What is the inquiry about?

Manufacturing is a strong and diverse sector in Queensland

But the sector faces significant and ongoing pressures

Despite these pressures, many Queensland manufacturing firms are prosperous

The Queensland Government can support the manufacturing sector through broad-based policy reform

Ensure policies and regulation do not place further pressure on energy prices

Reform the state tax system

Facilitate access to a quality workforce

Remove impediments for participation in procurement

Make it easy for business to relocate to Queensland and do business here

Consolidate and improve the design of innovation programs

Assist workers to transition to new employment and remove barriers to labour mobility

The way forward

Draft recommendations

Seeking further views
Foreword

The manufacturing sector is a significant contributor to Queensland’s economy. It generates $20 billion in gross value added per year and employs 169,000 workers.

In September 2016, the Queensland Government asked the Queensland Productivity Commission to conduct an inquiry into manufacturing to identify policies to improve the sector’s productivity and competitiveness.

The inquiry is occurring in a dynamic environment, both within the manufacturing sector and the policy landscape. This includes Queensland Government 2017–18 Budget announcements on innovation (Advance Queensland), trade (Queensland Trade and Investment Strategy) and energy policy (Powering Queensland Plan).

This draft report sets out a policy action plan to support a strong and diverse manufacturing sector.

The Commission is seeking feedback on the analysis and recommendations, as well as further evidence on specific areas such as innovation in Queensland, management skills, red tape and ways to help older, lower-skilled workers adjust to changes.

The final report, submitted to the Queensland Government at the end of October 2017, will incorporate additional evidence provided by stakeholders, as well as more detailed analysis of recent developments and key policy areas.

I would like to thank all stakeholders that have contributed to the draft report, and look forward to the next phase of consultation.

Kim Wood
Principal Commissioner
The Treasurer has asked the Queensland Productivity Commission (the Commission) to undertake an inquiry into the manufacturing sector in Queensland.

This draft report has been released to provide an opportunity for consultation on the issues raised by this inquiry—and, in particular, on preliminary analysis, findings and recommendations.

The final report will be prepared after further consultation has been undertaken, and will be forwarded to the Queensland Government by the end of October 2017.

Make a submission

The Commission invites all interested parties to make written submissions on the draft report.

Submissions are due by close of business 6 September 2017. They can be lodged online or via post:


Manufacturing Inquiry

Queensland Productivity Commission
PO Box 12112
George St QLD 4003

Submissions will be treated as public documents and published on the Commission’s website. If your submission contains genuinely confidential information, please provide the confidential material in a clearly marked separate attachment.

Contacts

Enquiries regarding this project can be made by telephone (07) 3015 5111 or online at http://www.qpc.qld.gov.au/contact-us/

Key dates

Issues paper released 9 November 2016
Initial consultation late 2016 – February 2017
Further consultation July-September 2017
Submissions due 6 September 2017
Final Report submitted to the Government By 31 October 2017

The Queensland Productivity Commission is an independent statutory body that provides independent advice on complex economic and regulatory issues.

The Commission has an advisory role and operates independently from the Queensland Government—its views, findings and recommendations are based on its own analysis and judgments.

After undertaking a public inquiry, the Commission provides a written report to the Treasurer who must provide a written response within six months. Following this, the Commission publishes the Final Report.

Further information on the Commission and its functions can be obtained from the Commission’s website www.qpc.qld.gov.au
Manufacturing in Queensland

This overview summarises the key findings and recommendations from the draft report for the inquiry into the manufacturing sector. The Commission has found:

Despite declining as a share of economic activity, manufacturing is a strong and diverse sector in Queensland, thriving where it can leverage comparative advantages, exploit niche markets or quickly deliver bespoke products.

Ultimately, manufacturing firms and their workers will drive competitiveness and growth in the sector. The Queensland Government can better support the manufacturing sector through broad-based policy reform—address cost pressures, increase productivity and improve programs.

What is the inquiry about?

Queensland’s manufacturing sector is a significant source of employment and regional and economic activity within the state. Manufacturing links to:

- a wide range of domestic businesses as a supplier and purchaser of goods and services
- associated services such as applied research, engineering, industrial design, process improvement, logistics and client support
- communities as a key employer, particularly in some regional cities and towns
- export markets.

However, the sector’s share of Queensland economic activity has almost halved since 1989–90.

There has been much debate about the changing nature of Queensland’s manufacturing sector and its future prospects. One view is that strong international competition and rising business costs will see a further shift away from manufacturing in Queensland. Another is that greater access to global supply chains and markets, natural endowments and sophisticated service inputs provides rich opportunities.

