MADE IN VICTORIA 2030

Manufacturing Statement
Driving jobs and growth

VICTORIA
State Government

Minister's foreword

Victoria has a proud history of leading from the front when it comes to advanced manufacturing.

Our $31 billion industry is a cornerstone of the state's economy and a catalyst for growth, innovation and prosperity.

Victoria is home to more than 23,000 manufacturing firms, employs more than 260,000 people and provides 30 per cent of the nation's manufacturing output.

Building on a long tradition in automotive, aerospace, defence, metal, food, medtech, chemical and general manufacturing, Victoria continues to be the destination of choice for leading businesses.

Manufacturing around the world is moving beyond traditional low-value production and becoming increasingly technology driven, requiring highly skilled workers and a competitive edge in new techniques.

This evolution is creating new opportunities for Victorian companies to show ingenuity, use advanced technologies, expand their research and development, and create new partnerships and international connections.

That's why the *Made in Victoria 2030: Manufacturing Statement* is so important. It underlines our vision and plans for Victoria's manufacturing future and highlights our strengths, opportunities and priorities.

The Victorian Government will support this evolution to reflect the needs of 2022 and beyond. We will ensure Victoria remains a place for advanced manufacturers to expand and thrive in key sectors including zero and low emissions manufacturing, renewable energy, transport, defence and space, health technologies, digital and advanced technologies and food manufacturing.

Victoria is well equipped to take advantage of these new opportunities thanks to our highly skilled workforce, globally connected supply chains, engineering expertise, leading education, world-class innovation precincts and research and development capability.

We will continue to accelerate the transformation of our advanced manufacturing capabilities, paving the way for smarter and more sustainable ways of doing things.

This is crucial for our continued economic recovery and growth. It will unlock new opportunities to increase jobs, productivity and investment in our state, and build a thriving and diverse workforce.

As a result of what we have already achieved, global companies like Moderna, CSL and Hanwha Defense Australia are choosing to invest in Victoria.

We strive for excellence – attracting and training the best talent, finding innovation and improvements and removing barriers to productivity.

We will support the adoption of new technology, invest in renewable energy and zero emissions manufacturing, strengthen local supply chains, create thriving manufacturing hubs and precincts, and boost exports.

This will see us create the kinds of highly skilled, sustainable, full-time jobs we need to secure our future prosperity.

I look forward to working with Victoria's diverse and dynamic manufacturing industry to realise this vision and position Victoria as a global manufacturing hub.

The Hon. Ben Carroll MP

Introduction:
For advanced manufacturing in Victoria, the future is now

Manufacturing in Victoria today is flexible, digital, internationally connected and strongly grounded in the state's strengths in research and innovation.

Both nationally and globally, Victoria is a leader in advanced manufacturing.

In factories, design studios and manufacturing precincts across the state, our manufacturers are pioneering new products and taking them to the world.

Victoria knows how to build vibrant, home-grown manufacturers and how to attract leading multinationals and their supply chains to locate here as a foundation for their, and our, success.

Such international companies, all with a strong presence here, include Moderna, Boeing, Alstom, Mars Global and Hanwha.

Through applied innovations and cutting-edge manufacturing technologies, these businesses are using Victorian capability and know-how to succeed on the world stage.

Manufacturing technologies are constantly changing and manufacturers in Victoria need to continuously adapt to maintain their competitive edge.

The urgent need to decarbonise the global economy is also prompting a major transformation in how manufacturing businesses operate.

In addition, external shocks such as the COVID-19 pandemic and geopolitical tensions have highlighted the need for stronger sovereign manufacturing and more resilient supply chains.

Global change in manufacturing and the reorientation of supply chains present significant opportunities for Victoria.

As the world moves into a new era defined by localised, zero emissions, more advanced manufacturing, Victoria can lead the way.

We will do this by building on our existing strengths, as well as by investing in new technologies, skills, products and production methods.

The Victorian Government is committed to supporting local manufacturers to succeed and to create highly skilled, high-value jobs that deliver greater prosperity for Victorians.

Made in Victoria 2030: Manufacturing Statement sets out the Victorian Government's priorities for enhancing sovereign advanced manufacturing, attracting and stimulating investment, increasing productivity, and creating new jobs for Victoria.

The pandemic underscored the importance of being able to produce certain types of essential products and inputs, and to maintain certain key capabilities, within Australia.

Victoria's key strategic advantages

- **A world leader in research and development (R&D)** with the Australian Synchrotron, the Australian Nanofabrication Facility, Data 61, STELaRLab and the Oceania Cyber Security Centre
- **10 universities ranked among the best in the world**
- **30 per cent of Australia's STEM graduates**
- **Home to world-class research institutions and precincts** that focus on, or leverage, new technologies and advanced manufacturing capabilities. Leading examples include Monash Clayton, Fishermans Bend, La Trobe, Werribee and Parkville
- **Melbourne Airport is Australia's busiest 24/7 curfew-free airport**
- **The Port of Melbourne is the largest container port in Australia**
- **Committed to improving the cost and ease of doing business** $75 million regulatory reform program and $10 million Business Acceleration Fund will deliver cost savings for businesses
- **Melbourne was rated Australia's most liveable city and 10th globally in 2022 by the Economist Intelligence Unit**
- **Largest manufacturing workforce of any state or territory**
- **Deepest and most diverse supply chains of any state or territory**

What is advanced manufacturing?

