Industry Policy

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Preface

Industry policy is most of all a tool to steer a nation or region's industrial structure in a desired direction.

This document provides an overview of the key issues which must be considered when developing an industry policy, including the principles of Just Transition and tools available to determine appropriate and feasible opportunities.

Part I Introduction

Industry policy is big and unwieldy. It encompasses so many kinds of policy including:

- the future of work
 - jobs and skills of the future
- just transitions
- economic complexity
- job quality

1 Planning

Part II A Plan for Industry Development

Note

Rebuilding the manufacturing sector in Australia will not be achieved without planning. This starts with an understanding of the current structure of the economy, in conjunction with a vision for what we want the future to look like. Planning means setting targets - aligning with regional and national objectives, with specified start and end dates.

What is Industry Planning

Industry Planning is about developing a strategy for the direction of the economy. It can take two forms. One, in favour since the 1980s, prioritises market forces and price signals, letting private capital dictate the structure of the economy into one which generates the most profit. Under this approach, Australia's economy has become fundamentally weaker, with a completely hollowed out industrial structure. As such, we are now over-reliant on bulk exporting raw minerals, with the economic and social opportunities from value-added manufacturing activities occurring offshore. This approach also has led to a severe vulnerability in our economy from external shocks, and geopolitical instability. These outcomes should not be seen as inevitable. Rejecting the concept of industrial policy and strategy is itself a strategy.

The other form of Industry Planning is an active strategy which seeks to prioritise and develop certain sectors of the economy. It is primarily a strategy of identifying what we want to be able to do and what we want to be able to make. The manufacturing sector is key to this strategy. Manufacturing generates high returns to the economy, and to society, through innovation and productivity growth, investment in research and development, and its linkages to other key sectors of the economy like agriculture and mining. Active industrial policy and government interventions have been gaining traction in other parts of the world as nations seek to secure their supply chains, boost domestic manufacturing output, and create high quality jobs.

Industry Planning primarily requires an understanding of what, when, and where. It focuses on the creation of *new* markets for products and services, rather than on fixing market failures in existing sectors. These new markets are job and value creating, and are aligned with broader national missions, such as de-carbonisation or re-industrialisation.

Planning: What



Where do want to get to, given current strengths and weaknesses?

Opportunity identification is a key aspect of Industry Planning. This requires **formally** identifying existing and future opportunities, and confirming these opportunities against a set of criteria, including:

- current and future strengths and weaknesses
- competitors and suppliers
- international market conditions and industry demand characteristics
- minimum efficient scale and barriers to entry
- the size and economic significance of the opportunity
- decisive points in the supply chain

Australian Industrial Transformation Institute (2021)

Through this approach, dedicated sectoral plans can be developed, for each of the identified target industries or sectors. It is also important to consider the impact of emerging technologies and business models on the future of work, including their relevance to existing industries, and potential future industries, as well as how our current capabilities, and areas of potential competitive advantage can align with gaps and opportunities in global and domestic supply chains.

Planning: When

Note

How do we get from where we are, to where we want to be?

A pathway for development from where we are to where we want to be needs to consider specific strategies, interventions, policies and programs. Through this, sector strategy roadmaps can be developed, with defined targets and timelines. The question of timing can also be factored in for regions undergoing industry closure which need jobs.

Planning: Where

Note

Which locations should be prioritised for targeted industry investment?

Having a plan in place can help regions facing industry closure or workforce transition. Knowing what industry development to prioritise creates opportunities for job creation in regions facing job losses. Industry closure is accompanied with dates, providing a timeline for when job losses will occur, and when new jobs will be needed. Waiting for each announcement to start thinking about the number of workers affected, their skills, and support required risks regional

decay, population outflow, and negative psychosocial impacts. Additionally, it is costly, time consuming, and inefficient to continually be undertaking. A plan for industry development with associated targets and timelines means that opportunities can be aligned with closures, projects are ready to roll out when required, and jobs are created in time to utilise the skills of impacted workers.

Industry Planning also has the benefit of using demand side levers to promote investment in products and services for industry to provide. The Government is thus able to use its substantial buying power through procurement policies to achieve its goals. Industry Planning focuses on the creation of new markets, not simply fixing market failures in existing markets. By defining the markets to be created, Government policy can be used as a lever to create high paying, high quality jobs, build local supply chains - providing sovereign capability, and provides a pathway for workforces impacted by industry closure to find meaningful employment in adjacent industries, and do so in a way which minimises negative impacts.

Part III Just Transition

The best worker support program will be useless without good quality jobs to transition into. The creation of good quality jobs must be a core focus of all transition plans.

2 Large scale job loss overview

Large scale job loss, industry closure, company closure, and industrial disruption are often used interchangeably – regardless, the displacement of workers as a result of this kind of disruption has been, and will continue to be, a significant feature of established and emerging economies. Whether that is because of decarbonisation, climate change, automation, structural adjustments or business model innovation (Barnes, et al., 2021; Beale, 2024) is irrelevant. The intersection of these factors is likely to lead to more frequent, wide-spread, and concurrent disruptions. Which, if not adequately addressed, will compound the more serious medium- and long-term impacts of large-scale layoffs.