Within this context, the Treasurer requested the Queensland Productivity Commission undertake an inquiry into the state’s manufacturing sector to identify policies to improve the productivity and competitiveness of the sector.
Manufacturing is a strong and diverse sector in Queensland

Manufacturing in 2015-16

$19.7 billion gross value added
6.7% Queensland economy
16,400 businesses
169,000 workers (sixth largest employer)

93.3% small business (<20 staff)
6.2% medium business (20-199 staff)
0.5% large business (200 or more staff)

Top three sectors:
- 28.6% Food
- 11.5% Metal
- 8.7% Petroleum and Coal

FIGURE 1: Manufacturing sales by industry subdivision, 2015-16 — Queensland
But the sector faces significant and ongoing pressures

Declining output—a state, national and global trend

Globally, between 1995 and 2014, manufacturing as a share of world gross domestic product fell 6.3 percentage points. Over the same period it fell 4.4 percentage points in Queensland.

Between 2007–08 and 2010–11, manufacturing output in Queensland contracted by about 20 per cent. Since then, output has remained relatively constant in real terms (Figure 2).

Strong domestic and international competition

Removing tariffs and other forms of protection on Australian manufactured goods has exposed the sector to greater international competition. While many Queensland manufacturers have benefited from more open markets, trade barriers still exist. Many countries levy tariffs on imported products and some foreign governments provide direct financial assistance to key industries.

High input costs

For manufacturers, input costs are the major determinant of production costs and product price. Many stakeholders expressed concerns about rising input costs, particularly energy and labour.

On average, between 2000–01 and 2015–16, electricity prices increased each year by 5 per cent, and gas prices by 2.7 per cent. As most firms are unable to diversify their energy source, this presents a significant commercial risk for energy-intensive manufacturers.

Recently, Rio Tinto’s Boyne Island aluminium smelter announced it would cut production and shed jobs in response to high electricity prices.

Similarly, statistics show growth in unit labour costs in Australia between 1998 and 2015 were the second highest of OECD countries.

Changing consumption trends and new production technologies

An ageing population, increased urbanisation and rising demand from Asia are driving changes in consumer demand. As the market for new products expands, the demand for more traditional manufactured goods has diminished. This may compel some domestic firms to reassess what they are producing and consider alternative opportunities.

In general, manufacturing has become increasingly fragmented, specialised and globalised. It has transformed from a vertically-integrated structure into one dominated by fragmented segments that are centrally coordinated. Modern manufacturing is characterised by global value chains comprising networks of businesses, workers and consumers.

Increasingly, emerging technologies are producing new products that are spurring a new industrial revolution around the world, changing production processes and business models. Advanced manufacturing and automating low-value production improves product quality, reduces the need for a large workforce and commensurately lowers labour costs.
Difficulties maintaining workforce size and quality

Manufacturers in Queensland reported difficulties in attracting and retaining staff, particularly in regional areas, as well as concerns about the quality of skills at all levels. Some manufacturing firms and workers indicated education and training did not leave workers ‘job-ready’—an issue that will be further compounded as new technology changes the nature of manufacturing jobs and forces workers to adapt and acquire new skills.

Despite these pressures, many Queensland manufacturing firms are prosperous

Aggregate industry data tend to mask the relative performance and prospects of subsectors and individual firms. For instance, several Queensland textiles, clothing and footwear firms are internationally competitive, despite significant rationalisation in their sector. Leading-edge technology, superior design or customisation, high levels of productivity and/or a focus on customer service are contributing factors.

Although there will continue to be some rationalisation and restructuring, those that have, or can, respond to challenges have a range of opportunities. In this context, manufacturers have developed strengths, including:

• targeting niche markets, producing unique or customised products
• responding to fast changes in preferences by shortening the lead time from factory to retailer and customer
• using innovation to drive quality and efficiency
• bundling manufactured goods with services such as maintenance, financing, distribution and insurance, to add value for the customer
• leveraging their proximity to key raw materials and other comparative advantages.

There are many Queensland manufacturers who have leveraged these strengths, among others, to develop their competitive advantage. Box 1 provides a very small sample of some of these firms.
Box 1: Manufacturers in Queensland

PACKER LEATHER

Established in 1891, Packer Leather is one of the few leather tanneries in Queensland. It is recognised worldwide for its locally sourced, high-performance kangaroo leathers, which provide superior strength and softness while being naturally thin. The fibre’s unique properties allowed the company to establish a market niche for itself in fit-for-purpose products, including footwear, garments and gloves. While competitors now also produce kangaroo skins, Packer Leather has maintained its market lead with a reputation for quality and innovation, based on its exclusive tanning technologies that complement the natural characteristics of the leather. New technologies have enabled the company to produce products with better moisture management, abrasion resistance, fire retardants and anti-microbial protection.

Packer Leather exports to 19 countries and supplies world leading shoe brands. Prior to shipment, it tests products in its in-house laboratory to ensure they are fit for purpose and meet relevant international specifications. The company is committed to protecting the environment by using a renewable natural resource and meeting rigorous environmental standards that are independently audited. It also uses solar power to reduce its energy consumption and recycles at least 40 per cent of the water used in production.