Manufacturing today is more technology-intensive, more skills-intensive, more agile and more innovative.

Over the past two decades, manufacturing has undergone a worldwide shift from conventional, process-intensive production to a much higher reliance on advanced technologies and more highly skilled workers. This shift is the essence of advanced manufacturing.

As a result of this change, the sophisticated use of new technologies, skills and business models is adding greater value to traditional manufacturing, and changing the fundamental economics of manufacturing.

With new design and fabrication technologies, for example, it is possible to manufacture products much more flexibly and at a lower scale while still operating efficiently. Scale and standardisation have become much less important than the smart use of digital technologies in design, production and distribution.

Advanced manufacturing also plays a critical role in a circular economy by making manufacturing more efficient, increasing local production and reducing waste.

Manufacturers across the economy that deftly apply advanced technologies can better meet market demands and the expectations of their customers. This is occurring in a range of sectors, including steel fabrication, textiles, clothing and footwear, low and zero emissions technologies, life sciences, and medical personal protective equipment (PPE).

These forces are changing the geography of manufacturing at a time when governments are looking to onshore essential capabilities, and large manufacturers are looking to diversify their production and supply chains.

Case study

mRNA Victoria

Through mRNA Victoria, the Victorian Government is building on the state's comparative advantages in medical research, advanced pharmaceutical manufacturing and enabling technology to build a globally leading RNA research and manufacturing ecosystem in Victoria.

A leading RNA ecosystem will equip Victoria and Australia with next-generation research and vaccine support for ongoing COVID-19 protection, future pandemics, and research capabilities for new drugs and medical breakthroughs. mRNA Victoria is the nation's leading funder of pre and clinical mRNA R&D as well as advanced RNA manufacturing and platform development.

mRNA Victoria led the clinical manufacturing of Australia's first mRNA COVID-19 vaccine candidate. Victoria will now become the first place in Australia to commercially manufacture mRNA COVID and respiratory vaccines after an agreement was reached between the Commonwealth, Victoria, Moderna and Monash University for Moderna to establish a commercial scale vaccine manufacturing facility at Monash University, Clayton.

The state-of-the-art facility will produce next-generation mRNA vaccines for a wide range of respiratory diseases, including COVID-19, to protect Australians against current and emerging health threats. Moderna will also establish its Asia-Pacific and Australian headquarters as well as its regional research centre in Melbourne and invest significantly in R&D and workforce development.

Advanced manufacturing

encompasses a vital set of enabling capabilities and technologies for Victoria's economy

Key advanced manufacturing capabilities and technologies include design, engineering, prototyping, robotics, automation, additive manufacturing (including 3D printing), sensors and data analytics, augmented and virtual reality, and advanced materials.

As well as being directly relevant to the production of manufactured products, these technologies are transforming pre-production (such as in R&D, design and supply management) and post-production (in logistics, marketing and after-sales).

These advanced manufacturing capabilities and technologies are adding value in multiple ways – such as by accelerating product development, making supply chains more efficient, and creating opportunities for new products, manufacturing startups and new partnerships in product design, production and distribution.

The capabilities and technologies are relevant across the whole of manufacturing – all manufacturers can become more competitive through smart adoption of new approaches and techniques. A key role for government is to invest in projects and initiatives that help manufacturers to innovate and increase productivity.

Widespread adoption of these capabilities and technologies is breaking down the boundaries between manufacturing and other parts of the economy, including between manufacturing and the innovation system. Advanced manufacturing capabilities have become essential enablers for transport, construction, health services and several other sectors of the economy.

Victorian manufacturing overview

Advanced manufacturing in Victoria makes a crucial contribution across the state's economy

Maintaining Victoria's leadership in manufacturing will require a sustained effort and targeted investments.

The Victorian manufacturing sector employs more than 267,500 people, making it one of the state's largest employers. More than 80 per cent of manufacturing jobs are full-time, and all manufacturing jobs are increasingly highly skilled.

Manufacturing contributes $31 billion per year to Victoria's Gross State Product (GSP) and despite many global challenges, Victorian manufacturing exports are booming, with $20.4 billion worth of manufactured goods exported from Victoria in 2020–21.

Victorian manufacturing firms invest $1.76 billion a year in R&D – more than in any other Australian state or territory.

To maintain this leadership, Victoria must continue to focus on developing advanced manufacturing by supporting strategic investments in skills, precincts and innovation; by pursuing specific sectoral opportunities; and by ensuring Victoria continues to be a favoured location for manufacturing investment and growth.

The Government will:

- support businesses to adopt and integrate advanced technologies in product development and manufacturing
- help create vibrant and reliable supply chains, such as by linking large and small manufacturers
- invest in advanced skills to help build a highly skilled, diverse and inclusive future manufacturing workforce.

Maintaining a vibrant manufacturing sector is a long-term endeavour that requires sustained and targeted support to build essential capabilities and internationally competitive businesses.