Likewise, the further along the decarbonisation 'pathway' we progress the more complex transition becomes - as company closures become industry closures and workers become more dependent on emergent and emerging industries.

From a workers' perspective, large-scale layoffs are a similar experience regardless of the reason. In any case, large-scale job losses pose three central and interrelated problems: what happens to the workers; to the industry; and to the region - in the immediate aftermath and over the medium and long term.

The Albanese government passed the *Net Zero Authority Bill 2024* (**The Bill**) and established the Net Zero Authority (**The Authority**). Both of which cover the - whole or part - closure of a **coal-fired** or **gas-fired power stations**.

This document is intended as a guide for unions seeking to navigate and mitigate the impact on workers at closure of gas- and coal- fired power stations **and** large-scale closures and industrial disruptions not covered by The Authority. It distils learnings and best practice from recent closures in Australia to assist unions to respond quickly and effectively to the announcement of a large-scale layoffs.

The impact of any given closure both shapes, and is shaped by, the economic and regional setting in which it occurs. No two shocks are the same, and so we must be cautious about any attempts to *identically* replicate success stories - what worked in one instance will not necessarily do so in another.

Closure interventions require a clear understanding of the severity of the problem to inform the level of support needed to mitigate both the direct and indirect short-term and long-term flow-on impacts. Effective management of large-scale job losses require a holistic transition response that simultaneously considers people and place, jobs and skills, and goals and strategies - now and into the future.

This document supports early union engagement by providing an overview of the impacts and common risk factors following large scale layoffs and actions unions should consider advocating for. While the scale and shape of support may change, the components remain largely the same.

This is intended to supplement any in-house expertise and help reduce replicating work. It provides an overview of common individual and structural risk factors for workers in transition.

Past closures show us that without proper support, large-scale layoffs can have serious individual, regional and national repercussions. They can have a devastating and lasting – sometimes intergenerational - financial and psycho-social impact on workers, their families, and their communities (Spoehr, 2014; Beale, 2022; Beer, et al., 2006; Barnes & Weller, 2020).

The first step to managing an industry closure requires an understanding of the context in which the closure is occurring. A survey of the impacted workers should be undertaken as soon as possible to get a clear understanding of the workforce and tailor the response accordingly. The survey should include employer and contract type, role, qualifications and skills, age, gender, migrant status, and employment tenure. Likewise, the local employment landscape needs to be mapped to understand what opportunities are available to manage the transition.

With proper planning, an industry closure is an opportunity for industry and regional development. This requires accurate mapping of the relationship between different jobs in the region, and how best to apply the skills available in these jobs into new areas of strategic, regional, or national importance.

Workers and their communities should not be left to bear the brunt of business decisions, and a closure/transition should not be considered a success even if most of the affected population has returned to a pre-crisis level, if others have been pushed into acute stress.

3 IMPACTS OF LARGE-SCALE JOB LOSS - Individual, Community and Regional

This section provides an overview of some of the serious impacts of transitions to inform and empower workers and their representatives.

3.1 Individual Impacts

Individual impacts are not distributed evenly. Older workers, lower-paid workers, those from new migrant backgrounds, or who do not speak English fluently, are more vulnerable to periods of long-term or cyclical unemployment (Bankwest Curtin Economics, 2018).

Beyond the loss of income, large scale job loss also poses a real risk to workers physical and mental health through periods of extended unemployment and the loss of social support networks (Davies, et al., 2017). In addition to feelings of grief and loss, risks to individuals include, but are not limited to, increased rates of unhealthy behaviour (smoking, drinking, and drug misuse), anxiety and depression, higher rates of morbidity and mortality, and in serious cases suicidal ideation (Beer, et al., 2006; Marmot, et al., 2006; Beale, 2022).

This includes the exacerbation of the well-established ill-health impacts of unemployment because mass redundancy can lead to an increased competition for work, extending individual periods of unemployment and pushing the impact into the community beyond the directly impacted workforce.

A significant finding from Beale's (2022) study of the closure of the automotive industry in South Australia was that retrenched workers who did find secure work did not report *any* poor mental health outcomes. This underscores the importance of quality of work as a protective factor for these workers.



Effective transition programs need to invest in the social, emotional, and financial support of retrenched workers and their families. Holistic support programs are about more than *just* finding work.

3.2 Impacts on Families

Unemployment, and specifically non-voluntary retrenchment, can also significantly impact the mental and physical health of workers' spouses, children, and extended families. Some reports indicate that the effect on spouses' health can be 'almost as high' as redundant workers (Davies, et al., 2017).

The flood of retrenched workers can displace existing job seekers who are less recently employed extending and compounding their period of unemployment.



Recommendation

Whenever possible transition support should be extended to the families of impacted workers and transition plans should also beware of exacerbating disadvantage in a region.