WATKINS STEEL

Watkins Steel is a family-owned steel manufacturer operating since 1968. It specialises in structural steel and metalwork fabrications, serving the manufacturing, mining and construction industries. The company employs 70 staff to undertake steel detailing, fabricating, drafting, 3D scanning and design estimating and installation services. It recognised a lack of accuracy was costly, both to itself (in the need to undertake reworks) and its customers (in downtime and lost production) and developed a unique end-to-end digital workflow for measurement, fabrication and installation.

By combining 3D technology with advanced robotics, it largely eliminated human error. Its four-step linked process involves:

- 3D laser scan of the site to ensure accurate measurements
- 2D shop drawings and 3D modelling
- automated and precise steel fabrication using robotics
- a station set out for on-site installation.

Many of Watkins Steel’s employees who were previously tradesmen, such as boilermakers, have now been trained to operate new technology. While the business remains a steel fabrication and installation company at its core, the value-added benefits afforded to customers have allowed the company to provide specialist design and 3D laser scanning services.
The Queensland Government can support the manufacturing sector through broad-based policy reform

Manufacturing businesses and workers have access to, or are impacted by, a broad set of Queensland Government policies and programs.

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<td><strong>Powering Queensland Plan</strong></td>
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<td>Cover cost of Solar Bonus Scheme</td>
<td>Return Swanbank E to service</td>
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<td>Investigate restructure of government owned gencos</td>
<td>Deliver the Powering North Queensland Plan</td>
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<td>50 per cent renewable energy target by 2030</td>
<td>Facilitate next wave of diversified renewable energy</td>
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<td>Improve large scale renewable project facilitation</td>
<td>Establish Queensland Energy Security Taskforce</td>
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<td>Implement Queensland Gas Action Plan</td>
<td>Seek integrated national climate and energy policies</td>
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The Queensland Government also provides significant assistance to manufacturers through tax concessions that are available to all Queensland businesses.
There is no magic bullet in terms of policy levers for the Queensland Government for several reasons.

- Many of the underlying issues are outside the influence of government.
- The Australian Government controls key policies and the underlying policy instruments.
- ‘Picking winners' has generally come at an overall cost to the community.

In particular, the goal of manufacturing policy should not be to promote a specific sector or firm as an end in itself. There is a long history of missteps and failures when governments have sought to do so at considerable cost to the economy, community and, in many cases, the manufacturing sector (Box 2).

### Box 2: Caution required—promoting winners, protecting losers or something else?

Governments often attempt to target specific industries or attract investment to increase employment and generate economic growth. However, empirical evidence and reported outcomes do not suggest any convincing link between governments targeting an industry and the performance of that industry.

History details many costly failures. For example, in Queensland in 2001:

- The Queensland and Australian governments offered assistance to the Australian Magnesium Corporation to establish the world’s largest magnesium smelter near Rockhampton. Both governments foresaw large and beneficial impacts for employment (of up to 7,000 jobs) and investment ($4.5 billion). However, the project was not viable and work ceased in June 2003, with the Australian Government required to fulfil its loan guarantee of $90 million, and the Queensland Government losing $70 million to the project.

- The Queensland Government provided incentives to Berri Fruit Juice to relocate some of its manufacturing operations to Queensland. The company had previously received similar incentives from the South Australian Government to locate some operations there. Berri closed its manufacturing operations in South Australia in 2010 and its Queensland plant in 2014, transferring production to New South Wales.

At the national level, the Australian Government supported the Australian automobile manufacturing industry for more than a century. About $30 billion (2011-12 dollars) in net combined assistance provided to the industry between 1997 and 2012 failed to produce a sustainable manufacturing plant.

Internationally:

- In the late 1950s, the Japanese Government decided to subsidise petroleum and petrochemicals industries while at the same time hindering Sony’s transistor technology venture because it was ‘unpromising'.

- In the United States, the Obama administration had several high-profile failures from funding alternative energy companies, with total losses as of November 2014 estimated at US$2.2 billion.

- Many countries have tried to establish a semiconductor sector as a key industry. The McKinsey Global Institute identified countries that have attempted but failed to create a sustainable industry since the 1980s. These include Singapore (US$5–16 billion in subsidies), China (US$6–17 billion), Japan (US$19–54 billion), Germany (US$2–7 billion) and Malaysia (US$1–3 billion).

Government measures to facilitate a competitive industry are best directed at providing a favourable business environment. This means minimising impediments to efficiency and competitiveness, and ensuring government programs and procurement are effective. The manufacturing action plan sets out a broad-based program for reform.
Manufacturing: Policy Action Plan

Where are we now?
Manufacturing in Queensland generates around $20 billion a year in gross value added for the Queensland economy. It employs 169,000 workers in 16,400 businesses. Manufacturers face pressure from high input costs, strong competition and regulatory complexity.

