



# The Future of the Automotive Transformation Scheme

SUBMISSION TO SENATE STANDING COMMITTEE ON ECONOMICS

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**WISeR**  
Informing Decisions







***The Future of the Automotive  
Transformation Scheme***

**Submission to Senate Standing  
Committee on Economics**

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## KEY FINDINGS AT A GLANCE

- The end of Australian automotive engineering and manufacturing poses urgent challenges to the economy, the Australian community, and to Australian governments. Automotive manufacturing is the most prominent of several manufacturing industries that have (or will soon) disinvest completely or very significantly from Australia.
- This poses the threat of the permanent loss of key and essential manufacturing capabilities that are critical to Australia's opportunities to compete in the global knowledge economy. Manufacturing is essential to economic complexity, which drives per capita incomes, and is predictive of a nation's future growth and the complexity of its exports.
- Automotive is complex manufacturing par excellence. It has long been our most sophisticated integrated value chain. Whilst the automotive closure underlines that Australia will in future struggle to survive in industries where scale and unit-cost are the basis of competition, 'new manufacturing' models have emerged from changes in technology and global supply chains, together with innovative business organisation and strategy. New manufacturing, based on short run production, high variability, and medium to high complexity and high value, has opened up opportunities for SMEs. New manufacturing also provides opportunities for high-cost countries such as Australia to fight wholesale deindustrialisation and to retain complexity.
- The challenge, then, is to apply the capabilities bequeathed by the automotive industry to new manufacturing industry opportunities and value chains, rather than lose them permanently.
- The proposed changes to the Automotive Transformation Scheme (ATS) would effect a \$900 million cut to its resources and bring forward its end from 2020 to 1<sup>st</sup> January 2018. It is argued that this would:
  - Hasten the closure of automotive supplier companies, reducing time and opportunity for possible industry diversification
  - Reinforce and amplify adverse regional impacts on the economies of South Australia and northern Adelaide, amongst others.
- The alternative is to realign and repurpose the ATS to take on the additional goal of assisting automotive companies to make the transition to new product opportunities and value chains. It is therefore recommended that the current resources and duration of the ATS be maintained, with the Scheme being given the remit to assist companies to make the transition and to diversify
  - To alternative products and value chains outside automotive, and
  - To niches in the global automotive industry, where feasible.
- Existing initiatives responding to the automotive closure are not of a scale adequate to the size of the challenge, although they contain worthwhile features.
- Baseline results estimate the aggregate impact of the automotive closure to be a net loss of just under 200,000 jobs nationally against the baseline scenario, to 2018, with a permanent loss of national GDP of \$29 billion.
  - Around 100,000 jobs are lost from the Victorian economy, whilst South Australia loses 24,000, with the balance shared amongst other states less dependent on automotive production. This represents jobs lost and jobs not created as a result of the closure.
  - The rate of job growth for the two automotive states is effectively halved over the forecast period.
- The City of Playford in northern Adelaide is forecast to be the most negatively affected LGA in Australia as a result of the closure. The closure coincides with the wind down of the Air Warfare Destroyer build. The negative effects on South Australia and northern Adelaide would be compounded by the importation rather than manufacture of the replacement for the Collins Class submarines, and policy uncertainty affecting investment in the renewable energy sector (amongst other things), denying the state and northern Adelaide their best opportunities for industry diversification.
- Now is the time for robust and well resourced growth- and innovation-promoting policies, to help counter deindustrialisation and support accelerated industry diversification into new manufacturing opportunities and value chains.
- A repurposed ATS could make a significant contribution to this urgent challenge.

## 1 OVERVIEW

This paper responds to the request of the Senate Standing Committee on Economics for submissions into the impact of the Government's Bill before the Parliament to reduce funding available to eligible companies under the Automotive Transformation Scheme (ATS).

The Commonwealth's legislation

- Brings forward the end of the ATS from 2020 to 1<sup>st</sup> January 2018.
- Gives effect to the Government's pre-election policy of cutting \$500 million from the ATS, and adds a further \$400 million cut, to effect a total cut of \$900 million.

The Commonwealth maintains that this retains \$700 million in the scheme for the remainder of its life. However, it is unclear as to how much of the \$700 million remains uncommitted and what proportion has been allocated already.

The ATS was established under legislation to provide assistance to registered participants for the production of motor vehicles and engines, and for investment in allowable research and development, and allowable plant and equipment.