3.3 Impacts on Community and Regions

In addition to the overarching economic environment, transition pathways are also shaped by their local and regional context. The regional context includes:

- Contractors and the immediate supply chain
- other businesses and industries in the region
- the community and support networks that sustain the people who live and work there

The towns or regions in which closures occur tend to feel the impacts most acutely. However, the impacts of contemporary closures are also dispersed over a wider zone than closures of the past and are likely to extend beyond the clearly defined borders of local government (Chapain & Murie, 2008).

Single-industry regions are at greater risk of extended periods of unemployment because it is less likely that the available work will require the same skillsets as the industries shedding labour (Beale & Gamble, 2024; Beer & Evans, 2010; Spoehr, 2014).

The loss of a major employer can also have a detrimental economic impact on local business activity through the loss of income to the supply-chain as well as local stores and cafes frequented by the workforce. Inter-industry linkages mean that small businesses outside the impacted industry can suffer negative outcomes – if the population shrinks or retrenched workers reduce their spending.

The loss of cash and in-kind donations to local schools, not-for-profits and other community organisations that are common practice for larger businesses can also have serious community

impacts. This might seem a flippant consideration, but these donations often make up a significant portion of a community club's income. This is especially important given the role such organisations play as 'third spaces' in building community resilience and combatting social isolation.

This is an important consideration when gathering political and community support: the impact of large-scale layoffs is not the exclusive domain of the retrenched worker.

4 PART ONE: Risk Factors and Protective **Factors**

This section provides a brief overview of common risk and protective factors following large scale layoffs. It provides short insight into why each factor is a concern and what action can be taken to counteract it.

4.1 Individual Risk Factors

Transition support needs to be aware of individual risk factors. A survey of the impacted workers should be undertaken as soon as possible to get a clear understanding of the workforce and tailor the response accordingly. The survey should include employer, contract type, position, qualifications and skills, age, gender, migrant status, and employment tenure. Likewise, policy makers need to map the local employment landscape to understand what opportunities are available to manage the transition.

Effective transition programs need to conduct mapping of the workforce to identify the proportion of at-risk groups and to assist with skills mapping and matching.

4.1.1 Employment type

Transition outcomes can vary significantly between the 'main' closing employer and contracted and supply chain workers. Historically, this has been because contracted and supply chain workers have not been able to access the same level of transition support and access to services.



Recommendation

All impacted workers, including those who are contractors, or linked through supply chains, must have access to the same level of transition support.

4.1.2 Age

Older workers are more vulnerable to long-term and cyclical insecure employment and unemployment (Bankwest Curtin Economics Centre, 2018; Davies et al., 2017). Older workers often find themselves working lower-quality jobs after a closure or forced into early retirement.



Recommendation

There is a real danger for workers who fall into the gap between being "too young to retire and too old to retrain". Although these categories are largely socially constructed, they have been shown to have material impacts. These workers are likely to need extra and targeted support. For example, this might include digital literacy training.

4.1.3 Gender

Many of the industries most likely to be directly impacted by decarbonisation are male dominated. Male labour force participation rates have been falling for decades and nonvoluntary part-time work for men has increased dramatically.



Recommendation

Gendered impacts manifest differently across different industries, but it is important to understand the gendered nature of the impacted workforce and of the broader industry.

4.1.4 Migrant workers

Migrant workers can be vulnerable to long periods of insecure employment or unemployment after a large-scale layoff and their experience of it may be exacerbated by the absence of citizenship rights (Barnes & Weller, 2020).



Recommendation

Migrant workers may need greater, and culturally and linguistically targeted, assistance to ensure they find suitable, good quality work in a timely manner.

4.1.5 Employment Tenure and Quality of Existing Work

Workers who have enjoyed long term good quality work and are financially stable may be insulated from some of the more immediate and negative aspects of industrial disruption. In contrast younger and insecurely employer workers are unlikely to have a personal financial safety net to cushion the transition.

Recommendation

A long tenure in a stable job may act as a protective factor but is not a guarantee. It should not be assumed older workers nearing retirement will be financially secure.

4.1.6 Transition funding and support programs

Worker's transition funding and support programs should be made available as soon as possible and remain available for a period after retrenchment. After the auto closure, workers had to access federal, state and company funding through three separate processes – that also had separate guidelines. This was confusing and ultimately meant many workers did not access all the retraining funding that was available to them.

• Recommendation

Workers should have access to evidence informed advice that helps them identify growth industries to increase the likelihood any training will help them get a job.

Recommendation

Wherever possible retraining funding should be pooled, meaning it is available in one place. As a guide, auto workers in SA were eligible for a cumulative \$3,800 to \$4,300. These figures are inclusive of State, Federal, and Company funding - the variation is dependent on whether they were working at Holden or in the supply chain.

4.2 Structural Risk Factors

4.2.1 Quality of work

High rates of insecure work in the broader economic landscape is a pernicious problem for transition programs. Likewise, worker's employment outcomes are unlikely to be static or linear. Workers who take on lower quality work after a closure are more likely to churn through multiple jobs and are at greater risk of experiencing negative financial and physical and mental health outcomes.

Without adequate and targeted support workers will struggle to find work of equal or greater quality than the jobs they have lost.