Government policies and programs for manufacturing are fragmented and dispersed. The sector is generally unaware of government policies and what they aim to achieve. There is limited information available to evaluate program effectiveness or value for money.

What’s the aim?
A competitive and productive manufacturing sector will best support economic growth and improve long term living standards in Queensland. Government action needs to effectively and efficiently:

- target market and government failures
- simplify and consolidate programs
- focus on performance and results.

How to get there?
The Queensland Government can best achieve its objectives through three key actions:

1. **Address cost pressures**
   - avoid further pressure on energy prices by ensuring energy policy and regulation are efficient (Recommendation 2)
   - create a competitive business environment through a more efficient tax system (Recommendation 3)
   - reduce costs on business and improve regulatory outcomes by reducing red tape through stocktake review (Recommendation 7).

2. **Increase productivity**
   - lift the pool of workers with the right skills by revising the funding and structure of VET to provide the right incentives to providers, students and businesses (Recommendation 5)
   - expand competition for government procurement and improve value for money by simplifying the process (Recommendation 4)
   - support manufacturers, regions and workers, by improving adjustment assistance and removing barriers to labour mobility to assist workers to transition to new jobs (Recommendation 10).

3. **Improve government programs**
   - increase effectiveness and reduce administration costs by consolidating and simplifying innovation programs (Recommendation 9)
   - make it easier for businesses to locate and do business here by fixing investment facilitation to streamline government processes and offer comprehensive information to all businesses (Recommendation 6)
   - avoid providing attraction incentives to individual firms, but if provided, transparently report the costs and benefits ( Recommendation 8)
   - deliberately track, manage and measure the performance of programs (Recommendation 1).

An action plan built on broad-based policy reform will:

- address the main concerns of the manufacturing sector
- avoid perverse outcomes associated with manufacturing-specific policies
- establish a clear policy with fewer programs that achieve more
- provide the greatest opportunity for manufacturing—and all Queensland businesses—to compete and grow.
**Ensure policies and regulation do not place further pressure on energy prices**

Energy markets are the focus of considerable policy attention, with a number of national reviews under way in addition to state-based studies. The Commission also completed an inquiry on electricity prices in 2016.

The challenge is to avoid policy or regulatory changes that will place further pressure on energy prices. The temptation to seek regulatory ‘fixes’ should be resisted. Such responses can distort or discourage commercial investment, leading to higher energy prices in the long term.

In the case of natural gas, LNG exports from Queensland are transforming Australia into the world’s second largest gas exporter and the major gas supplier for east Asian markets. Local consumers are experiencing cost pressures as gas prices rise towards export parity. The Australian Energy Market Operator (AEMO) forecasts the delivered wholesale price of gas in Australia will increase by 48 per cent by 2036, with step changes in 2018 and 2023 as significant contracts expire.

Rising gas prices and uncertainty about future prices and availability can especially affect heavy users of natural gas that are trade-exposed and cannot switch to alternative energy sources. Queensland manufacturing—with its significant metal, mineral, energy and chemical sub-sectors—is particularly exposed. AEMO projects that, by 2021, gas consumed by large industrial users in Queensland will fall by 24.9 per cent (27.3 petajoules).

Some argue for gas to be reserved for local users so they can access gas while being sheltered to some extent from higher prices. However, evidence shows reservation policies are ineffective and impose costs.

The most efficient solution to meet supply objectives of price, quality, reliability and security is likely to involve a combination of options. An approach that reduces regulatory impediments to supply will be challenging to deliver but is more likely to be effective in the long term. The Queensland Government has indicated it intends to release its gas action plan in mid-2017. This plan should remove barriers to supply by:

- paring back costs and removing impediments to gas exploration
- setting out a pathway to resolve land-use conflicts arising from gas activities (including through education and planning)
- increasing transparency to improve market efficiency.

**Reform the state tax system**

Queensland (like other states) relies on payroll tax, land tax on the unimproved value of land, transfer duties, insurance taxes and gambling duties. Payroll tax (28.7 per cent of total tax revenue in 2017-18) is the largest source of state taxation revenue, followed by transfer duty (24.0 per cent), motor vehicle registration fees (13.1 per cent), other duties (11.2 per cent), land tax (9.0 per cent) and gambling taxes and levies (8.9 per cent).

Competition between states has focused on taxation thresholds and exemptions as well as on tax levels. This has contributed to complex tax structures and concessions that, unless carefully designed, can create distortions as people change their decisions to take advantage of concessions. Concessions also reduced revenue by an estimated almost $5.3 billion in 2016-17. Compliance costs, which are proportionately higher for small businesses, increase as tax systems become more complicated.

While there is limited evidence about the specific impacts of state taxes on manufacturing, there is consensus that state tax systems can be substantially improved. Recent reviews provide a strong foundation for additional reform but this has not happened.