The potential benefits are significant, including rewarding jobs, higher productivity and incomes, and sustainable economic growth.

Breakthrough Victoria is keeping Victoria at the forefront of innovation and commercialisation

Victoria is home to some of the best scientific, digital and knowledge institutes and businesses in the world – all sharing a mission to discover the next breakthrough.

Breakthrough Victoria invests in innovations to develop their commercial potential, supports companies in emerging industries and generates jobs and prosperity for Victoria.

With $2 billion in funding over a 10-year investment period, Breakthrough Victoria has the capacity to be a patient investment partner for innovators, founders, researchers and companies across its five priority sectors of:

- Clean economy
- Health and life sciences
- Agrifood
- Digital technology
- Advanced manufacturing.

Breakthrough Victoria will invest its capital using five targeted investment programs:

Pre-seed

Early stage investment up to the value of $150,000 for proof of concept, pre-revenue and pre-mature prototype.

Typical investment size: <$150,000

Venture Capital

Direct equity investment in innovative businesses and follow-on from pre-seed program.

Typical investment size: $1 – 15 million

Growth Capital

Direct equity investments in mature businesses looking to expand existing innovative products/ services into global and domestic markets.

Typical investment size: $20 – 40 million

Platform

Investment in core platforms across industry, universities and medical research institutes.

Typical investment size: $25 million

Fund Investment

Partnerships with the impact investment funds to bring Breakthrough Victoria capital alongside other institutional and retail investors.

Typical investment size: $25 million

Current policy settings

Helping Victorian manufacturers thrive

The Victorian Government is supporting the growth and competitiveness of advanced manufacturing.

Through key programs and initiatives such as the Manufacturing and Industry Development Fund, Digital Jobs and the Local Jobs First Policy, Victorian manufacturers are becoming more advanced and globally competitive.

Local content requirements under Local Jobs First help to ensure a pipeline of work for local supply chains, supporting a wide range of manufacturing businesses, from construction materials to medical equipment. For example, requirements on the $1.85 billion Next Generation Trams Project increased local manufacturing and innovation, leading to a 65 per cent minimum local content commitment for the manufacture of trams.

The Major Projects Skill Guarantee (MPSG) under Local Jobs First is helping to grow the next generation of skilled workers in Victoria by providing opportunities for apprentices, trainees and cadets to work on high-value government construction projects. Since its introduction in 2016, the MPSG has been applied to 265 projects, employing 6,617 apprentices, trainees and cadets.

International competitiveness is critical to develop thriving, sustainable manufacturing businesses. Global Victoria offers a wide range of initiatives to support manufacturers to access global markets, including the network of Victorian Government Trade and Investment Offices.

Manufacturing also plays a key role in driving economic growth and prosperity across regional Victoria. The Victorian Regional Economic Development Strategies highlight key regional manufacturing opportunities and aim to stimulate further investment and growth in manufacturing across the state.

Victoria is also helping manufacturers to transition to net-zero emissions, and to thrive in a zero emissions economy, through a wide range of programs and investments.

These programs and investments include the Victorian Government's circular economy policy, Recycling Victoria: a new economy, and the Renewable Hydrogen Industry Development Plan.

The 2022–23 Victorian Budget included the establishment of the $120 million Victorian Industry Fund which will be delivered to support Victoria's economic recovery, generating new investment and jobs.

The fund includes:

- a new $40 million Victorian Industry Investment Fund
- $40 million in targeted incentives to attract business investment
- $20 million for an equity investment pilot fund to attract young, innovative companies in priority areas
- $19.9 million to support manufacturers to build their capability, invest in renewable energy and zero emissions component manufacturing, and help workers transition to advanced manufacturing jobs.

Intersections

This Statement intersects with a range of other initiatives and strategies:

- → VICTORIA'S INNOVATION STATEMENT
- → VICTORIA'S AGRICULTURE STRATEGY
- → BREAKTHROUGH VICTORIA
- → VICTORIAN SKILLS PLAN
- → INTERNATIONAL INVESTMENT STRATEGY
- → DEFENCE CAPTURE PLAN
- → REGIONAL ECONOMIC DEVELOPMENT STRATEGIES
- → VICTORIAN ROLLING STOCK STRATEGY
- → VICTORIAN FREIGHT PLAN: DELIVERING THE GOODS
- → VICTORIAN COMMERCIAL PORTS STRATEGY
- → GLOBAL VICTORIA = YOUR EXPORT PARTNER
- → RECYCLING VICTORIA: A NEW ECONOMY
- → VICTORIAN GOVERNMENT DIGITAL STRATEGY 2021-26

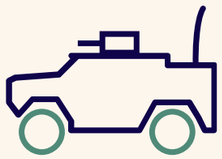
The Victorian Government is backing manufacturing

Moderna mRNA vaccine manufacturing facility
providing vaccine security through local supply.

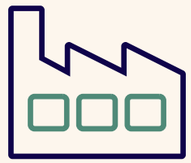
Australia's only offshore wind targets
driving $18 billion in investment and creating 6,100 jobs as we transition to net-zero emissions by 2050.

