

Innovation and Competitiveness in New South Wales

**Ai Group input on the Green Paper *Securing future innovation
and global competitiveness in NSW*, May 2022**

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About Australian Industry Group

The Australian Industry Group (Ai Group®) is a peak employer organisation representing traditional, innovative and emerging industry sectors. We are a truly national organisation which has been supporting businesses across Australia for more than 140 years.

Ai Group is genuinely representative of Australian industry. Together with partner organisations we represent the interests of more than 60,000 businesses employing more than 1 million staff. Our members are small and large businesses in sectors including manufacturing, construction, engineering, transport & logistics, labour hire, mining services, the defence industry, civil airlines and ICT.

Our vision is for a thriving industry and a prosperous community. We offer our membership strong advocacy and an effective voice at all levels of government underpinned by our respected position of policy leadership and political non-partisanship.

With more than 250 staff and networks of relationships that extend beyond borders (domestic and international) we have the resources and the expertise to meet the changing needs of our membership. We provide practical information, advice and assistance businesses need. Our deep experience of industrial relations and workplace law positions Ai Group as Australia's leading industrial advocate for employers .

We listen and we support our members in facing their challenges by remaining at the cutting edge of policy debate and legislative change. We provide solution-driven advice to address business opportunities and risks.

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Introduction

The Australian Industry Group (Ai Group) welcomes the opportunity to make this submission.

Our submission has two parts. The first addresses specific questions raised in the *Securing future innovation and global competitiveness in NSW* Green Paper of May 2022 and in the second we provide our more general policy input into innovation and competitiveness in NSW.

Part 1: Responses to Specific Questions Raised in the Green Paper

In this section we provide responses to Questions 1 – 10 in the Green Paper. Ai Group is an employer association with members from a wide range of industries across the Australian economy. While the Green Paper calls for responses in relation to a specific industry or business, our responses draw on our knowledge of businesses in a large number of industries.

In broad terms Ai Group agrees the transformative forces identified in the Green Paper are the major underlying forces bearing on Australia's economy and society.

That said, in some areas we view the issues somewhat differently.

- For example, the term “the digital economy” can create an impression of something separate from the rest of the economy. Instead, we find it more useful to characterise the digital revolution as the digitisation of economic and social activity. An analogy would be to talk about the electric economy in the second half of the 19th century rather than the electrification of vast areas of activity.
- In relation to the capitalisation on the growing consumer markets in Asia, we see the opportunity set in much broader terms. Australia's opportunities go well beyond the consumer markets in these economies and extend to the supply of intermediate goods, capital goods and financial services for example and to the direct and portfolio investment opportunities.

But such issues of detail aside, we agree that the following areas are fundamental:

- Digitisation
- Market growth in Asia
- Transition to net zero emissions

- Managing waste and the circular economy
- Linking to the global economy including through global supply chains
- Demographic dynamics.

1. Describe the top two or three transformative forces that will shape transition challenges and opportunities in your industry over the next 10 years.

While all are important, the top three we would identify are:

- The transition to net zero emissions
- Digitisation of economic and social activity
- Demographic dynamics

2. What effects do you expect these transformative forces will have on your industry (or on your own business) over the next 10 years?

The **transition to net zero** will impact emissions intensive industries particularly dramatically and will require technological changes; changes in location (in some cases moving offshore); and access to different skill sets. It also carries the risk of business failure, unemployment and associated community impacts on regional areas.

There are clearly opportunities in alternative methods and areas of production as substitution away from emissions intensive activities and products and towards alternatives occurs.

There are also important opportunities in areas of activity that generate offsets or carbon credits.

A major challenge in the transition arises from the current aversion to the use of carbon pricing. This implies a high degree of direct government involvement in directing and propelling the transition and carries an array of risks including that of selecting high-cost pathways to net zero.

Digitisation of activity is occurring rapidly.

The potential for changes in work, its organisation and location have become more apparent during the pandemic. The increased flexibility of work is opening up opportunities for workforce participation which were previously too costly.

Leading challenges relate to the constraint on the pace of adoption imposed by the availability of skilled personnel in specific enabling occupations as well as the lower-than-optimal digital literacy of the general workforce.

In smaller businesses in particular, information gaps and shortages of appropriate managerial expertise are holding back take up and the degree of advantage the economy could be achieving from digitisation.

Cyber security is presenting new challenges for businesses and regulatory changes associated with digitisation, to date mainly at the federal level, have been poorly targeted and are threatening to catch many businesses in the regulatory net where the costs of their compliance far outweigh the benefits of covering them with the regulatory requirements.