Land tax has lower efficiency costs than other taxes, because if properly designed it has little impact on people’s decisions about working, saving or investing. In theory, payroll tax has low efficiency costs compared with other taxes but in practice the costs are higher because tax-free thresholds and other exemptions reduce the tax base.

There is a strong economic argument for Queensland to generate more revenue from land tax and, potentially, from payroll tax, as well as abolishing or reducing more distorting taxes. Land and payroll tax rates could be set at lower levels by reducing or removing the exemptions and concessions that currently apply.
Facilitate access to a quality workforce

A diverse range of disciplines and levels of skill are required for Queensland manufacturers to succeed. Skilled workers strengthen the ability of manufacturers to innovate and grow—and a lack of skilled workers can constrain growth.

Some stakeholders have had difficulties finding (or replacing) and retaining skilled staff, particularly in regional areas or niche markets. Concerns include:

- workers are being deterred from the manufacturing sector by the view that it has no future.
- there are existing gaps in the workplace skills of the manufacturing workforce, including:
  - ongoing concerns with the level of basic skills (literacy, numeracy, problem solving)
  - differences in the capability and capacity of workers ‘beyond the production line’
- an apparent disconnect between government, training providers and industry needs, particularly in relation to ‘job readiness’ as well as in identifying and providing for future skills needs.

New and emerging technologies are also placing new demands on workers and businesses, changing the tasks and activities undertaken and associated skill sets required.

Many of these issues are not unique to manufacturing. They reflect the challenges facing the Queensland economy as it shifts to more knowledge-intensive industries.

In practice, addressing these issues is a shared task. Workers and firms (and their associations) have a direct interest in addressing skills needs to improve their prospects and the performance of their business and industry. Government shapes the broader institutional framework and the regulatory and policy environment.

Vocational Education and Training (VET) in Queensland is part of a national system. The Queensland Government provides funding towards the cost of training under its Annual VET Investment Plan and provides annual grants to public training providers (such as TAFE Queensland).

A high-quality education and training system should deliver workers with relevant, adaptable skills in a cost-effective and efficient manner. To support this outcome, the Queensland Government and Jobs Queensland should, as part of ongoing broader reforms, restructure the VET system by improving incentives, optimising funding and minimising the level of compliance costs on business.

Remove impediments for participation in procurement

Queensland Government departments spent more than $17 billion in 2016-17 on procuring supplies and services. The Commission has not found data on how much was spent on locally manufactured goods, but about 70 per cent of government expenditure is with local suppliers.

Some Queensland manufacturers are concerned procurement arrangements do not provide a level playing field for them to compete with interstate or overseas businesses. Small firms can be intimidated by complex or prescriptive tendering processes or have difficulty participating when government tenders aggregate procurement to create purchasing economies. Some stakeholders consider local suppliers should be given preferential treatment over those from interstate or overseas.

The Queensland Procurement Policy (QPP) focuses on value for money while requiring agencies to ‘ensure that competitive local suppliers are afforded a full, fair and reasonable opportunity to supply government’.

The Charter for Local Content (the Charter) operates within the framework provided by the QPP, with a focus on maximising local content. This implies the policy intent is to treat local suppliers preferentially even though local procurement is not mandatory. The Charter does not define local content or explain how to measure it.

The government provides or supports services that help local businesses to participate in procurement processes. For example, Industry Capability Network Queensland (ICNQ), a not-for-profit organisation supported by the Queensland Government, offers services to help link project proponents with capable local suppliers. There is a sound rationale for such services, as enabling local firms to participate in procurement processes can improve value for money by increasing the number of potential suppliers.

The rationale for preferential procurement of local content is less persuasive as it may lead to the rejection of supply offers with the best quality-price
combination, consequently increasing costs to Queensland taxpayers. Moreover, procurement agencies are unlikely to have the sophisticated skills and information required to achieve the multiple objectives put forward by proponents of preferential procurement.

Submissions and various reviews have identified agencies can improve procurement processes in ways that improve value-for-money procurement while enabling local content. These include:

- simplify the tendering requirements, including the structure, breadth, scale and complexity of contracts
- provide clear advice to tenderers on the definition and methodology that will be used in applying the value for money principle
- improve the capability of the public service to review and assess tenders, including providing ongoing expert assistance to purchasing officers in applying the value for money principle
- to the extent possible, specify contracts in terms of the desired outcomes rather than how an outcome is to be achieved (input controls), as this will provide tenderers with greater flexibility
- publish a pipeline of supply opportunities.

Make it easy for business to relocate to Queensland and do business here

Many factors influence business location decisions. Often, firms are mobile because important factors of production (such as raw materials or skilled labour) are available in many places. Governments compete for mobile investment through:

- investment facilitation, which can involve:
  - providing information about legislative and regulatory requirements
  - assisting with site identification
  - identifying infrastructure and utility needs
  - coordinating and brokering development approval processes
  - assisting with business development programs
  - introductions to industry networks
- investment assistance, through financial incentives that increase the return on investment in a specific location.