Historically, transition programs have focused on getting workers into new employment as quickly as possible – often at the expense of job quality. And, if present at all, their approach to job quality has often been grounded in the somewhat euphemistic 'expectation management' - that is, preparing workers to accept lower quality work.



• Recommendation

Good quality jobs need to be a core focus of all transition support programs. Without targeted support it is ill-advised to assume that the first job a worker finds will be the right job and pushing workers into poor quality work just pushes the problem into the future.

4.2.2 Timing – The Importance of an Early Intervention and a Long Tail

Industrial disruption presents both short- and long- term problems: the initial wave of unemployment and then the ongoing regional socio-economic impacts. These elements are interrelated: in general, the greater forewarning workers, business, and government have of a closure, the better. Greater warning provides time to plan and, assuming the time provided by the forewarning is well utilised, the processes put in place moderate some of the more severe and lasting negative ramifications – known as the aftershocks.

Equally important, however, is ensuring transition support has a 'long tail'. Research from past closures warn that many of the most negative social problems do not emerge for 18 to 24 months, when retrenched workers' payouts diminish and holidays end (Henderson & Shutt, 2004).

Recommendation

Early 'intelligent intervention' beginning with the forewarning of the closure (be it a formal announcement or otherwise) and carrying on long after the last day on the job is key to handling closures well (Spoehr, 2014; Beale, 2022).

4.2.3 Exploitative training providers

It is important to be aware of unscrupulous private training providers that can appear following the announcement of large-scale layoffs – especially if that announcement is accompanied by re-training funding for impacted workers.



• Recommendation

Workers should be warned and assisted to identify genuine retraining opportunities.

4.2.4 Single industry towns – population outflow

In regions highly dependent on one industry, large scale layoffs risk fuelling population outflow.

Industrial linkages mean that the impact of a closure spreads beyond the directly impacted workers to other industries in the region, causing additional employment and industry output losses.

Impacted workers may move to find work and, in serious cases, this can create a chain reaction in the broader population.

Part IV Economic Complexity

Economic complexity is a measure of the knowledge or capabilities embedded with an economy.

When we say capabilities - we mean the knowledge, skills, human and physical capital, and other endowments such as access to raw materials or climate, that a country or region possesses, enabling it to produce certain goods or services. Capabilities can be determined by trade data, or other data sources such as employment by industry.

In principle, the more capabilities a country has (i.e., the higher its economic complexity), the more ways these capabilities can be combined to create new or unique products which can not be created elsewhere.

Economic complexity quantifies and describes the differences in capabilities between economies at a point in time. Differences in economic complexity can explain why there are differences in per-capita Gross Domestic Product (GDP) (Hausmann 2013).

A key outcome from economic complexity analysis is the importance of path dependency. The future development patterns of a country or region can be predicted based on its current capabilities. This builds on a theoretical concept called *relatedness*.

Relatedness is a measure of the probability that a country or region who is specialised in one product will also specialise in another product.

Some examples include:

- a country that exports t-shirts is more likely to also export pants because of the similarity of skills and equipment required
- a region that specialises in copper mining is more likely to also specialise in other kinds of mining because of the similarity of skills, equipment, and co-location of minerals
- a region that exports bananas is more likely to also export mangos because of the similarity of climate

Relatedness between jobs or products can be due to technological sophistication, knowledge spill overs from one activity to another, similarities in inputs or outputs in value chains, or the presence of requisite institutions.

5 Economic Complexity in Australia

In Australia, there has been a continuous decline in the contribution of the manufacturing sector to overall GDP, and manufacturing employment to the total workforce. While deindustrialisation has been seen across other countries, the decline in Australia has not only relative to other sectors, but absolute. The decline of manufacturing in Australia was punctuated by announcements in 2013 and 2014 that local automotive manufacturing would come to an end. As such, the decline in Australia's ranking in economic complexity, as shown in Figure 5.1 has been rapid. Australia's economic complexity now ranks 102nd, similar to Namibia, Ghana, and Botswana.

Outside of the broader trend of de-industrialisation, the question remains: what industries can replace those which are in decline, or have been lost? Research shows that different policy responses are required depending on the current level of complexity (Hidalgo 2021)

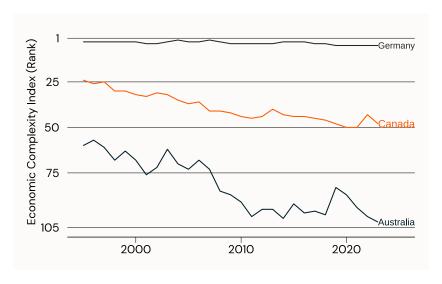


Figure 5.1: Economic Complexity Index, Australia, Canada, Germany

6 Embedding Economic Complexity into Industry Policy

The deliberate lack of industry policy in Australia in favour of policy based on the rationality of markets has resulted in an economy which prioritises sectors and activities that generate the highest returns to capital.

