Chapter 2

Future trends affecting the automotive industry

2.1   This chapter highlights the reliance Australia has on automotive transport and the unprecedented change facing the industry. It explores the need for a comprehensive and coordinated approach to policy development that fully incorporates all aspects of the sector and relevant government agencies.

Australia will continue to depend on automotive transport

2.2   Australia is a country that relies heavily on the automotive industry to overcome the tyranny of distance and achieve its economic potential through connecting people and places. Automotive transport also plays an integral role in establishing, maintaining and developing social connections and relationships.

2.3   While it is true that the majority of the population live in capital cities and generally have access to public transport, they still value the benefits provided by owning and using automobiles and related vehicles. The automobile is even more valued in regional and rural Australia, where it is generally the only form of transport available. The importance of the automotive industry to individuals is reflected in the fact that there are almost as many vehicles in Australia as people aged old enough to drive them.[1]

2.4   The automotive industry is also integral to moving the vast majority of Australia's freight task and, even when not used for the majority of a journey, is still essential in providing the final link in the supply chain. Indeed, the Motor Trades Association of Australia commented that:

> By 2020, we will have a national fleet of 20 million vehicles…We have no plan B in this country, despite assertions to the contrary. There is no massive public transport infrastructure planned. There are no massive alternatives to our reliance on road transport planned. So it is here to stay, and it is here to stay for the medium to longer term.[2]

2.5   With a growing population and aspirations of increasing economic growth and prosperity, there is no doubt that Australia's automotive industry will remain critically important.

Industry undergoing unprecedented change

2.6   While the future of the automotive industry in one form or another is assured, the industry has been, and will continue to be, subject to significant changes which will transform almost every facet of the industry. The industry will be shaped by a

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1   In January 2015, there were an estimated 18 million vehicles registered in Australia compared to a population estimate of 18.5 million people aged 17 years and over in June 2014. Australian Bureau of Statistics, *Australian Demographic Statistics*, Cat. No. 3101.0, December 2014 and Australian Bureau of Statistics, *Motor Vehicle Census*, Cat. No. 9309.0, July 2015.

2   Mr Richard Dudley, *Committee Hansard*, 8 October 2015, p. 5.

variety of different socioeconomic forces, including globalisation, environmental protection policy, rapid technological advances, workforce shortages and changing skill requirements, and shifting consumer behaviour.

2.7   As in almost every other area of society, technological developments and their adoption are likely to be the most influential source of change to the Australian automotive fleet. The MTAA explained the profound affect that technology is having on the automotive industry:

> Technology applied to motor vehicles has increased significantly over the last decade and has included the integration of mechanical, information and safety systems, and the increasing use of alternative construction materials in response to safety, efficiency and consumer demands.[3]

2.8   The development and widespread adoption of alternative fuels and propulsion systems is challenging long held beliefs about the infrastructure needs required to support the automotive fleet and the skills and information required to enable such vehicles to be serviced. While the uptake of electric vehicles in Australia has been relatively slow to date, improvements in range and the continued scale roll out of accessible charging infrastructure will undoubtedly increase the attractiveness of such vehicles to consumers. Overcoming similar infrastructure and information requirements will be necessary if there is to be wide-scale adoption of hydrogen and fuel cell technologies.

2.9   Intelligent Transport Systems (ITS) is another example of a profound technological change that will revolutionise the automotive industry in the near future. As the AutoCRC outlined:

> During the next decade, vehicle-to-vehicle and vehicle-to infrastructure will provide platforms for a smarter and more productive transport system…
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> Progressive deployment of Intelligent Transport Systems (ITS) technology will drive higher levels of productivity…through better just-in-time freight delivery; fuel cost savings and more efficient intermodal transport. It can also greatly enhance the driving/transport experience by providing accurate and adaptive route selection and real-time parking identification.[4]

2.10   The AutoCRC also highlighted the potential for Australian business to contribute to the development and implementation of these technologies:

> Australia has companies that are at the leading edge of this transport revolution and we also have some of the world's best researchers in areas such as sensor development, traffic management, optimisation, telecommunications, complex systems, control systems and artificial intelligence…Australia's strategic challenge is to rapidly and cost-effectively capture the productivity benefits that will flow to technology leaders and early adopters. Australia has a rare opportunity to capitalise on

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3   *Submission 30*, p. 18.

4   *Submission 34*, p. 3.

its existing intellectual assets and its deep experience in transport and mobility, to participate in the formation of the global ITS industry.[5]

2.11   The committee was pleased to learn that an Australian company, Codha Wireless, is exporting locally manufactured wireless sensor systems for use in the emerging ITS market through sales of five generations of on-board and road-side equipment.[6]

2.12   In the context of automotive manufacturing, the importance of technological developments to future sustainability was recognised in the *Australian Automotive 2020 Roadmap* ('Roadmap') in 2010. The Roadmap highlighted four areas—vehicle electrification, gaseous fuels, light weighting applications, and data and communication systems—where there appeared to be significant opportunities for Australian manufacturers to develop a strategic capability and a competitive edge in the global automotive industry.[7] And in the 5 years since the release of the Roadmap, a number of local manufacturers, such as Codha Wireless, have been able to harness the opportunities presented by these trends.