Demographic dynamics are presenting challenges and opportunities. The age and gender profile of the workforce continues to transform with significant increases in full-time female employment, part-time male employment and the employment (often on a part-time basis) of people aged over 65.

These trends are the product of labour supply and demand decisions, so employers are clearly responding to changing demographic forces. There are opportunities for further take up that can be encouraged and supported including by ensuring sufficient flexibility in work arrangements and forms of engagement for both employers and workers to find the opportunities they are seeking.

3. What action is your industry or business taking, or intending to take, to address the effects of these transformative forces?

Businesses are responding in a very wide range of ways to the **net zero emissions transition**.

Outside of agriculture the distribution of direct emissions in production is very highly concentrated and opportunities for action in most of these (energy generation and upstream manufacturing) face technological barriers and very high fixed investments. Clarity of regulatory arrangements is essential in this context and its absence has been a major inhibitor of action.

This may be about to change in Australia but given the false starts of the recent decades, there is a clear need for much more definitive policy direction than has been evident to date.

In the absence of regulatory clarity, the role of institutional investors has emerged as a major force and has rewarded, and in some cases extracted, commitments by larger public companies and other entities for emissions reductions and, in some cases, company-specific commitments to net zero.

Separately, many businesses have made or have investigated investments in energy switching and energy efficiency. There is significant untapped potential for further efforts in these areas.

In **digitisation** the range of actions is also very wide. Some are world leading adopters. Most businesses have taken at least initial steps in digitising activity. Nevertheless, a surprising number have done little and, for example, are still relying on fax machines for communication.

4. Are there critical constraints across the business operating environment (for instance, related to markets, skills, production capacity, technology, finance capital or infrastructure) that affect the capacity of your industry or business to take up opportunities?

The overwhelming constraint faced by businesses is the shortage of skilled personnel and the inadequacy of flexible training options. This has been reported for many years but has become very widespread in recent years as the scope to fill gaps with permanent or temporary migrants was absent. With migration resuming some of these additional pressures may ease over time.

Ai Group is well advanced in producing a report on skills and Australia's digital transformation and we will forward this report when it is finalised.

Businesses frequently report difficulties in accessing finance. Often this related to early-stage finance but is also found among businesses in 'traditional' industries which may be assigned a high-risk rating or low priority by the banks. The concentrated nature of Australia's banking industry may inhibit more adventurous lending.

5. Why would your industry be a suitable target for demand or supply side industry policy interventions over the next 10 years? Where in your supply chain would this intervention be most effective, and why?

As a broadly-based employer association, this is a difficult question.

As a general rule, we favour more generic policy responses than selective industry interventions. Our preference is for industry policy measures that develop business capabilities – particularly for small and medium sized businesses; that encourage innovation and collaboration; and address market failures inhibiting innovation, investment and employment.

Our more generic approach to industry policy is set out in the second part of this submission.

6. What are the key areas and opportunities in your industry where there are opportunities for NSW Government programs and actions to accelerate ongoing economic growth?

The second part of this submission can be seen as a response to this question.

7. Considering the transformative forces underpinning economic structural change, such as those described above, what are the benefits to NSW citizens of adequate and well-coordinated industry policies that accelerate this change?

Ai Group has a relatively recent policy paper on industry policy that is relevant to this question (see <https://www.aigroup.com.au/globalassets/news/policy-papers/2020/pppp---industry-development.pdf>).

In it we set out in some detail the roles we see for industry policy. To summarise:

While industry development is delivered by businesses and their workforces, governments and government agencies have critical parts to play in addition to ensuring the basic settings for the private sector to play its role.

Policy directions to more directly facilitate industry development in Australia include:

- *Coordinating the development of the specific industrial capabilities required to achieve desired levels of national resilience;*
- *Assisting the development of business capabilities, particularly among Australia's small and medium-sized businesses;*
- *Backing high growth industries and businesses;*
- *Supporting and promoting business innovation; and*
- *Helping to reduce the economic and human costs of industry transformation.*

8. Where do you think the NSW Government could make the biggest difference to encourage industry innovation and growth?

Of the areas listed above, supporting and promoting business innovation is likely to make the biggest difference.

As we discuss in the policy paper referred to above, business innovation is both disruptive and destructive and interventions, including proactive interventions to

reduce the economic and human costs of industry transformation is also critical and can assist in reducing opposition to, and fear of, transformation.