With the end of Australian automotive production from 2017 at the latest, the Commonwealth appears to consider that fewer of the funds allocated to the ATS will be required and savings therefore can be made.

The contrary argument, advanced in this submission, is that the end of automotive manufacturing and engineering requires resourcing and intensive effort and facilitation, to effect industry diversification on a scale sufficient to reduce significantly, the on-going negative effects from the loss of this complex, interdependent value chain.

That is why it is argued that a significant proportion of current ATS allocated funding be made available for diversification of companies into new, complex global manufacturing value chains outside automotive.

The scale and scope of initiatives that have been put in place by the Commonwealth are insufficient to this task, although they contain useful and valuable elements and aspects.

The case for redirection of ATS funds to broader industry development and diversification (rather than return to consolidated revenue) is reinforced by consideration of other factors and impacts of the automotive closure. These include that the cuts to funding and duration of the ATS will

- Hasten the closure of automotive supplier companies, reducing time and opportunity for possible industry diversification
- Reinforce and amplify adverse regional impacts on the economies of South Australia and northern Adelaide, amongst others.

Now is not the time to withdraw from growth- and innovation-promoting policies, which would reinforce deindustrialisation trends in the aftermath of the resources investment boom, but to invest in accelerated industry diversification into new manufacturing opportunities and value chains.

## 2 THE FUTURE OF MANUFACTURING AND 'COMPLEXITY'

The Australian Workplace Innovation and Social Research Centre (WISeR) provided a submission, *Manufacturing and Innovation*<sup>1</sup>, and accompanying materials<sup>2</sup>, to the Committee's inquiry into the Australian

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<sup>1</sup> Worrall, L., Spoehr, J., *Manufacturing and Innovation: Submission to Senate Standing Committee on Economics. Australia's Innovation System*, 2014. Adelaide: Australian Workplace Innovation and Social Research Centre, the University of Adelaide.



Innovation System. The Committee is referred to *Manufacturing and Innovation* and *Strength in Diversity* particularly for a fuller treatment of issues at stake in the loss of the automotive industry, and the broader threat of deindustrialisation in Australia. In brief, evidence was provided in support of the following key propositions:

- Manufacturing is central to ‘economic complexity’ (how societies amass and utilise productive knowledge). Sophisticated products reflect high and diverse capabilities in local value chains – ‘economic complexity’.
- Complexity is the key driver of differences of income per capita between countries, predictive of a country’s future growth, and the complexity of its exports.
- Australia’s economic complexity has fallen dramatically over the past decade and a half.
- In advanced economies, manufacturing
  - Drives innovation and productivity growth
  - Is the biggest spender on R&D
  - Drives high value services
  - Has high multipliers through linkages to other sectors, and
  - As the largest component of world trade, drives ever-increasing specialisation and sophistication.
- Unless Australia takes action to diversify and transform its manufacturing, the Nation faces the permanent loss of essential economic capabilities and, with that, reduced capacity to develop new ones in the future.
- Although Australia will struggle to compete where scale and unit-costs provide the basis for competition, changes in technology and global supply chains, when joined with innovative organisation and leadership, provide high-cost countries such as Australia with opportunities to fight wholesale deindustrialisation, and to retain complexity. This is the model of ‘new manufacturing’, evidenced in nations such as Germany, Switzerland, the Scandinavian countries, and Singapore.

As argued in the abovementioned documents, effecting such a transition requires supportive government frameworks, facilitation and investment, amongst other things.

## 2.1 AUTOMOTIVE AND THE ATS

Much more is lost from the demise of the automotive industry than ‘merely’ the ability to manufacture, engineer and build cars. Automotive has been, and has to a large extent remained, Australia’s most developed integrated and complex value chain, despite the progressive lowering of local content in Australian production over the past decade.

Some of the enabling competences and technologies inherent in automotive manufacturing and engineering include: systems integration, materials science and engineering, process engineering, automation and control technologies, electronics and miniaturisation, digital content, sensing and simulation, high tooling skills, injection moulding, etc. The objective should be to identify and maximise applications for these capabilities outside automotive, in high growth local and global value chains in new manufacturing (whilst also promoting niche opportunities for local production into global automate supply chains, where this is feasible).

