industry based research and development programs.

The above initiatives helped to facilitate Deakin University's membership in 2000 of the CAST CRC.

Furthermore the above initiatives have significantly enhanced Deakin University's research capability that will underpin the future growth of innovative research for the Geelong manufacturing industry and the Victorian economy.

Throughout the re development of the School's programs, the School has work actively with the community and in particular the Automotive industry both locally and internationally to develop academic programs that incorporate leading edge curricula, systems and processes.

The School has worked actively in partnership with the automotive industry because the industry is recognized as being at the leading edge of technological research and innovation.

It is important to remember that because the automotive industry is at the leading edge of technological research and innovation, this has provided considerable benefits to other sectors of the Australian economy in terms of technology transfer, continuous improvement in systems and processes and the development of Australia's intellectual capital.

For example the introduction of the Total Quality Management paradigm followed by the introduction of the lean manufacturing philosophy are clear examples of how the Australian economy has benefited through the innovation and improved productivity facilitated by the presence of a strong automotive industry operating within Australia.

To continue with further tariff reductions at this time would be to the competitive disadvantage and therefore long term detriment of the Australian automotive industry and ultimately the Australian economy for the reasons outlined above.

### **Response to the Terms of reference**

In relation to the five terms of reference for the Inquiry, we would like to make specific comment on two, those being

- (1) Access the interdependence between vehicle assemblers and component producers and
- (2) Identify strengths, weaknesses and opportunities for the sector including major impediments to its long term viability.

#### **(1) Assess the interdependence between the vehicle assemblers and the component producers.**

Following the implementation of the Button Plan in 1987 and the subsequent reforms and improvements in the operating efficiency of the vehicle industry, the vehicle manufacturers and the component supplier companies have worked cooperatively to further leverage the industry's improvements.

These co operative arrangements have included the vehicle manufacturers working with the component suppliers to adopt enterprise specific systems and processes and the provision of leading edge training to facilitate quality improvements and the adoption of lean manufacturing techniques.

Over time this has resulted in the Australian automotive industry sector achieving one of the strongest periods of growth in the production and export of vehicle component and assembled vehicles and as a consequence a major contributor to Australia's recent economic growth.

However this situation could be further improved with a more coherent approach to education and training policy in both the Vocational Education and Training (VET) and Higher Education (HE) sectors

In the VET sector, industrial demarcations between industrial unions and the companies has made it difficult for the component suppliers to align their endorsed training with that of the vehicle manufacturers.

Because of these industrial demarcations the stakeholders are required to use different National Training Packages (NTP) in order to try and achieve the same outcomes in workplace performance.

For example the vehicle manufacturers and a small number of component manufacturers use a NTP developed under the auspice of Automotive Training Australia ITAB while the bulk of the component suppliers use a NTP developed under the MERSITAB.

In relation to the HE sector, during the period of the vehicle industry's reform, virtually all of the Federal and State government monies allocated to education and training has been allocated to entry level training in the VET sector.

As a consequence there has not been the same level of innovation and alignment in the HE sector to accommodate the emerging needs of the vehicle industry during the reform process.

Accordingly more targeted funding for the development of contemporary curriculum and the education pathways leading from VET to HE sectors would assist the industry in working more closely together to develop their human resources.

In addition the provision of specific funding for the establishment of dedicated centers of excellence in research and development for the automotive industry would further enhance Australia's technological capability and encourage a learning and research culture within the component suppliers.

The establishment of a National Automotive Institute with a charter similar to The Australian Maritime College in Tasmania would help to facilitate the development of a stronger learning and research culture across all sectors of the Australian automotive industry.

**(2) Identify strengths, weaknesses and opportunities for the sector including long term impediments to its long term viability.**

**Strengths;-**

- (1) The Australian automotive industry has a demonstrated capability to design, develop and manufacture low volume, high quality niche vehicles.
- (2) The comparative small size of the local industry enables the industry to respond more quickly to emerging trends by adopting new techniques in management and manufacturing systems i.e. TQM, 6 Sigma, Lean Manufacturing philosophy including JIT, modularity, ISO 9000, QS 9000 and ISO 14000.
- (3) Apparent low comparative cost of high technical labour in terms of technologists and engineers when compared with Europe and North America provides the basis for a viable automotive industry in Australia.
- (4) Culturally diverse population with a high level of disposable income means more discerning consumers which makes Australia one of the most competitive automotive markets globally.

**Weakness:-**

- (1) Lack of a coherent and holistic learning and development policy covering the VET and HE sectors.
- (2) Needs for stronger Research and Development incentives to encourage the global automotive producers to locate more of their R&D activities to Australia.
- (3) Continued reduction in local vehicle tariffs and a consequent increase in vehicle imports could result in the local industry being legislated out of existence.
- (4) It is not worth being the first nation to achieve zero vehicle tariffs while other competing nations operate under high vehicle tariff regimes which as a consequence places Australia at a competitive disadvantage.
- (5) Currently there is a critical shortage of people in Australia with a high level capability in CAE/CAM/CAD skills and accordingly the Australia automotive industry at considerable expense is often required to utilize itinerant contract personnel from overseas when a new model development is being undertaken locally.
- (6) Compared with other OECD countries, Australia lags behind with its investment in R&D as a percentage of GDP and this is demonstrated by the fact that manufacturing industry in Australia does not readily embrace an R&D culture.

**Opportunities;-**

- (1) With Australia's demonstrated capability to produce low volume, high quality niche vehicles like the Commodore, Monaro, Falcon etc, the Australian automotive industry should be encouraged with the appropriate Federal and State Governments support to develop it's intellectual capability and infrastructure to further capitalize on its strength.
- (2) The establishment of a National Automotive Institute (NAI) referred to previously to facilitate the above, would further enhance the Australian automotive industry's capability to compete globally. The collaborative automotive industry model established at Aachen University in Germany provides a good example of how the NAI initiative could effectively operate in Australia. This facility would service the needs of the major vehicle manufacturers and the component suppliers.
- (3) With Australian's current low level of expenditure on R&D as a percentage of its GDP when compared with other OECD countries, it is strongly recommended that the Australian Government actively encourage the development of a stronger R&D culture within the Australian automotive industry by reviewing and revising its current R&D incentive arrangements across all sectors of the business community.

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