9. Are there any risks or costs from intervention that the NSW Government should consider?

There are potentially very high costs of intervention.

One of the more concise treatments of these, as well of the potential benefits of well-designed and administered industry policy, was set out by former Chairman of the Productivity Commission Gary Banks in the 2008 Colin Clark Memorial Lecture (see <https://www.pc.gov.au/news-media/speeches/cs20080806/cs20080806.pdf>).

10. What information would you like to see to demonstrate how progress is being made towards accelerating industry growth through NSW Government programs and actions?

- Honest and transparent assessment of progress towards clearly stated and pre-set objectives.
- Evidence of the timely removal of programs or initiatives that did not work and analysis of the lessons of failure.

Part 2: Policy for an Innovative and Competitive New South Wales

In this part we set out our policy input on a number of key policy areas:

- Research and Development
- Attracting Investment
- Supply Chain Support
- Government Procurement
- Trade Policy
- Skills and Training
- Energy
- Digitalisation

Research and Development (R&D)

Australia is recognised globally for its high-quality research and despite only having 0.3% of the world's population, we have contributed to over 4% of world research publications¹. However, Ai Group has heard that R&D is too costly and there is not enough support for local participation, with the current R&D tax incentive failing to encourage more research commitment. Similarly, businesses have indicated there are challenges to collaborating with universities given cultural differences. These differences include overvaluing of IP by universities and the difference in pace between a faster moving private sector and a traditionally slower moving research process. Or in instances, a disjoint between IP production at a university and its implementation in the industry.

We recommend:

- Government schemes and tax arrangements could better incentivise or support improved manufacturing industry-university collaboration through a focus on mutual benefit between businesses and universities. This includes government funded industry placements to encourage knowledge and skills sharing.
- R&D funding should recognise the external benefits that can flow from business R&D through contribution to knowledge that can be used by others. Public backing for business R&D activity to stimulate innovation that factors in flow on community benefit would be valuable.

¹ 'Partnering with Australia on Innovation, Science and Research,' Department of Industry, Science, Energy and Resources (2020) p.9

Attracting Investment

Private sector investment is fundamental to its future growth. It enables improvements in productivity, and therefore also the incomes of its employees, the returns of business owners, and the international competitiveness of the sector. This investment requires access to capital, profitable investment opportunities, and business owners and managers willing and able to take a risk and deliver outcomes in a competitive environment.

We recommend:

- NSW Government policy has a role to play in helping businesses access capital. This could include promoting success stories that highlight and celebrate achievement, and the role of finance providers in that success. It also includes the design of policy measures that leverage private sector capital without crowding it out.
- The NSW Government should recognise the importance of regulatory and tax regimes for securing a strong share of investment approval in a competitive national and global environment. The NSW Governments should deliver continuous improvements in its own taxes and continue taking a lead role in the national reform of taxation and intergovernmental finances.
- NSW government policy should seek to lift the ambitions and capabilities of businesses, particularly smaller and medium-sized businesses. This could be through tailoring policy to extend the capabilities of businesses that have exhibited strong signs of success and promoting case study materials that show the paths to success taken by other businesses.
- Infrastructure investments involving rail harmonisation, road and rail logistics systems, and marine logistics systems that improve reliability and ease of freight movement will attract investment to sectors currently struggling with supply chain concerns and help support national and regional industrial priorities (e.g., space and renewables). *Sans* such infrastructure initiatives from the government, private investment may be deterred from future investment based on existing structural challenges.

Supply Chain Support

The COVID-19 pandemic has exposed weaknesses in the operations of global and domestic supply chains. Australia requires supply chain infrastructure that enables and facilitates businesses to overcome logistics issues, move from human to digital systems, and provide integrated systems that are efficient and robust in changing environments.

Australia is a long way from overseas supplier markets. To strengthen the resilience of supply chains and to reduce input costs, industry will need to seek more diverse sources of supply, both from within Australia and overseas.

We recommend:

- Back business efforts to develop and adopt end-to-end integrated supply chain management systems that provide industry-wide and business-level efficiencies. Including support to set up circular economy models, which will enable resource use optimisation, reduce waste, and provide local sources of supply to help overcome international supply chain logistics issues.
- The NSW Government should resolve regulatory obstacles to the development of greater efficiency of ports enabled by infrastructure upgrades.
- Support from the NSW Government should align with national efforts that encourage efficient nation-wide freight movement to address known internal freight inefficiencies.
- Support the move from linear to circular supply chains through assisting business to invest in better product stewardship practices. This would include investment into recycling infrastructure including recycling plants and waste transport infrastructure, which can allow the utilisation of economies of scale needed to compete with offshore recyclers.
- Setting up circular economy infrastructure to aid domestic supply chains would also involve examining waste supply and export (such as e-waste), which would include regulating what waste is exportable and the ramifications such decisions would have on the environment and on the development of domestic recycling capabilities.