<sup>2</sup> These comprised::

1. Spoehr, J., Worrall, L., Sandercock, P., Eyre, J., & Molloy, S., *Assisting Transition: Assistive technologies opportunities and industrial transformation in South Australia*, April 2014. Adelaide: Australian Workplace Innovation and Social Research Centre (WISeR).
2. Spoehr, J., Worrall, L., *Strength in Diversity: Diversification, Innovation and Jobs. Commonwealth Review of SA Economy and Impact of GMH Closure*, January 2014. Adelaide: Australian Workplace Innovation and Social Research Centre (WISeR).
3. Spoehr, J., *Foundations for Industrial Rejuvenation. Lessons from International and National Experience*, January 2014. Adelaide: Australian Workplace Innovation and Social Research Centre (WISeR).
4. Spoehr, J., Worrall, L., *An Industry Innovation Hub* (summary), February 2014. Adelaide: Australian Workplace Innovation and Social Research Centre (WISeR).
5. Perrett, R., *Smart Workplaces: A project summary document*, July 2014. Adelaide: Australian Workplace Innovation and Social Research Centre, (WISeR).

To repeat: unless diversification opportunities are found rapidly, essential skills, capabilities and complexity will be lost permanently.

With the announced withdrawal of all automotive majors from Australia, tier 1 suppliers (many foreign-owned also) will also cease Australian production. Tier 2 and 3 suppliers tend to be smaller and locally-owned. Some exhibit the capacity and agility to either effect a transition to new products and value chains based on 'new manufacturing' characteristics of short runs, high variability, complexity and high value, or to latch on to niche global supply chain opportunities within the global automotive industry.

Therefore, a strong case exists to apply ATS funds to assisting companies to make the transition and to diversify

- To alternative products and value chains, and
- To niches in the global automotive industry, where feasible.

The issue is one of resources but also time: providing the time and a framework for adjustment – particularly of enterprises and supply chains – to provide opportunity for companies to diversify to new products and value chains. This 'enterprise adjustment' element has been under-emphasised in previous adjustment packages responding to large plant closures. For this reason, it is also important to reconsider the proposed truncation of the ATS to 2018.

There is every likelihood that the reductions of the ATS (in resources and timescale) will hasten company closures and magnify losses from the automotive closure. The consequence of lower support through the ATS could well be less time for companies to effect this transition. This will particularly be the case for the abovementioned tier 2 and 3 companies that may be able to make the transition to other areas, but for whom resources, and the time required to make the transition, are critical.

It is acknowledged that certain resources are being put in place to respond to the automotive industry closure. However, the amount and nature of funding does not approximate that required to effect a good transition, in which losses could be minimised and skills and enterprise capabilities retained as platforms for future industrial development.

The Growth Fund which, in the wake of the closures of GM Holden and Toyota provides \$100.6 million of Commonwealth funds over six years from 2013-14 towards new jobs, investments and economic growth in South Australia and Victoria, is resourced at levels that are not yet commensurate with the likely magnitude of the shock (see below). Previous adjustment schemes were much more generously funded, even though they followed significantly smaller shocks, which had also occurred during times of stronger economic growth.

The Manufacturing Transition Grants Program (\$50 million over three years) will provide grants of between \$5 and \$10 million for capital equipment purchase, plant alterations or extensions and for training in utilisation and maintenance of new plant and equipment, where these measures assist in transition to higher value added or niche activities. This represents a level of commitment to rapid industry diversification that is dwarfed by the size of the task, and appears to be restricted to a small number of firms overall.

Again, this is not to say that these initiatives are without merit. The Growth Fund does include provisions to encourage investment into 'Next Generation Manufacturing' and an Automotive Diversification Programme, together with measures for workforce adjustment and support for development of regional infrastructure.

It is also noted that the recent Industry Innovation and Competitiveness Agenda statement of the Commonwealth government revives the previous industry precinct model (at lower funding) through announcement of Industry Growth Centres. Funded at \$188.5 million over four years, these will focus on

five sectors of competitive strength<sup>3</sup> and will help build sector competitiveness and commercial partnerships between SMEs, large firms and researchers to accelerate innovation and new product development, focusing on building capability to enter global value chains and developing ‘annual industry knowledge priorities’ to guide research sector efforts.

These are welcomed. Once again, however, the key issue remains their scale and adequacy measured against the size of the challenge. It is to this issue that we now turn.