$8 billion invested in rolling stock and supporting infrastructure
ensuring Victoria's transport network can meet future demand.

$20 million Australian Medtech Manufacturing Centre
strengthening the manufacturing capabilities of Victorian medtech companies.



$10 million Victorian Land Systems Fund
improving the capacity and competitiveness of Victoria's defence businesses to win work with Hanwha Defense Australia for the Commonwealth Government's $1 billion LAND 8116 program.

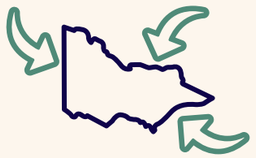


$1.36 million Smart Enough Factory Program
supporting small to medium-sized businesses in Victoria's defence industry to modernise design and manufacturing processes.

$60 million Manufacturing Industry and Development fund
boosting manufacturing capabilities and creating jobs in Victoria.

$40 million Industry Recovery and Growth Fund
supporting the delivery of large and strategic industry-led projects to drive medium to long-term employment growth.

$40 million Victorian Industry Investment Fund
supporting rapidly growing businesses, including supply chains that underpin economic resilience.



$40 million International Investment Attraction Fund
Targeted financial incentives to attract business investment into Victoria, in line with the Victorian Government's International Investment Strategy.

Breakthrough Victoria
An independent company investing $2 billion in Victorian Government funds in breakthrough innovations that will deliver sustainable financial returns and economic growth to the state over the next decade and beyond.

Recycling Victoria: a new economy
Over $500 million invested to modernise Victoria's waste and resource recovery sector.

2026 Commonwealth Games
Providing a significant opportunity for Victoria

In a Commonwealth Games first, Victoria 2026 will introduce a new multi-city model, bringing global sport to four regional hubs: Geelong, Bendigo, Ballarat and Gippsland.

With significant transport, accommodation, consumables and sporting infrastructure requirements, Victorian manufacturers can help meet the demand associated with hosting such a major international event. The Victorian Government will work closely with the Games organisers to maximise opportunities for local suppliers and to ensure the Games leave a positive legacy on the state.

The Fishermans Bend Innovation Precinct

Fishermans Bend has a long and proud history in manufacturing and innovation. Today the area is home to global companies including Boeing and Siemens as well as homegrown success stories such as Swoop Aero, SYPAQ and Blackmagic Design.

Working with these and other partners, the Victorian Government envisages the precinct will become internationally renowned as a centre of innovation in advanced manufacturing, engineering and design, hosting over 40,000 jobs and more than 20,000 tertiary students by 2050.

To drive growth, the Victorian Government is redeveloping the former GM-Holden site as the Fishermans Bend Innovation Precinct, with $179.4 million allocated to Stage 1 works. One of the first major new tenants in the precinct will be the University of Melbourne with its purpose-built engineering and design innovation campus set to open by 2026.

The Victorian Government has a clear vision for advanced manufacturing in 2030

As a key driver of economic growth and prosperity, it is vital that Victoria's manufacturing sector stays ahead of the curve by using advanced skills, processes and business models.

Skills underpin the innovation and R&D that help create a competitive advantage. Advanced processes, often achieved through the smart use of technology, unlock novel ways of doing things to improve efficiency and enhance product offerings. Advanced business models enable successful manufacturers to add more value for customers, including through customisation and after-sales services.

The Victorian Government is committed to strengthening the advanced manufacturing capabilities of local firms by investing in technology adoption and upskilling the future workforce. This will help businesses capture emerging opportunities in a changing global environment, raise their productivity and create high-value jobs.

Investing in the manufacturing skills of the future

With manufacturing becoming more sophisticated and agile, there is intense competition for talent across the manufacturing sector, both nationally and globally. Key to Victoria's leadership in advanced manufacturing is its highly skilled workforce, which is supported by world-class universities, R&D organisations and a highly advanced and networked TAFE sector.

The Victorian Government is continuing to invest in the skills of the future to help local manufacturers maintain their competitive edge and connect them to the talent they need. Key initiatives include:

Digital Jobs Program: building the state's digital workforce by training and upskilling up to 5,000 mid-career Victorians so they can transition into digital careers.

Digital Jobs for Manufacturing program: $4.5 million for 300 internships to help train, support and prepare Victorian workers to utilise digital technology in manufacturing.

Victorian Higher Education State Investment Fund: a $350 million fund to support universities with capital works, applied research and research partnerships focused on boosting Victoria's productivity and economy.

Defence Industry Workforce Development program: $2.6 million in funding to deliver additional internship programs to train Victorians to leverage opportunities in defence manufacturing.

Victorian Skills Plan: a 'skills roadmap' that represents a new approach to connecting industry, learner and community insights and provides evidence for the provision of training and skills across Victoria aligned to current and future job needs.

The Skilled and Business Migration Program: provides a state nomination pathway to a permanent visa, enabling Victoria to attract and retain skilled migrants, including engineers, technology workers, technicians and tradespeople.

Jobs Victoria: the Government's $619 million investment in employment services is connecting employers with the staff they need, jobseekers to training, and supporting jobseekers into high-quality manufacturing jobs.