Government Procurement

Governments have significant market power and could better manage the opportunities and challenges associated with such a role. The NSW Government can create positive market impacts in line with broader policy goals, such as stimulation of domestic manufacturing capability, creation of good quality employment opportunities, management of the waste crisis, circular economy transition, and environmental sustainability more broadly. Barriers to access such as specifications and complexity, emphasis on upfront costs and a lack of

harmonisation need to be addressed, to better support domestic businesses to participate, grow and gain access to more local and global opportunities.

We recommend:

- Procurement processes should be aligned to the greatest extent possible, transparent, and subject to ongoing improvement to reduce the costs of tendering and compliance with procurement requirements and to improve access for domestic suppliers, particularly SMEs.
- The NSW Government should consider exploring a 'principles-based' approach to some elements of procurement to better facilitate innovation and manage competing interests (local content, recycled content, costs of transacting with public sector agencies, etc.).
- Procurement projects should be designed to enable businesses to leverage the relationships they build, or the products/processes they develop, to find more opportunities in local and global supply chains.
- The NSW Governments should be flexible on the definition of local content, and 'local' should apply to Australia broadly, not single states.

Trade Policy

Global Value Chains (GVCs) are at the heart of modern trade, with 75% of trade consisting of intermediate goods and services. As a significant exporter of mineral products, Australia's role in GVCs can look high. However, the GVC export participation rate among Australian manufacturers is among the lowest in the OECD. What is missing in the Australian trade narrative is the important role that imports, and outbound investment can have on improving competitiveness and gaining footholds in GVCs.

While successive free trade agreements have lowered tariffs on both our imports and exports, we do very little to support companies who wish to invest offshore to take ownership of their supply chains. Time and distance are contributing factors to GVC participation that do not work in our favour, and many companies can benefit by expanding their footprints closer to their customers or suppliers. Support for companies setting up offshore operations or distribution facilities is limited as most trade services are focused on transactional exports.

We recommend:

- Government should support international competitiveness. This support should go beyond a narrow view on export opportunities to creating a domestic regulatory environment that supports all trade engaged business.

- Provide more support to companies who undertake international expansion, including advice on local regulations, introductions to local officials and political risk insights.
- Build the capabilities of Australian businesses to adjust to post-pandemic trade practices.

Skills and Training

The development of skills in New South Wales remains fundamental both to future improvements in productivity and real incomes and to the broader availability of opportunity across the community. With critical labour and skills shortages constraining a dynamic, clean and digitally transforming economy, action is needed to alleviate skill pressures in the short term and address longer term structural change in the education and training system.

Ai Group's Australian CEO Expectations Report for 2002² found 73 per cent expected difficulty sourcing and retaining skilled labour during 2022. In 2021 Ai Group members³ stated they were particularly hard hit by shortages in the trades and technician occupations, along with technology, engineering, health, IT, and professional services roles. The shortfall in engineering skills alone is problematic when set against growing infrastructure pipelines. Added to this are the challenges in securing the skilled workforce required to underpin the future digital and clean economy increasingly impacting all industry sectors. Beyond technical skills there is an increasing need for human capabilities to navigate the new landscapes.

Measures that assist employers to source, train and employ workers with the necessary skills, and to speedily re-skill their existing employees, must be coupled with deeper reforms and increased investment in skills development that facilitates genuine lifelong learning. Developing the right skills for our post-pandemic economy requires ongoing effort.

We recommend:

- Developing a skills map that shows how the projected jobs growth over the next five years can be met.
- Increasing levels of VET funding.
- Supporting employers to upskill and sustainably develop their existing workforce.
- Ensuring ongoing attention to the development of foundation skills, including digital literacy.

² Australian CEO Expectations for 2002, Australian Industry Group, January 2022.

³ Skills Urgency: A National Imperative, Australian Industry Group, April 2021.

- Explicitly cultivating uniquely human capabilities and characteristics.
- Driving micro-credentials development.
- Enabling existing and older workers to develop baseline digital capabilities.
- Steering greater cooperation between the VET and university sectors.
- Enabling further VET, university, and industry partnerships
- Pursuing broader adoption of work-based learning and work integrated learning
- Exploring ways to support displaced workers transitioning into entirely new industries and roles.
- Aligning overseas migration systems to address skill shortages in a more dynamic manner. For example, by using salary thresholds in place of shortage lists.