### 3 AUTOMOTIVE CLOSURE IMPACTS ON AUSTRALIA, SOUTH AUSTRALIA AND NORTHERN ADELAIDE

WISer commissioned National Economics to model the impact of the closure of the automotive industry<sup>4</sup>. National Economics estimated the aggregate impact to be a net loss of just under 200,000 jobs nationally against the baseline scenario, to 2018. Around 100,000 jobs are lost from the Victorian economy, whilst South Australia loses 24,000. The balance of jobs lost is shared amongst other states less dependent on automotive production. These figures represent the losses viewed as the total of jobs lost and jobs not created as a result of the closure. The rate of job growth for the two automotive states is effectively halved over the forecast period.

The effect on national GDP is a permanent loss of \$29 billion. The basic reason for the largeness of the impact is the fact that automotive is complex manufacturing involving complex supply chains and interdependences. The impacts therefore go well beyond the direct jobs lost and the usual second-, third and fourth-round multiplier effects in modelling.

This is the baseline scenario. The exchange rate is the fundamental determinant. A greater-than-baseline fall in the exchange rate to around 65 cents (and sustained at that level to 2024) increases the economic losses from the automotive closure. Because at this lower exchange rate, the industry would have been sustained at higher levels of activity than the baseline, the losses here rise to 270,000 fewer jobs and a \$44 billion GDP loss.

Beyond these overall aggregate impacts, the temporal and spatial dimensions are of great importance. National Economics modelled these by Local Government Area (LGA), quarter by quarter, for four years after the closure.

Of all LGAs in Australia, Playford in Northern Adelaide is projected to have the greatest impact in percentage employment change by location of work at the 16<sup>th</sup> quarter (four years) after motor vehicle industry closure at -15.8 percent.

This is followed by Hobsons Bay in the south-west of Melbourne at -13.8 percent, Hume in the outer north-western suburbs of Melbourne, predicted to be -9 percent, and Greater Dandenong in the south-east of Melbourne at a -7.1 percent decline in employment four years after motor vehicle industry closures.

The City of Playford, home to the GMH assembly plant, is the most disadvantaged LGA in greater Adelaide, and one of the most disadvantaged urban areas in Australia. Residents receive lower median weekly incomes than in Greater Adelaide (\$455 in 2011, almost \$100 lower than for Greater Adelaide). Almost one-third of Playford residents had a weekly personal income below the poverty line for a single person. At the 2011 census, the city’s unemployment rate was almost double that of greater Adelaide.

<sup>3</sup> Food and agribusiness; mining equipment, technology and services; oil, gas and energy resources; medical technologies and pharmaceuticals; and advanced manufacturing.

<sup>4</sup> *Full Motor Vehicle Closure: The Impact on Australia and its Regions, A Report for the Australian Workplace Innovation and Social Research Centre*, prepared by the National Institute of Industry and Economic Research, March 2014.

There is a lower level of educational attainment, and there is greater incidence of reliance upon government benefits or concessions<sup>5</sup>.

These are the facts currently, prior to the closure of automotive production and its impact on the City of Playford and northern Adelaide more generally. To gauge early impacts of the closure currently timed for 2017, WISeR undertook a Workplace Futures Survey of around 450 firms in the northern suburbs. This found that, in the wake of the announcement of GMH's closure:

- 33 percent reported at least some risk of closure
- Almost two in five employers believed they would have to shed staff
- Profitability would be negatively affected in retail (53 percent of businesses), manufacturing (45 percent) and construction (44 percent)<sup>6</sup>.

Coinciding with the automotive exit will be the wind-down of the Air Warfare Destroyer build.

Compounding this is continued uncertainty about whether Australian engineered and manufactured Future Submarines at Osborne will be abandoned in favour of imported units. Naval engineering is par excellence a knowledge industry, generating spinoffs and opportunities along local as well as global supply chains, and the promise of local manufacture made by both major parties held out the prospect not only of the sustainment of skills and capabilities used on the Air Warfare Destroyer program, but also of opportunities to reskill parts of the auto supplier base for this defence work, amongst other things. The overwhelming majority of such opportunities will disappear in the offshore sourcing option.

Similarly, uncertainties for businesses created by the review of the Renewable Energy target (RET) appear to be retarding growth and industry diversification opportunities in northern Adelaide. For example, Tindo Solar, Australia's only remaining manufacturer of solar cell panels, has warned it would likely not survive adoption of the Warburton Review recommendations, and that at the very least the company's planned expansion to 600 jobs, at a facility close to the GM Holden site, would not proceed. Concerns have also been expressed by energy systems company Zen, proponents of the Ceres wind farm, Senvion Australia, and others.