Box 3: Reshoring

Reshoring of manufacturing involves transferring an activity, commonly a production process, from an overseas location back to a country of origin.

Around the world, there has been a growing interest in reshoring as a corporate strategy and public policy objective, along with some high-profile cases of firms reshoring to the United States and United Kingdom. However, the quantitative evidence on the extent and opportunities for reshoring overall is mixed. The employment gains from foreign direct investment in the United States have been steadily outstripping the number of jobs created by reshored production for some time.

Few firms have returned production to Queensland. It is likely the factors driving reshoring elsewhere—low energy costs, closer proximity to large domestic markets—are less relevant for Queensland manufacturers.

There is a lack of publicly available information on the effectiveness of government reshoring policies, both in terms of the direct benefits (such as the number of companies that repatriated production and the number of jobs created) and the cost of those policies. Reshore UK, Britain’s high-profile government initiative to resshore manufacturing production, closed in 2016.

On balance, the evidence suggests reshoring will occur if it is in the financial interest of the manufacturer. The primary role for government is to ensure firms have accurate and accessible information to make location decisions.
Trade and Investment Queensland (TIQ) and the Department of State Development (DSD) both provide facilitation services. The Commission has not found a clear statement of the outcomes that investment facilitation is intended to achieve, and there is limited convincing evidence about its impacts and if current government expenditure on investment facilitation is effective. As services are provided without charge, some users may value them less than it costs taxpayers to provide them.

Reorganising facilitation activities towards addressing information barriers for all firms, rather than selected firms, is likely to produce greater benefits. In addition, gathering and publishing information about which government processes are most challenging for investors could identify opportunities for the government to simplify regulatory processes without undermining outcomes. This would help to address the information barriers to firms locating in Queensland. It would also reduce and streamline regulation so there is a less complex and lower-cost system for potential investors to navigate.

Evidence suggests financial incentives to attract investment are unlikely to provide a net benefit to the Queensland community. However, if the government decides to provide a financial incentive, then these factors should be publicly reported:

- the criteria for allocating grants
- the number, names and size of firms assisted
- the value of assistance provided
- expected outcomes and an evaluation against those outcomes.

Consolidate and improve the design of innovation programs

Many government policies and programs across all levels of government affect manufacturers. These include broad framework policies (such as taxation and employment relations) as well as targeted policies such as grants and subsidies, industry facilitation, and support programs to bolster research, increase collaboration and accelerate commercialisation.

In Queensland, manufacturers can access programs that support small business (Advancing Small Business Queensland Strategy), encourage innovation (Advance Queensland), improve education and training outcomes (Advancing Education and Annual VET Investment Plan) and support employment and regional growth (Jobs and Regional Growth Package).

Specific to manufacturing, the Queensland Government recently announced three key initiatives:

- Various 10-year roadmaps and action plans are being developed. Biofutures and Advanced manufacturing are under way, and plans for aerospace, biomedical and life sciences, defence and mining equipment, and technology and services will be developed.
- An Industry and Manufacturing Advisory Group will help to develop and implement the 10-year plans.
- The Made in Queensland program ($20 million) provides funding to improve business capabilities and adopt innovative processes and technologies.

Although it is too early to assess if the new Queensland Government programs will be effective, good program design principles and feedback from stakeholders suggest some improvements can be made.

There is a case for consolidating existing programs and improving their design.

Large numbers of small programs tend to have high administration costs. For example, the Queensland Competition Authority previously found that while the cost of administering industry assistance measures averaged around 10 per cent, this cost for some programs was 50 per cent. That means for every dollar of assistance, a dollar is spent administering the program. For a small number of programs, the cost of establishing and administering the program was higher than the amount of assistance provided.
Although there is a sound basis for some programs, such as the positive spillovers generated by research and development (R&D), there is limited evidence to support others. Few have specific or measurable objectives for the community to judge their success.

Many manufacturing firms participating in this inquiry indicated they tend to avoid government programs based on a view the programs would not be useful, or the costs of navigating, applying and complying with the program were too high compared with the expected benefits. Some firms were either not aware of the available programs or found it too difficult to find the program that suited their needs. For example, there are more than 25 Queensland Government innovation and entrepreneurial programs.

Given the alternative uses for program funding, especially with tight fiscal conditions, it is imperative that government initiatives achieve what they are designed for. If program beneficiaries find the landscape too complex to access, and agencies are unable to transparently and easily demonstrate performance, there is a question as to whether the programs should continue to be pursued.

Instead, the government may consider:

• simplifying and consolidating the support it offers to focus on fewer, well-designed programs
• clearly promoting the support available, and what it will achieve
• measuring and managing performance.