Energy

Surging energy costs loom as a threat to energy intensive and trade exposed industries in NSW. By contrast reliable, cheap clean energy can help keep Australia's exports competitive in a carbon-constrained global economy. In turn domestic industry can play a role in delivering a local and global clean energy economy.

Australian industry had for many years an advantage in access to low-priced coal and gas and cheap electricity, largely generated by burning inexpensive coal. Our former advantage depended on the isolation of local energy resources from global markets, and has progressively eroded with export expansion, depletion of older resources, and the expiration of legacy energy contracts. In early 2022 the Russian invasion of Ukraine has turbocharged international prices for coal, gas and oil. Energy prices in NSW and eastern Australia are at historic highs.

The current energy crisis needs a response from State and Federal governments. Immediate options are unattractive, with financial support for the most vulnerable household and business users the most plausible option. Medium term options will involve reducing reliance on coal and gas by speeding the energy transition on both the supply and demand sides, through acceleration of renewables, transmission, storage, biogas, hydrogen, electrification, and energy efficiency. Ai Group is confident that a new long-term Australian energy advantage can be constructed.

In a clean economy there are many sorts of opportunity: producing clean energy; supplying materials and equipment to the global clean energy sector; making clean energy-intensive products; and construction and infrastructure to support it all. However, our clean energy advantages are not unique and other economies have strong clean energy potential too. In a competitive global market where many are targeting clean energy, we will need to work to ensure our place.

We recommend:

- Industry policy be guided by NSW's clear vision of net zero emissions by 2050, and the pursuit of long-term competitive advantage in a net zero emissions world.
- Work with the Commonwealth, other jurisdictions, industry and other stakeholders to identify the options for acceleration of energy transition projects and efficiency upgrades in response to current, and likely protracted, high energy prices.
- Take steps to reduce natural gas demand through efficiency; and fuel-switching to biogas, hydrogen and electrification as appropriate. New gas supply options should be facilitated only where they make long-term sense and can be developed with community safety and consent.
- On electricity, we should continue to develop and implement significant reforms to demand side participation, generation and transmission coordination, and resource adequacy.
- Enhance power networks in NSW and interconnections to other regions, accelerate the development of new infrastructure, and reduce the risks to energy users.
- NSW should manage its coal closures effectively, with adequate notice, alternative investment and fair treatment of affected workers, communities, and supply chains.
- We should aim for globally competitive costs for energy infrastructure delivery. NSW and Australia's success in reducing finance costs, delivering timely and stable regulatory decisions, and increasing construction sector productivity will play a significant role in determining our energy competitiveness.

Digitalisation

COVID-19 has highlighted how interconnected many businesses are and digital technologies has been an enabler for many businesses to remain open and sustainable. This unstable environment presents an opportunity for industry to emerge more globally competitive by taking fuller advantage of Industry 4.0 and digitalisation, as well as cyber security, where these can play critical parts of Australia's technology led recovery to the COVID-19 pandemic.

Anecdotal reports suggest that businesses who already have digital transformation projects underway reprioritised and accelerated their projects to respond to the immediate impact of COVID-19, driven by social distancing and quarantine safety measures. But the gap between Industry 4.0 leaders and other businesses could be substantial – and the effects of this pandemic have the potential to swing that pendulum either way. There are also various regulatory initiatives underway that have their own specific mandate that may inadvertently stifle innovation and investment in productivity enhancing initiatives.

We recommend:

- The NSW government should also explore arrangements that drive business uplift of Industry 4.0 activities. This could include through the provision of advice for SMEs; publication of cases studies of successful adoption; commercial contracts, export/trade activities, supply chain expectations, and procurement and tender processes.
- The NSW government should coordinate with the efforts of other state governments, regulators and industry. This includes having regard to relevant cyber security matters arising from the critical infrastructure security reforms which could impact on jurisdictions including in NSW.
- To help support industry including SMEs, Government could undertake the following:
 - Give proper consideration to non-regulatory options to address inhibitors against businesses from properly investing in Industry 4.0, digitalisation and cyber security.
 - Address general business issues around Industry 4.0, digitalisation and cyber security which should also benefit SMEs.
 - Explore ways to alleviate business pain points associated with Government activities that require cyber security compliance.

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