2.13   But change is not just driven by technology and change is not universally beneficial.

2.14   The automotive manufacturing industry will be severely affected by the cessation of vehicle production in 2017. While some automotive manufacturing will remain, generally focused on supplying the aftermarket, it will only be a shadow of its former size.

2.15   The committee holds deep concerns not only about the future of automotive manufacturing but manufacturing more generally in Australia. Professor Goran Roos outlined the role of the automotive industry in increasing economic complexity which, in turn, contributes to a country's wealth.

> Different industries have different complexities. The automotive industry has a high level of complexity. Countries like Germany and Japan have extraordinarily high complexity. They have a complexity which is something like 200 per cent of the complexity of Australia. That means their ability to create wealth is substantially higher…
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> The relevance to automotive of this is that automotive is the largest chunk at the moment of the Australian industrial structure with the highest level of complexity. That means, when that disappears, Australia's complexity will be reduced…[8]

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5   *Submission 34*, p. 3.

6   Ms Julie Holmes, South Australian Department of Planning, Transport and Infrastructure, *Committee Hansard*, 1 October 2015, p. 4; and Cohda Wireless, *History and Background*, http://cohdawireless.com/About/HistoryBackground.aspx (accessed 19 November 2015).

7   AutoCRC, *Automotive Australia 2020—Technology Roadmap*, Draft 6, 23 June 2010.

8   *Committee Hansard*, 13 March 2015, p. 33.

2.16   And the size of the manufacturing sector is fast approaching a critical level. According to Mr Gavin Smith, President of Robert Bosch Australia, the manufacturing sector:

> …has shrunk to something just above six per cent of GDP—the lowest in the developed world—and this is before the auto sector reduces… Below six per cent it is deemed there is no manufacturing sector that is able to be retained.[9]

2.17   Automotive manufacturing plays a pivotal role in supporting the broader manufacturing industry by providing an environment where innovative processes and workforce skills can be developed and transferred.

2.18   The committee also heard concerns about how change in the downstream sectors is making it harder for independent small businesses to continue trading. For example, some independent mechanical repairers are experiencing difficulties in reliably and affordably accessing repair and service information from manufacturers. The complexity of modern motor vehicles is driving automotive technicians to become specialists in specific models or repair processes.[10]

2.19   Such changes will have significant impacts on the skill requirements of workers in the sector which are currently not being adequately met through industry training programs.

2.20   In addition, the automotive industry also faces an image problem and much has been said about the 'death' of the automotive industry in light of the impending closure of passenger vehicle manufacturing. However, the automotive industry will continue to employ over 340,000 Australians after 2017 and there are currently over 15,000 skilled vacancies in the sector.[11] This image problem is adversely affecting the ability of the industry to attract and retain skilled technicians.

2.21   'End-of-vehicle-life', namely what happens to the more than 400,000 vehicles that come off the road each year, is another important policy area in the downstream sectors that requires attention. The committee notes that the MTAA and members of the Auto Parts and Recyclers Association of Australia (APRAA) are planning a trial of an end-of-vehicle-life project that seeks to gather information to inform a holistic approach to dealing with vehicle recycling. The Department of the Environment should look at and support moves by industry to improve end-of-vehicle-life management.

Recommendation 6

2.22   Government must recognise that the automotive industry will endure. Given this recognition, the committee recommends that the government devote the necessary resources across a range of government departments to ensure the

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9   *Committee Hansard*, 1 October 2015, pp. 14, 18.

10   MTAA, *Submission 30.1*, pp. 35–36.

11   MTAA, *Submission 30.1*, p. 14 and Auto Skills Australia, *Automotive Environmental Scan 2015*, p. 3.

process of transformation continues. This includes a redefinition of the automotive industry to recognise and support the role of all sectors, including, but not limited to, motor vehicle production, component making, aftermarket manufacturing, engineering and design, servicing and smash repairs, retail motor trades, sales support and training.

Coordinated policy approach required

2.23   In order to overcome these challenges and harness the opportunities, the automotive industry requires a comprehensive and coordinated approach from government. For too long, government policy around the automotive industry in Australia has focused on the manufacturing of passenger motor vehicles.

2.24   While the committee appreciates the importance of automotive manufacturing, greater emphasis needs to be placed on better supporting the industry as a whole. The announced closure of vehicle manufacturing in Australia provides additional impetus to develop a new approach to appropriately assist the entire industry through the transition period and beyond.