Active and directional industry policy instead prioritises sectors and activities that provide higher returns to society. Such sectors:

- embody greater knowledge intensity and have high positive spill-overs (for example, local/domestic processing and value-adding of minerals compared to dig and ship)
- can assist with large scale societal challenges, such as the decarbonisation/net zero agenda (and capturing the economic benefits), building and retaining sovereign capabilities, and generating inclusive economic growth (reversing inequality).
- have the potential to create high quality and secure jobs

Economic complexity analysis provides a quantitative evidence base for how to best direct existing industrial capabilities towards building an economy that works better for everyone. Economic complexity is a method for identifying both the existing productive capabilities of a location, but also the links between existing capabilities and potential future capabilities/opportunities.

This is not a new idea:

The concept of smart specialisation focuses on the importance of location and regional knowledge. Smart specialisation has been used as the basis for industry and innovation policy throughout Europe - to direct regional economies along place-based technological trajectories, based on the existing knowledge present in the region (Rigby and Essletzbichler 1997). Smart specialisation policy realises that - because knowledge is location dependent - improved development outcomes can be created by focusing on distinctive and original areas of specialisation, rather than simply copying what has been successful elsewhere (Dominique Foray, Paul A. David, and Bronwyn Hall 2009) . That is, what has been successful in one region (i.e. Silicon Valley) may not necessarily work in other regions.

Table 6.1: Employment capabilities, Whyalla

lga	indp
Whyalla	Natural Rubber Product Manufacturing
Whyalla	Basic Ferrous Metal Manufacturing
Whyalla	Sheet Metal Product Manufacturing (except Metal Structural and Container Products)
Whyalla	Water Freight Transport
Whyalla	Waste Treatment, Disposal and Remediation Services
Whyalla	Metal Container Manufacturing
Whyalla	Water Transport Support Services
Whyalla	Oil and Gas Extraction
Whyalla	Other Mining Support Services
Whyalla	Basic Ferrous Metal Product Manufacturing

cot

Note

A comprehensive industry policy should be seen as an industrial strategy. The first step of such a strategy requires a formal identification of existing and future opportunities. Economic complexity provides a framework for identifying opportunities based on current industrial capabilities. These opportunities lead to increases in economic complexity, which means more capabilities, skills, and knowledge, and economic growth. This creates a self-reinforcing cycle where an industry policy embedded with economic complexity generates opportunities which build complexity which create more opportunities.

6.1 Diversification Analysis and Opportunity Identification

Diversification analysis is the first and most basic method available. It looks at the existing capabilities in a region, and identifies what related activities can be prioritised to best make use of these capabilities. For example, consider the economic complexity of a region like Whyalla. Table 6.1 shows the top ten industries in which Whyalla has an employment capability.

Economic complexity analysis reveals how "close" other activities are to the existing set of capabilities, through a measure called *density*. Figure 6.1 shows the relationship between proximity to unexplored manufacturing activities, and the benefit to Whyalla's complexity from pursuing them.

The relationship between benefit and feasibility is negative - activities which are more beneficial will be more difficult to pursue. All diversification opportunities are shown below in

• Diversification analysis is the first and most basic method.

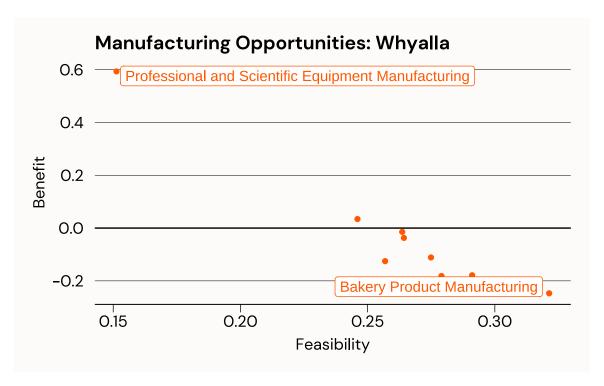


Figure 6.1: Economic benefit

Table 6.2: Diversification Opportunities for Whyalla

indp	count	rca	cog	der
Bakery Product Manufacturing	16	0.5469541	-0.24713749	0.3213
Other Food Product Manufacturing	4	0.4191929	-0.12531792	0.2568
Textile Product Manufacturing	4	0.9909592	0.03418554	0.2460
Other Wood Product Manufacturing	8	0.7245042	-0.11136617	0.2748
Cement, Lime, Plaster and Concrete Product Manufacturing	5	0.6040648	-0.18163767	0.2790
Other Fabricated Metal Product Manufacturing	6	0.8314774	-0.01447842	0.2635
Professional and Scientific Equipment Manufacturing	7	0.9552930	0.59366671	0.1512
Specialised Machinery and Equipment Manufacturing	4	0.6127312	-0.22163289	0.3103
Other Machinery and Equipment Manufacturing	4	0.7331176	-0.17877799	0.2910
Furniture Manufacturing	3	0.2115900	-0.03719024	0.2642

- Given a suite of existing capabilities, what related activities can be prioritised to best make use of the capabilities.
- Identify where those related activities can be performed.