Increasing women's participation in manufacturing: to increase diversity and inclusion across the manufacturing sector, the Government will partner with industry to develop a Women in Manufacturing Strategy. The Strategy will identify and address the challenges women experience when entering and remaining in the industry, and it will better leverage the significant contribution women can make to advancing the sector.

Industry priorities

The Victorian Government has identified five priority areas that offer the most significant opportunities for advanced manufacturing. Opportunities in these areas will guide future investments in Victoria's advanced manufacturing capability.

Victoria is well placed to capitalise on existing strengths and to bolster its global leadership in advanced manufacturing.

To that end, the Victorian Government will invest in skills and support manufacturers' adoption of advanced technologies and new operating models.

Creating more value through cutting-edge technologies, upskilling and reskilling workers, and investing in R&D will be critical for securing Victoria's economic future.

In addition to building advanced manufacturing capabilities across the economy, the Government will also prioritise actions in the following five sectors:

- Zero and low emissions technologies
- Health technologies
- Food manufacturing
- Defence, aerospace and space
- Digital and advanced technologies.

1 / Zero and low emissions technologies

More than 6,000 Victorians are currently employed in zero emissions industries such as wind and solar. The number of jobs is projected to jump to 30,000 by 2030. Investments in zero emissions products and technologies are creating huge opportunities for Victorian manufacturers.

2 / Health technologies

Victoria's $21.4 billion health technologies sector is a global leader in research and manufacturing. The sector exports $3.5 billion in pharmaceuticals (more than 60 per cent of Australia's pharmaceutical exports) and employs 31,400 people. Much more can be done, building on Victoria's existing leadership, to ensure a larger share of essential health product needs are sourced from local producers.

3 / Food manufacturing

Victoria's $36.9 billion food manufacturing sector accounts for a third of the state's manufacturing output. It exports over $9 billion in manufactured food and beverage products annually, and employs more than 74,000 people. Victoria is becoming an international leader and a global hub for advanced and sustainable food production, agrifood technology and innovation.

4 / Defence, aerospace and space

Victoria's $8.4 billion defence, aerospace and space sector supports exports of $350 million, employs 24,300 people, and accounts for 2.2 per cent of GSP. Victoria has the capability and expertise to be the national centre for defence and space-related R&D, design, manufacturing and innovation.

5 / Digital and advanced technologies

Developing and adopting digital and advanced technologies will continue to give Victorian companies a competitive edge and create export opportunities. The Victorian Government will invest in existing strengths, including advanced materials, and help build capability in other areas of opportunity such as robotics, artificial intelligence and digital transformative technologies.

Alignment with Commonwealth Government policies and programs

The Commonwealth Government has committed to rebuilding the manufacturing sector by:

- creating a National Reconstruction Fund to deliver up to $15 billion of capital as loans, equity and guarantees to the sector
- establishing an Australian Strategic Research Agency
- reducing energy prices by upgrading the national energy grid and boosting renewable energy
- maximising local content in manufacturing, including through the Buy Australian Plan.

Under the new national manufacturing plan, the Commonwealth's priority areas are: advanced manufacturing, medical manufacturing, critical technologies, transport, renewables and zero and low emissions technologies, defence, space and food.

Victoria's manufacturing agenda is strongly aligned with, and ideally placed to lead, the delivery of the Commonwealth's Made in Australia aspirations.