Presently, northern Adelaide is home to around 70 percent of South Australia's installed industrial capacity. Many of the capabilities acquired through this industrial concentration are capable of application to the above-mentioned areas, and others. However, this would require greater investment, support and facilitation than is evident at present. Realignment of the ATS to the new realities, rather than reducing its resources and duration, could make a major contribution.

## 4 CONCLUSION

The case and justification for growth- and innovation-promoting policies (rather than retreat from them) is greater today than for several decades past.

The Australian economy has been growing at below-trend rates over the past couple of years, and a continuation of this below-trend growth is forecast in the Commonwealth budget for the next two years. Critically, its expectation of improvement from 2016-17 relies, not on a recovery in business investment, but on strengthening household consumption and dwellings investment. But questions are being posed already as to the sustainability of current investment trends in property markets around Australia, and both household consumption and dwellings investment could prove vulnerable to even modest interest rate rises.

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<sup>5</sup> Hordacre AL, Spoehr J, Crossman S, Barbaro B. 2013. *City of Playford: Socio-demographic, employment and education profile*, A report for the Stretton Centre, Australian Workplace Innovation and Social Research Centre, The University of Adelaide, pp v-vii, 29,46, 57, 59, 60, 74

<sup>6</sup> Ranasinghe R, Hordacre AL & Spoehr J. 2014. *Workplace Futures: Survey - Playford and Salisbury* Adelaide: Australian Workplace Innovation and Social Research Centre, The University of Adelaide.

The investment phase of the resources boom is now over (with the partial exception of oil and gas), and the sector is now largely concentrated on capital intensive extraction operations, with little evidence of recovery in non-mining investment and activity in sectors such as manufacturing and construction. The reasons for this lack of compensating response include the overhang of high costs bequeathed largely from the boom itself (high exchange rate, despite recent moderation, and high input costs, particularly energy), as well as the fact that the boom hastened the end of many manufacturing industries.

Faced with these challenges, we should work with urgency to diversify the economy to participate in new knowledge intensive and advanced manufacturing value chains, recognising that unless such an accelerated transformation is able to be effected, critical capabilities are likely to be lost permanently.

A strong case exists to retain the ATS with the addition of clear industry diversification goals. WISeR therefore recommends that the current resources and duration of the ATS be maintained, with the Scheme being given the remit to assist companies to make the transition and to diversify

- To alternative products and value chains outside automotive, and
- To niches in the global automotive industry, where feasible.

## REFERENCES

- Worrall, L., Spoehr, J., *Manufacturing and Innovation: Submission to Senate Standing Committee on Economics. Australia's Innovation System*, 2014. Adelaide: Australian Workplace Innovation and Social Research Centre, the University of Adelaide.
- Spoehr, J., Worrall, L., Sandercock, P., Eyre, J., & Molloy, S., *Assisting Transition: Assistive technologies opportunities and industrial transformation in South Australia*, April 2014. Adelaide: Australian Workplace Innovation and Social Research Centre (WISeR).
- Spoehr, J., Worrall, L., *Strength in Diversity: Diversification, Innovation and Jobs. Commonwealth Review of SA Economy and Impact of GMH Closure*, January 2014. Adelaide: Australian Workplace Innovation and Social Research Centre (WISeR).
- Spoehr, J., *Foundations for Industrial Rejuvenation. Lessons from International and National Experience*, January 2014. Adelaide: Australian Workplace Innovation and Social Research Centre (WISeR).
- Full Motor Vehicle Closure: The Impact on Australia and its Regions, A Report for the Australian Workplace Innovation and Social Research Centre*, prepared by the National Institute of Industry and Economic Research, March 2014.
- Hordacre AL, Spoehr J, Crossman S, Barbaro B. 2013. *City of Playford: Socio-demographic, employment and education profile*, A report for the Stretton Centre, Australian Workplace Innovation and Social Research Centre, The University of Adelaide, pp v-vii, 29,46, 57, 59, 60, 74.
- Ranasinghe R, Hordacre AL & Spoehr J. 2014. *Workplace Futures: Survey - Playford and Salisbury* Adelaide: Australian Workplace Innovation and Social Research Centre, The University of Adelaide.