6.2 Opportunity Identification

- Opportunity identification takes the diversification results and analyses:
 - current and future strengths and weaknesses within the sector
 - competitors and suppliers
 - anticipated international market conditions and industry demand characteristics
 - barriers to entry and minimum efficient scale issues
 - the size and economic significance of the opportunity
 - the most important elements of the value chain to capture
 - the alignment between the opportunities and strategic, regional, or national goals and priorities.

Part V Procurement

Part VI Future of Work

Note

Emerging industries will replace, or supplement existing industries. The net-zero transition necessitates the closure of some industries (coal and gas fired energy generation), and production changes for others (direct reduction of steel).

The way in which we work is changing. The manufacturing industry in particular faces disruption from two directions:

- decarbonisation and net zero requires energy and carbon intensive manufacturing processes
 to transition into using renewable generated electricity, such as in the aluminium industry,
 or a change in process to no longer require carbon as an input, such as in the iron and
 steel industry.
- the development, adoption, and diffusion of advanced manufacturing technologies, such as digitisation, robotics, automation into manufacturing processes changes the kind of work being done on the shop floor.

Understanding the impact that these disruptions have on occupations, skill requirements, and employment is important to:

- build organising capacity and capability in emerging sectors and;
- know whether our existing rules will be suitable to get coverage in emerging sectors, or if not, to get a head start in what rule changes are needed.

7 Emerging Sectors

The following sectors have been identified as target industries for further investigation

Part VII Emerging Industries

The following section outlines opportunities for emerging sectors to provide strong growth and deliver solid outcomes, especially identifying the use of tools such as multi-employer bargaining and precinct/place based work.

A short brief has been prepared for each identified industry - covering:

- is the industry in growth or decline?
- what and where are the growth opportunities?
- are there opportunities to use multi-employer bargaining, same job same pay or other tools?
- is there a link to Future Made in Australia?
- what else does your team think is worth considering?

The **industries** covered are:

- Steel/aluminium
- Wind tower construction
- Laboratories
- Aviation
- Roadside assist
- Defence
- Construction supply chains
- Mine servicing
- Food
- Iron bringing in foundries
- Rail

Part VIII Iron and Steel

8 Industry Overview

Steel manufacturing in Australia is captured primarily by the ANZSIC groups:

- Iron and Steel Forging
- Basic Ferrous Metal Manufacturing
- Basic Ferrous Metal Product Manufacturing
- Iron Smelting and Steel production is dominated by BlueScope Steel, who had almost 50% of the market share in 2025.

Overall, the iron and steel industries rely on demand in the residential construction, mining, vehicles, and infrastructure sectors to maintain revenue stability. All aspects of the industry are facing increasing pressures from low-cost imports, especially in the face of rising input costs in Australia. Additional uncertainty surrounding international trade policy clouds future investment decisions. Within the steel manufacturing and structural steel fabricating industries, pressures from automation and AI adoption have reduced wage costs and impacted the labour market. Future revenue growth in these sectors may rely on increased demand for green steel – indicating the importance for local manufacturers to invest in these production technologies now.

Both the iron and steel casting and forging industries have faced declining revenue over the last five years. Revenue has reduced at an annualized rate of 7.7%, primarily due to the continued impacts of the decline of the Australian motor vehicle manufacturing industry and increased import competition. In iron and steel forging, deteriorating conditions in mining output and railway equipment manufacturing has resulted in an annualised revenue decline of 2.4% through to 2024-25.

However, future growth is predicted as population growth increases pressure on existing infrastructure – increasing demand for multi-unit apartments, townhouses, and railway equipment. The completion of existing large infrastructure projects will dampen future sales without a strong pipeline of additional work. Finally, there is an opportunity through increased demand for wind farm construction to support the iron and steel forging industry.

what and where are the opportunities for growth?

Most steel production in Australia occurs at Port Kembla in New South Wales, operated by BlueScope and Whyalla in South Australia, operated by GFG Alliance Liberty Steel. The Whyalla steelworks was placed under administration by the South Australian government in February 2025. Both of these operations use blast furnaces to produce steel using iron ore and coal. This process produces significant amounts of carbon dioxide.

electric arc furnaces

Modern steel making techniques utilise electric arc furnaces as replacements for blast furnaces. These use significant amounts of electricity, but are more modern and more efficient. An electric arc furnace enables the production of low-carbon steel, including green steel. Electric arc furnaces can produce steel from any combination of recycled scrap steel and direct reduced iron.

The electric arc furnace in Collie WA is able to produce steel rebar with 80% fewer emissions - from recycled steel.

In-place upgrading of blast furnaces to electric arc furnaces probably requires closure of plants. In Wales at Tata Steel, the transition shut down production for about 2 years, resulting in about 2000 people losing their job.

In the UK, a plan to replace two blast furnaces at British Steel Scunthorpe is estimated to impact up to 2,000 steel workers.