Fewer programs—based on robust design that focuses on outcomes, measures benefits and accompanied by transparent evaluation to demonstrate ‘what works’—are more likely to:

• establish a clear government plan for industry understood by firms, workers and the community
• make it easier for manufacturing firms to access and participate, increasing the chance that the best firms can access programs, rather than those with the time and resources to navigate the system
• better achieve the government’s objectives and demonstrate success (or if not, how to improve programs or identify if resources would be better deployed elsewhere).

Assist workers to transition to new employment and remove barriers to labour mobility

Structural change has been a prominent feature of Australia’s manufacturing industry after tariffs were removed on manufacturing imports in the 1980s and 1990s. While structural change ultimately results in a better use of the community’s scarce resources, it can result in significant financial and social costs for workers, firms and communities as the economy transitions from industries in decline.

Queensland’s manufacturing sector is smaller and more diverse than in other states. Given this diversity, and a relative absence of sectors that were previously supported by high trade barriers, Queensland’s manufacturing sector has been less exposed to many of the structural shocks that have beset manufacturers elsewhere.

It is difficult to identify with certainty the Queensland industries or regions more likely to be affected by structural change and when problems may emerge. In the short term, those with the greatest exposure to risk would appear to be:

• energy-intensive industries where higher energy prices are continuing to erode their financial position and, ultimately, commercial sustainability
• communities or regions that rely heavily on a major business as a primary source of employment.

Over a longer-term horizon, technology, such as advanced manufacturing, will affect established firms in terms of the level of capital investment, the manner in which they produce, the amount of labour they employ, and their ability to compete with domestic and international rivals. It will also have an impact on workers in affected firms.

Between 2000 and 2012, governments around Australia spent more than $88 billion on structural adjustment programs. There are few publicly available reviews of how effective past adjustment assistance has been. However, analysis suggests the programs tended to have a high cost per job, insignificantly affected overall long-term regional employment trends, and did not enhance regional performance relative to other regions that lose a major employer but did not receive assistance.
As a result, although adjustment assistance has the potential to play a role in facilitating change and easing the adverse transitional impacts of adjustment, it needs to be justified, well-targeted and effective.

Where government adjustment assistance is warranted, these actions will likely have benefits:

- directly target workers who face significant barriers to re-employment, such as older manufacturing workers with low or non-transferable skills
- before planned closures, extend non-financial assistance measures to affected workers to make them ‘job-ready’ and smooth the transition to alternative employment
- establish a longitudinal study of retrenched workers who received assistance to determine which programs best led to permanent reemployment.

Geographic labour mobility is an important mechanism in adapting to labour market shocks associated with structural change.

Labour mobility improves community wellbeing by enabling workers to move to locations where they are more productive and highly valued. This can increase employment and incomes across the state. However, regional labour markets are adversely affected when mobility is low. Unemployment is likely to be high and there could be greater inequality in income and social conditions.

The Queensland Government should remove state-based barriers to geographic labour mobility, including:

- improve land-use planning processes to expedite the release of land for residential development that would otherwise limit the supply of housing
- remove unnecessary occupational and/or business licensing and ensure the remaining regulation is the minimum necessary to achieve consumer protection, safety or environment objectives
- reform stamp duty to reduce the additional costs on property transfers.
The way forward

The key finding emerging from this inquiry is that manufacturing firms and their workers will drive competitiveness and growth in the sector. The Queensland Government can best support this outcome by reforming the business policy environment. The Commission has set out a draft action plan—to address cost pressures, increase productivity and improve government programs—to facilitate feedback from all stakeholders and to prepare a final report for government.
Draft recommendations

1. The Queensland Government should adopt an action plan for the manufacturing sector, centred on broad-based policy reform rather than on firm- or manufacturing-specific assistance. The plan should address three key action areas:
   - address cost pressures
   - increase productivity
   - improve government programs.

Policies and programs underpinning the plan should be designed and managed for performance: target market and government failures; avoid funding activity that will occur anyway; minimise compliance costs for industry and government; establish accountability, and properly measure, review and publicly report outcomes.

Draft Recommendations 2–10 set out the detailed policy reforms to support the action plan.

2. The Queensland Government should ensure that its energy policies and regulation promote the long-term interest of consumers and efficient energy prices. This includes:
   - avoiding policy or regulatory changes that impede the efficiency of the electricity market and place further pressure on energy prices
   - structuring the Queensland Government’s gas action plan (due for release mid-2017) to remove supply barriers by:
     - reducing the costs and impediments to gas exploration and development through, for example, measures to improve land release and tenure management, and cooperation between different mineral and energy regulators
     - improving processes to resolve land-use conflicts arising from gas activities (including through providing better information to landholders and an evidence-based approach to regulation)
     - increasing transparency to improve market efficiency, through measures such as reporting sector-wide performance and regulatory compliance.

3. The Queensland Government should reform the state tax system by removing or reducing distortionary taxes (such as stamp duties and insurance levies) and moving towards less distortionary taxes (such as broad-based land and payroll taxes).