Sector priorities

	ZERO AND LOW EMISSIONS TECHNOLOGIES	HEALTH TECHNOLOGIES	FOOD MANUFACTURING	DEFENCE, AEROSPACE AND SPACE	DIGITAL AND ADVANCED TECHNOLOGIES
Policies and initiatives	→ Victoria's Climate Change Strategy → Victorian Offshore Wind Targets → Energy Innovation Fund → Recycling Victoria: a new economy → Gas Substitution Roadmap → Zero Emissions Vehicle Roadmap	→ Breakthrough Victoria → Innovation Victoria: Driving economic growth and jobs → Australian Medtech Manufacturing Centre → Health and Medical Research Strategy: 2022–2032	→ Strong, Innovative, Sustainable: A new strategy for Agriculture in Victoria → Innovation Victoria: Driving economic growth and jobs → Breakthrough Victoria	→ Defence Capture Plan → Space Industries Snapshot	→ Victoria's Cyber Strategy 2021 → Breakthrough Victoria → Innovation Victoria: Driving economic growth and jobs → Victorian Government Digital Strategy 2021-2026
Key achievements	→ Low Carbon Manufacturing Grants → $20 million Hume Hydrogen Highway project (with the NSW Government) → First export of hydrogen to Japan from HESC project → $37.9 million for Round One EIF (offshore wind) → VRET 2 to help make all government operational electricity renewable by 2025	→ Moderna mRNA production facility → Ginkgo Bioworks Australian headquarters → The Australian Medtech Manufacturing Centre → AI biotech company InterVenn Biosciences' Australian headquarters → Health-led Manufacturing Innovation Program	→ SVG Thrive agrifood accelerator locating in Melbourne → $133 million investment by George Weston Foods in facilities across regional Victoria → $12 million investment in alternative protein innovation at the Grains Innovation Park in Horsham → $10 million investment in Morwell Food Manufacturing Precinct → Food Frontier inaugural alternative protein conference in Melbourne → Delivery of the Australian Food Innovation Centre business case	→ The Victorian Land Systems Fund → Hanwha Defense Australia's new production facility at Avalon for Land 8116 → The RMIT Space Hub → Expansion of MOOG's Heatherton facility → Launch of SYPAQ's new Defence Autonomy Centre of Excellence → Smart Enough Factory program	→ The Digital Jobs Program → Development of the flagship Digital Hub at Cremorne, with connections across Victoria
Strategic priorities	→ Advanced materials and components for renewables, such as wind turbines → Zero emissions transport, such as electric vehicles → Technologies that promote energy efficiency, such as green steel and heat pumps → Manufacture of batteries and other new energy technology components to support the transition to net-zero emissions → Recycling and product stewardship	→ mRNA-based therapeutics and vaccines → Regenerative medicines and cell therapies → Smart devices, biosensors and in vitro diagnostics → Personalised implants and bionics → Biocompatible materials and bioscaffolds	→ Advanced food manufacturing capability and food innovation → Growing Victoria's sustainable food manufacturing capability → New high-growth sectors and value-add opportunities → Developing Melbourne's north as a centre for Victoria's world-class food innovation and value-adding ecosystem	→ Land systems manufacturing and sustainment → Guided weapons and explosive ordnance manufacturing and sustainment → Defence and space workforce, manufacturing and technology development → Capability uplift for the defence industry and space supply chains → Aerospace manufacturing and skills pathways	→ Design and manufacture of advanced materials → Growing Victorian capability in the manufacture of robotics → Investing in artificial intelligence and advanced digital technologies, including for applied robotics and autonomous vehicles
Goals and targets	→ Build capability and support investments in the local supply chain for advanced materials → Attract investments from global leaders in green, zero carbon manufacturing to help meet our goal to reduce emissions by 50 per cent by 2030	→ Secure co-investments in diagnostic manufacturing → Capitalise on Victoria's world-leading health technology expertise → Further develop local medtech and life sciences manufacturing capability	→ Secure Victoria's position as Australia's world-class hub for food innovation, manufacturing and value-adding → Attract investment in emerging foodtech capabilities and sectors → Grow Victoria's capability and reputation for sustainable food manufacturing	→ Establish Victoria as Australia's home for the manufacture of guided weapons → Secure significant share of national defence and space investment → Uplift the capability of the local SME base to win more defence work	→ Build on existing strengths in the design and manufacture of advanced materials → Position Victoria as the Australian leader in robotics and other advanced digital technologies

1 / Zero and low emissions technologies

Investing in zero and low emissions manufacturing will enable Victoria to boost our manufacturing capabilities and decarbonise the state's economy.

Public and private investment in zero emissions products and technologies is a huge opportunity for Victorian manufacturers.

With the transition to net-zero emissions, Victoria can become a centre for the manufacture and development of renewable energy, storage and zero emissions technologies. For example, local industry can leverage its strengths in advanced composites to produce zero emissions products.

With the highest wind and solar capacity per capita across developed nations, Victoria has a natural advantage in the deployment of zero emissions technologies. Zero emissions manufacturing will create jobs and deliver cheaper, more reliable energy. This will power the development of advanced manufacturing across other industries.

That is why the Victorian Government is building capability in zero and low emissions manufacturing. The Department of Environment, Land, Water and Planning leads a number of initiatives to support this ambition, including the Renewable Hydrogen Industry Development Plan, the Victorian Renewable Energy and Storage Targets, the Solar Homes Program, and Recycling Victoria: a new economy.

Sector priorities

The Victorian Government will invest in areas where local industry can make the most impact. These include:

- **Advanced materials and components for renewables,** such as wind turbines
- **Zero emissions transport,** such as electric vehicles
- **Technologies that promote energy efficiency and low-emissions products,** such as green steel and heat pumps
- **Manufacture of batteries and other new energy technology components,** such as hydrogen and electrolysers, **to support the transition to net-zero emissions**
- **Recycling and product stewardship**

CASE STUDY: COOLON

Coolon LED Lighting is a multi-award-winning Victorian advanced electronics manufacturer of premium LED lighting, a highly energy-efficient and long-lasting alternative to conventional lighting. It specialises in market-leading LED products for the mining, defence and architectural sectors, and is an approved supplier for major global companies such as BHP, Alcoa and Newcrest.

Coolon's range of lighting is exclusively developed and manufactured in Australia. The company is a champion of growing local advanced manufacturing and skills to help establish robust supply chains across Australia, attract talent and create more skilled jobs.

With significant investment in R&D, Coolon is continuously developing new products and technologies using its in-house capabilities, which include a large team and cutting-edge manufacturing facilities. The company's products integrate innovative features such as advanced thermal management, short circuit and open circuit protection, and app-based inspection reporting.

In 2021, Coolon received $50,000 from the Victorian Government to support its expansion into key South American markets. More recently, in recognition of its success and commitment to advanced manufacturing, Coolon won the Leader in Industry 4.0 award and was a finalist in the Medium Business category at the 2022 Victorian Manufacturing Hall of Fame Awards.