These investments have cost over 1.25bn pounds each.

direct reduced / green iron

Making virgin steel using an electric arc furnace requires direct reduced iron. Direct reduced iron can be produced using natural gas/coal, or with hydrogen.

proximity of whyalla steel works and port kembla steel works to iron ore mines provides an opportunity to integrate direct reduced iron production into the process.

green iron production at geraldton???

process upgrade

this would require upgrading blast furnaces to electric arc furnaces, or new brownfield developments meaning significant capital investment would be required.

virgin steel production should be seen as a strategic national capability to maintain.

9.1 Legislation

There are more than 3,000 businesses operating in the iron and steel industries across Australia.

- Multi-employer bargaining
- Same Job Same Pay

9.2 Government Funding

The Future Made in Australia Innovation Fund, and the National Reconstruction Fund are the primary sources for government funding for the iron and steel industry.

support for domestic produced steel (green or grey) can be provided through government purchase contracts and procurement. Demand side interventions are possibly the only way to get this kind of production from the speculation stage to actually happening. Because capital investment won't come without a guaranteed buyer. A demand side policy might look like a significant infrastructure build/development using australian produced steel.

9.2.1 Future Made in Australia

• \$750 million to Green Metals including iron, steel, alumina and aluminium.

9.2.2 National Reconstruction Fund

- investment in commercial opportunities for manufacturing products related to components of wind turbines, batteries, solar panels, and hydrogen electrolysers
- investment in value-adding activities including refining materials for the use in the above.

• summary

Part IX **Aluminium**

10.1 Industry Overview

The aluminium industry in Australia comprises the entire supply chain from Aluminium ore through to manufactured aluminium products. This report specifically focuses on the production of alumina, and the smelting of alumina into aluminium. These two industries employ 6,853 and 3,245 employees respectively.1 Additional research into industries which further process aluminium, such as aluminium rolling, drawing and extruding, and architectural aluminium product manufacturing can be conducted on request.

This report is intended to provide guidance about current alumina production and aluminium smelting in Australia, including industry trends, and an overview of our current membership in this sector.

- The aluminium industry is nominally comprised of:
 - Aluminium Smelting
 - Alumina Production
 - Aluminium Rolling, Drawing and Extruding

The aluminium industry in Australia comprises the entire supply chain from Aluminium ore through to manufactured aluminium. These two industries employ 6,853 and 3,245 people respectively, products.

Financial analysis from IBISWorld indicates that the Alumina Production industry in Australia is worth \$6.7 billion, employing more than 6,800 employees, across only three businesses. Aluminium smelting is a less concentrated industry, worth \$6.8 billion, employing 3,245 employees across 57 businesses.

Financial analysis from IBISWorld indicates that the Alumina Production industry in Australia is worth \$6.7 billion, employing more than 6,800 employees, across only three businesses as shown in Figure 1. Aluminium smelting is a less concentrated industry, worth \$6.8 billion, employing 3,245 employees across 57 businesses.

Figure 1: Alumina Production in Australia 2

Figure: Aluminium Smelting in Australia 3

Major players

According to IBISWorld, there are only three companies which make up the alumina production industry in Australia, dominated by Alcoa and Rio Tinto, which comprise over 75% of the market as shown in Table 1. Rio Tinto is also a significant player in the aluminium smelting industry, taking over 40% of the market in 2024 as shown in Table 2.

Table 1: Alumina Production in Australia

Company	Market Share (%, 2024)	Revenue (\$m, 2024)
Alcoa of Australia	46.1	3,100
Rio Tinto	31.5	2,120
South32	22.4	1,510

Table 2: Aluminium Smelting in Australia

Company	$\begin{array}{c} \text{Market Share} \\ (\%,2024) \end{array}$	Revenue (\$m, 2024)	
Rio Tinto	40.6	2,756.7	
Alcoa of Australia	8.4	566.9	
Marubeni Aluminium	5.0	339.4	

Industry Trends

Australia is the world's largest producer of bauxite, and exporter of Alumina.4 Significant volatility in global prices due to Covid-19 and increasing cost pressures have impacted the output of the Alumina Production sector. Revenue declined by an annualised 8.5% through the end of 2023-24.5 Falling demand in aluminium smelting in Australia is attributable to 2.4% of this decline.

In contrast, production of aluminium is anticipated to increase over the next few years as global efforts are made to decarbonise the economy. In order to remain competitive, low carbon alumina production initiatives must be prioritised.

Aluminium smelting is the downstream process to Alumina production. Aluminium smelting is an energy intensive process which consumes upwards of 10% of the National Electricity Market. Increases in the production of green energy, leading to more competitive prices, has the potential to decarbonise the aluminium smelting industry. Despite Australia's dominance in alumina production, it is behind China in the production of aluminium. Inflated energy costs in Europe due to the Russia-Ukraine conflict, and uncertainty regarding carbon pricing policy in Australia contribute to volatility in global prices, and uncertainty in local production.