2.25   The interim report clearly articulated the rationale for taking a broader approach to defining the industry for public policy to foster the growth of the industry as a whole. The committee concluded that:

> …an overarching and internationally competitive policy framework is necessary to ensure that Australia remains a prosperous nation supported by a broad-based economy.[12]

2.26   Recommendation 1 from the interim report called on the government to work with stakeholders to develop an internationally competitive automotive policy framework for the entire industry. To achieve this, government departments should coordinate their efforts to attract new automotive investment and maintain existing skills and capabilities.[13]

2.27   The committee reiterates the importance of that recommendation and the support that stakeholders have provided. The MTAA, for example, submitted that whole of industry solutions are needed:

- for automotive industry sectors to adopt improved self-regulation, pursue greater business acumen and revitalise industry partner relationships;

- to unite peak automotive industry bodies behind issues common to the whole of industry—be it manufacturing, retail, service, repair, recycling or motoring;

- for industry and government partnerships to improve the integration and coordination of services and policy initiatives; and

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12   Senate Economics References Committee, *Future of Australia's automotive industry: Interim report*, August 2015, p. 21.

13   Senate Economics References Committee, *Future of Australia's automotive industry: Interim report*, August 2015, p. 21.

- for interventions that improve regulatory and economic reform and mitigate the social impacts arising from industry restructure and job losses.[14]

2.28   But the industry itself has not necessarily presented a united front:

> The automotive industry is characterised by diversification, segmentation, fragmentation, specialisation, and wide geographic distribution. It has sometimes proved difficult, if not impossible, to drive wholesale nation-wide change.[15]

2.29   Recognising this, industry stakeholders have been proactive in organising themselves. The MTAA organised and facilitated the Australian Automotive Summit (the Summit) in August 2015 which brought together key industry leaders, policy makers and government to talk about the future of the industry and determine strategies so Australia can retain an active but different automotive industry.[16]

2.30   Following the Summit, the MTAA proposed the establishment of an Automotive Industry Taskforce (the Taskforce) to represent the industry as a whole. The membership would include representatives from relevant government portfolios and members drawn from senior leadership roles in the manufacturing, engineering, design, retail, service, fuel, repair, recycling, aftermarket and other automotive sectors.

2.31   According to the MTAA, the Taskforce would enable coordinated policy responses to changing industry operations, strengthen government partnerships, guide government intervention and support a longer-term policy framework that charts a future road map for a sustainable industry.[17]

2.32   By representing the industry through a united voice, the committee considers that the proposed Taskforce has the potential to overcome some of the challenges for policy makers in developing strategies to understand and meet the requirements of this diverse industry, and its businesses and employees. The Taskforce could build on and employ an approach similar to the model used to develop the *Australian Automotive Roadmap 2020.*

Recommendation 7

2.33   The committee recommends that the Australia Government support the establishment of an Automotive Industry Taskforce—with representatives from industry, unions and governments—to facilitate a collaborative and coordinated approach to developing and implementing a national automotive policy framework which encompasses all sectors of the industry.

2.34   The Automotive Industry Taskforce would also build on the work of the AutoCRC and the Automotive Australia 2020 Roadmap Project. It would

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14   MTAA, *Submission 30.1*, p. 29.

15   MTAA, *Submission 30*, p. 3.

16   MTAA, *Submission 30.1*, p. 21.

17   S*ubmission 30.1*, p. 29.

develop strategies to understand and meet the challenges and opportunities associated with alternative fuels and emerging technologies as they affect the automotive industry, including electrification, light-weighting, gaseous fuels and fuel cell technologies, car sharing, telematics and autonomous vehicles.

2.35   The Automotive Industry Taskforce should also examine the findings of this committee inquiry and report back to government with further recommendations for action and strategies to address the issues raised over the course of this inquiry.

2.36   One of the key themes to emerge from the Summit workshops was a lack of knowledge and coordination among government departments with a role in the automotive industry.[18]

2.37   While the Department of Industry, Innovation and Science generally takes the lead role in policy affecting the automotive industry, there are a large number of the other departments with responsibilities that are associated with the industry in one form or another. These departments and their responsibilities include:

- Department of Infrastructure and Regional Development—responsibility for vehicles, roads and motor vehicle standards;

- Department of the Treasury—responsibility for taxation (e.g. fuel excise), small business, and competition and consumer affairs;

- Department of Employment—responsibility for employment services and workplace relations;

- Department of Education and Training—responsibility for training and skills development;

- Department of the Environment—responsibility for pollution and waste, including end-of-vehicle-life management; and

- Department of Foreign Affairs and Trade—responsibility for trade.

2.38   Given the sheer number of government portfolios that affect the automotive industry and the feedback from stakeholders from the Summit, a more coordinated government approach to policy development is warranted.

2.39   Indeed, it is imperative that government departments also develop a coordinated government strategy to deal with the impending job losses and economic impacts following the wind-down and cessation of passenger vehicle manufacturing.

2.40   At the hearing on 15 April, the committee was disappointed to discover that there was no government department or agency which seemed to be able to articulate an overarching approach and/or specific details about how the government was responding to the impending crisis in Victoria and South Australia.

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18   MTAA, *Submission 30.1*, p. 24.

Recommendation 8

2.41   The committee recommends that the government urgently develop and implement a comprehensive and coordinated strategy to:

- **avoid a social and economic catastrophe arising in those areas most affected by the closure of vehicle manufacturing; and,**

- **address the unprecedented structural adjustment occurring across the retail service, repair, recycling and associated sectors.**