2 /

Health technologies

The health technologies sector was critical to Victoria's pandemic response. It is in the national interest to build on this success to secure long-term economic growth in the sector.

Victoria's $21.4 billion health technologies sector is a global leader in research and manufacturing. The sector exports $3.5 billion in pharmaceuticals (more than 60 per cent of Australia's pharmaceutical exports) and employs 31,400 people.

Monash University is ranked number one in the world for pharmacy and pharmaceutical sciences, and Victoria's research precincts have strong international ties and partnerships.

In addition, Victoria's design and engineering companies are globally recognised for their excellence and specialist skills in translating ideas into innovative medical products.

The Victorian Government will focus on strengthening the health technologies sector which will support existing investments in health infrastructure, workforce skills and clinical trial development.

Sector priorities

The Victorian Government will strengthen expertise in the following areas:

- **mRNA-based therapeutics** and vaccines
- **Regenerative medicines** and cell therapies
- **Smart devices**, biosensors and in vitro diagnostics
- **Personalised implants** and bionics
- **Biocompatible materials** and bioscaffolds

CASE STUDY: AUSTRALIAN MEDTECH MANUFACTURING CENTRE

The Australian Medtech Manufacturing Centre (AMMC) is a $20 million Victorian Government initiative that is supporting the growth and competitive success of medical technology (medtech) manufacturing – creating new jobs, enhancing skills and increasing investment.

Victoria is already a global leader in life sciences and medical research. AMMC is fast-tracking the development of medtech companies by supporting their access to local health procurement opportunities that strengthen their manufacturing capabilities.

AMMC is also partnering with health agencies, industry and peak bodies to identify and develop new opportunities for the Victorian medtech manufacturing sector and leverage the state's $4 billion public health spend.

In addition, AMMC is delivering insights on health demand trends and enabling greater collaboration and connectivity across the sector to support manufacturing business growth.

3 /

Food manufacturing

Victoria is a market leader in food manufacturing, with strengths in food innovation and R&D that can be further developed. With its high-quality produce, value-add manufacturing capability and strong export focus, Victoria has a compelling case for investors.

Victoria's food manufacturing sector accounts for a third of the state's total manufacturing revenue. It exports more than $9 billion of manufactured food products annually and employs more than 74,000 people.

The agrifood sector still has enormous potential to grow, building on its reputation for innovation with centres such as AgriBio and the CSIRO's National Food Innovation Centre.

To achieve its potential, the sector needs to bolster connections between researchers and industry, strengthen capability (including data and digital technologies), and invest in skills development.

Changing consumer preferences, advances in technology and a growing focus on sustainability are changing how food manufacturers operate and creating new business opportunities.

Victoria is well placed to benefit from these changes. That is why the Victorian Government will support local industry efforts to capture emerging opportunities.

Sector priorities

The Victorian Government will invest in the following areas:

- **Advanced food manufacturing** capability and food innovation
- **Growing Victoria's sustainable food manufacturing capability**
- **New high-growth sectors** such as alternative proteins and nutraceuticals and value-add opportunities
- **Developing Melbourne's north** as the centre of Victoria's world-class food innovation and value-adding ecosystem

CASE STUDY: GEORGE WESTON FOODS

George Weston Foods is a multinational food company that is one of the largest food manufacturers and private sector employers in Victoria.

With funding support from the Victorian Government, the business is investing $132.9 million into multiple modernisation projects for its baking and milling operations across regional Victoria and metropolitan Melbourne.

The projects include a new state-of-the-art flour mill in Ballarat, as well as investment in Industry 4.0, advanced manufacturing, automated machine learning equipment and enhanced logistics capabilities.

The investment will deliver increased production and exports and benefit an estimated 1300+ businesses along the supply chain.

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Defence, aerospace and space

This sector is vital to Australia's national security. Victoria is maximising the benefits of record levels of national defence, aerospace and space spending for the state, which represents a once-in-a-generation opportunity to deepen international connections, develop new technologies, and grow defence and space sector jobs, investment and exports.

Victoria's $8.4 billion defence, aerospace and space sector is already a key contributor to the state economy.

The sector supports exports of $350 million, employs 24,300 people and accounts for 2.2 per cent of GSP.

Victoria's defence SME supply chain base is the main source (71 per cent) of defence-related economic activity for the state. Victorian universities also contribute 40 per cent of annual national university defence R&D spend (around $61 million).

The Commonwealth Government's commitment to boost defence capability will drive growth in the local defence manufacturing sector.

The commitment includes investment of $270 billion to 2030 on defence capability acquisition and $180 billion on the sustainment of new and existing capability.

Victoria already hosts world-leading defence and aerospace companies, including Thales, Lockheed Martin, BAE Systems, Boeing, Hanwha, SYPAQ, Moog and SEGULA Technologies.

Victoria also has core strengths in space sector design, engineering and manufacturing. For example, Ronson Gears exports gear components for Lockheed Martin's military and commercial satellites globally.