Table 3: Alumina Production and Aluminium Smelting Financial Trends 6

Sector	Revenue	5-year	Forecast	Profit
	(\$m,	Revenue	Revenue	Margin
	2023/24)	${\bf Growth}$	${f Growth}$	(\$m, 2024)
	• •	(%)	(%)	,
Alumina Production in Australia	6726.4	-5.62	0.18	7.0

Aluminium Smelting	6787.4	3.20	0.16	4.1
in Australia				

According to the Australian Aluminium Council the sector, in total (including all downstream processing):

- Directly employs 21,000 workers
- Indirectly supports over 60,000 families, mostly in regional communities
- \bullet Contributes \$18 billion annually to Australia's GDP, with \$14+ billion from alumina and aluminium

tomago, special finance vehicles

11.0.1 Government support

Green metals are a priority under the Future Made in Australia plan. The Government has announced a \$2 billion Green Aluminium Production Credit, available from 2028–29, to support Australia's aluminium smelters to transition to renewable electricity.

Smelters that can show new significant decarbonisation before 2036 can negotiate an
emissions-linked credit contract payable per tonne of green aluminium produced for up
to 10 years.

The Government has also committed \$1.5 million over 3 years to influence standards for green aluminium internationally, and to provide technical expertise and definitions for other green metals.

Multi-employer bargaining

The question of multi-employer bargaining and same job same pay are best answered by delegates and organisers. It may be difficult to undertake an approach with smaller businesses as consent is required if a workplace has fewer than 20 employees.

same job same pay

Same Job Same Pay applies only to labour hire - rather than two companies that are co-located. Some labour hire companies appear to offer employment in aluminium production. We would need to check our existing density and coverage of aluminium supply chain businesses.

Aluminium represents a significant opportunity for us to organize and build density. As a priority area under the FMIA and NRF, the government is likely to support industrial development in this sector. However, issues around rules coverage must be considered, especially if processes are being modernised to the point where our rules no longer cover the kinds of work being undertaken.

role for delegates and organisers

- summary
- any other issues

Part X Wind Tower Construction

13 Industry Overview

- is the industry in growth or decline?
 - employment
 - output
 - revenue

- what and where are the opportunities for growth?
- is there an opportunity to use multi-employer bargaining, same job same pay, or other tools?
- $\bullet\,$ is there an opportunity to use FMIA

- summary
- any other issues

Part XI Laboratories

16 Industry Overview

- is the industry in growth or decline?
 - employment
 - output
 - revenue

- what and where are the opportunities for growth?
- is there an opportunity to use multi-employer bargaining, same job same pay, or other tools?
- $\bullet\,$ is there an opportunity to use FMIA

- summary
- any other issues

Part XII

Aviation

19 Industry Overview

- is the industry in growth or decline?
 - employment
 - output
 - revenue

- what and where are the opportunities for growth?
- is there an opportunity to use multi-employer bargaining, same job same pay, or other tools?
- $\bullet\,$ is there an opportunity to use FMIA

- summary
- any other issues

Part XIII

Defence

23 Industry Overview

- defence includes aircraft and other armored vehicle manufacturing as well as repair and maintenance services for these equipment.
- is the industry in growth or decline?
 - employment
 - output
 - revenue

- this industry is supported through industry policy.
- AUKUS, shipbuilding, submarines. These are opportunities but face significant risks. One being the political situation in the US. We must strive for value-adding activities on shore. Not just purchasing built equipment.
- most of the opportunities for growth are probably in naval shipbuilding. but some repair and maintenance of equipment as well.

•

• what and where are the opportunities for growth?

multi-employer bargaining

- on one hand defence contractors are in competition and getting buy-in would be difficult. Excepting the big players like BAE/Thales etc, defence has significant scope for MEB
- is there an opportunity to use multi-employer bargaining, same job same pay, or other tools?
- is there an opportunity to use FMIA

- summary
- any other issues

Part XIV Roadside Assistance

26 Industry Overview

- is the industry in growth or decline?
 - employment
 - output
 - revenue

- what and where are the opportunities for growth?
- is there an opportunity to use multi-employer bargaining, same job same pay, or other tools?
- $\bullet\,$ is there an opportunity to use FMIA

- summary
- any other issues

Part XV Construction Supply Chains

Part XVI Mine Servicing

29 Industry Overview

- is the industry in growth or decline?
 - employment
 - output
 - revenue

30 Opportunities

- what and where are the opportunities for growth?
- is there an opportunity to use multi-employer bargaining, same job same pay, or other tools?
- $\bullet\,$ is there an opportunity to use FMIA

31 Conclusion

- summary
- any other issues

Part XVII

Food

32 Industry Overview

- $\bullet\,$ is the industry in growth or decline?
 - employment
 - output
 - revenue

33 Opportunities

- what and where are the opportunities for growth?
- is there an opportunity to use multi-employer bargaining, same job same pay, or other tools?
- $\bullet\,$ is there an opportunity to use FMIA

34 Conclusion

- summary
- any other issues

Part XVIII Rail

35 Industry Overview

- is the industry in growth or decline?
 - employment
 - output
 - revenue

36 Opportunities

- what and where are the opportunities for growth?
- is there an opportunity to use multi-employer bargaining, same job same pay, or other tools?
- $\bullet\,$ is there an opportunity to use FMIA

37 Conclusion

- summary
- any other issues

Part XIX Summary

In summary, ...

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