4. In developing the new procurement model, the Queensland Government should:
   - establish a single procurement policy based on a single objective—value for money
   - remove impediments to local firms participating in procurement, including by:
     - simplifying tendering requirements including the structure, breadth, scale and complexity of procurement contracts
     - improving the capability of the public service to review and assess tenders
     - providing clear advice to tenderers on the definition and method that will be used to apply the value for money principle
     - to the extent possible, specifying contracts in terms of the desired outcomes rather than inputs
     - publishing a pipeline of supply opportunities.

5. As part of ongoing broader reforms to the education and training sector, the Queensland Government and Jobs Queensland should:
   - reform the Vocational Education and Training (VET) system to:
     - adapt and respond to provide for thin and emerging markets
     - reduce unnecessary compliance costs on businesses and students
     - encourage the right level of training for the right people, both within VET and across tertiary education
   - establish the right incentives for providers—including TAFE, other agencies and private sector providers
• develop a funding model by determining:
  – an efficient price for each qualification
  – the optimal balance between public and private contributions.

6 The Queensland Government should reorganise the investment facilitation activities of Trade and Investment Queensland and the Department of State Development to:
• address the information barriers to firms locating in Queensland
• identify opportunities to reduce/streamline regulation—so there are fewer government requirements to navigate, at a lower cost.

7 The Queensland Government should commission an independent stocktake of the regulations that affect key subsectors of the manufacturing industry and complete it as soon as possible.

The stocktake should identify priority areas for reform that will contribute to improved productivity for Queensland manufacturers as well as the wider Queensland economy. This includes areas where there is the most scope to:
• reduce unnecessary regulatory burden and pursue regulatory objectives in more efficient (least cost) ways
• better coordinate action across (Australian, state, local) governments to reduce unnecessary overlaps.

8 The Queensland Government should avoid providing investment attraction incentives to individual firms unless it can be demonstrated that there are likely spillovers that would otherwise not occur. If the government does provide incentives it should:
• publish the criteria for allocating grants to attract mobile investors
• provide assistance in transparent forms, rather than through less transparent forms such as tax concessions
• link grants to measurable deliverables
• publish the number, names and size of firms assisted; the value of assistance provided to each firm; and the details of contracts with individual firms
• report annually the expected outcomes and performance milestones agreed in the case of each grant and the performance of each project against these milestones.

9 The Queensland Government should consolidate its more than 25 innovation and entrepreneurial programs to target three key areas—increase beneficial knowledge spillovers; improve information access; and address coordination problems.

For each remaining program, the government should:
• establish measurable objectives aimed at inducing additional activity
• measure and monitor the program for performance from commencement
• evaluate programs within three years and publicly report the outcomes, including administration costs and if the program achieved its objectives (effectiveness) and the benefits exceeded the costs (efficiency).

10 The Queensland Government should:
• where appropriate, provide early training assistance where there are planned firm closures
• remove barriers to labour mobility across regions in Queensland, particularly in relation to housing, occupational/business licensing and stamp duty
• go beyond retraining programs and adopt practical alternatives for older, low-skilled manufacturing workers who are displaced.
Seeking further views

The Commission is seeking feedback on the findings and recommendations outlined in the draft report. It is also seeking further specific input on management capabilities, innovation, regulation and structural adjustment.

Management capabilities
Management capabilities in Australian manufacturing appear to be below global leaders. The Commission is seeking further views about the role of management training and education in manufacturing businesses.

What stops businesses and workers from investing in management education and training? Are the current programs delivered by TAFE Queensland, universities and private providers sufficiently available to, designed for and targeted at Queensland manufacturers and are there any gaps?

If there is a role for improved management training and education, what capabilities should be focused on and what format should courses be presented in, to ensure they meet users’ needs? If there is a role for improved management training and education, who would be best placed to deliver it to Queensland manufacturing businesses?

Innovation and commercialisation
The Commission is seeking further information on innovation.

Are there state-based impediments to businesses and universities collaborating to commercialise R&D that could be reformed or removed? Do current Queensland and Australian government policies effectively target barriers?

Are there specific ways that the government can facilitate networks, hubs and clustering? Are there any state-based impediments to businesses forming effective networks and clustering? Are there any other state-based barriers to innovation?

Regulation
The Commission is seeking stakeholders’ evidence and views to identify regulations that could be reformed and which subsectors could be given priority in undertaking a stocktake of the regulations, having regard to the greatest potential opportunity for gains.

Which regulations are unnecessarily burdensome, complex, redundant or of questionable benefit? Where will reform provide the greatest benefits (for manufacturers or the broader community)?

Structural adjustment
The Commission is seeking further views on potential measures for displaced older, low-skilled manufacturing workers.

Are there alternative options to retraining programs for older, low-skilled manufacturing workers? Are there examples where such programs have been successful? For some groups of workers, is there a case to shift beyond retraining and redeployment objectives to transition to other forms of work or retirement?