Boeing Aerostructures Australia at Fishermans Bend is Australia's only designer and advanced manufacturer of structural composite components for Boeing's commercial airplanes, including for flight control surface products for the 737, 777 and 787 aircraft.

Building on these strengths, the Victorian Government will continue to invest in its world-class R&D and advanced manufacturing capabilities in defence, and support the state's ambition to become a leader in the global space industry.

Sector priorities

The Victorian Government will focus on sector development in the following areas:

- **Land systems manufacturing** and sustainment
- **Guided weapons and explosive ordnance** manufacturing and sustainment
- **Defence and space workforce**, manufacturing and technology development
- **Capability uplift** for the defence industry and space supply chains
- **Aerospace manufacturing** and skills pathways

CASE STUDY: HANWHA DEFENSE AUSTRALIA

In December 2021, Hanwha Defense Australia committed to establish an advanced manufacturing facility in Greater Geelong, creating over 300 high-skilled jobs.

South Korea's largest defence company, Hanwha Corporation also operates in aerospace, fintech, mining and clean energy. It established Hanwha Defense Australia in Victoria in 2019.

Hanwha Defense Australia won the bid to deliver the Commonwealth's $1 billion LAND 8116 program to establish a fleet of locally built and maintained self-propelled howitzers.

The company, which has signed a Memorandum of Understanding with the Victorian Government, is also bidding for other defence contracts, such as the LAND 400 Phase 3 – Infantry Fighting Vehicles program.

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Digital and advanced technologies

Victoria is a leader in the development and manufacture of digital products and services, and associated advanced technologies.

There is an immediate opportunity to support the digital sector to position the state as a leader in cutting-edge technology and an enabler of advanced manufacturing.

Maximising the adoption of leading technology will help Victorian firms remain competitive, and capitalise on the commercial and export opportunities that arise from developing proprietary manufacturing technology in Victoria.

Local strengths in advanced materials have positioned Victoria to become a global centre of excellence, with Victorian products sought after for various industrial applications around the world.

While there is a range of next-generation technologies set to disrupt manufacturing, specialising in particular fields including robotics and artificial intelligence will deliver commercial and practical benefits for local manufacturers. Effective use of these technologies also needs to be underpinned by strong cyber security.

One way the Victorian Government is supporting digital and advanced technologies is by investing in a flagship digital hub in Cremorne to position it as a global innovation and technology precinct. As the home to world-leading technology companies including MYOB, REA Group, Carsales and SEEK, this initiative will build on existing capabilities in Cremorne and support collaboration, business growth and investment.

Sector priorities

The Victorian Government will invest in the following:

- Design and manufacture of **advanced materials**
- Growing Victorian capability in **the manufacture of next-generation robotics**
- **Artificial intelligence and advanced digital technologies**, including for autonomous vehicles

CASE STUDY: BOSCH AUSTRALIA MANUFACTURING SOLUTIONS

Bosch Australia Manufacturing Solutions (BAMS) is a leading supplier of factory automation that is committed to strengthening the competitiveness of Australia's manufacturing sector. It is the only domestic factory automation company integrating bespoke machinery for local manufacturers that also has large scale manufacturing operations, so when a customer wants to automate a production process, BAMS has often already done it in its own factories.

BAMS is a leading user of Industry 4.0 systems in its plants around the world. It applies and provides these systems locally to support manufacturers to continually improve their operations.

Fletcher Insulation, a Melbourne-based advanced manufacturer, engaged Bosch to work with its manufacturing teams to design an automated bagging machine for its iconic Pink Batts product. The initial proof of concept machine was designed to improve over the historic manual process with its OHS and productivity issues. Following the successful implementation of the first cell, an additional six fully automated production cells were installed in its production facility in Dandenong.

The production lines were engineered and manufactured at Bosch's headquarters in Clayton, Victoria. With this successful partnership, Fletcher was able to expand its production capacity and improve competitiveness and occupational health and safety to meet growing demand and remain locally competitive.

Other startups that BAMS is supporting include 3RT (produces hardwood from waste timber and plantation-grown hardwood as an alternative to logging old growth forests), Bodd (produces 3D body scanners to digitally mass customise clothing sizing for the uniform, health, custom wearables and apparel industries) and MMAPT (robotically captures low-cost, high-resolution, standardised imaging for online product catalogues).

Next steps and how to find out more

This Statement outlines the Victorian Government's commitment to building a strong and resilient manufacturing sector in metropolitan Melbourne and regional Victoria.

By setting out the Government's commitment and specific sectoral priorities, the Statement will guide future policy and encourage investment.

The Victorian Government will work in collaboration with industry and other levels of government to identify and pursue opportunities to grow Victoria's manufacturing sector.

For more information on manufacturing in Victoria, visit **www.djpr.vic.gov.au/made-in-victoria**

Victoria's global reach

The Victorian Government has a network of global and local trade and investment offices, making it easier for businesses to access the support they need to invest, grow and enter new markets.

Global Victoria International Trade and Investment Office network

Victorian Government network

To receive this publication in an accessible format phone +613 9651 9999 using the National Relay Service 13 36 77 if required, or email **advanced.manufacturing@ecodev.vic.gov.au**

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