Victoria's AgTech Sector

INVEST VICTORIA

A test bed of ideas





Melbourne brings together all the necessary conditions for businesses to succeed and scale







#1 highest STEM graduates

Victoria produces more Science, Technology, Engineering and Mathematics related graduates than any other region in Australia or Singapore

14









internationally recognised agricultural R&D facilities

~30%

of Software Engineers in Australia are in Victoria

18,000+

postgraduate research enrolments annually

9

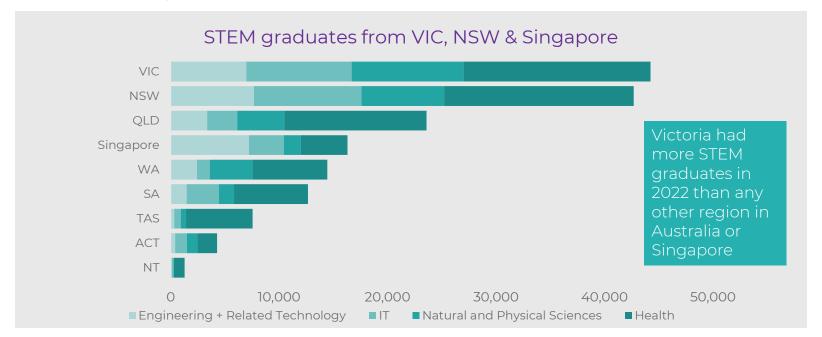




universities, including the top 2 in Australia – The University of Melbourne and Monash University, globally ranked 34th and 44th best respectively

Victoria produces the most STEM graduates

Victoria's world class education system produced more Science, Technology, Engineering and Mathematics related graduates in 2022 than any other region in Australia or Singapore.







Melbourne is geographically placed to serve your business



Land

One of the ${\bf lowest}$ industrial warehouse rents in Australia.

Significant existing and planned land zoned for commercial and industrial use.

Key manufacturing state – enabling Distribution Centres to be set up close to manufacturing sites.



Air

Two curfew free airports at Melbourne Avalon and Tullamarine, which handle ~26% of all national air distribution, including 39 direct international flight routes to key markets throughout Asia, the Americas, and the Middle East.

More than 35 million people passed through Melbourne Airport in the 12 months to June 2024.



Sea

Australia's **largest and most productive** container port with **3,000** ship visits p.a. handling over 3 million twenty-foot equivalent unit (TEU).

Three bulk terminals exist at Melbourne, Geelong and Portland for easy market access, including Australia's **most connected port.**

Victoria is a gateway between global markets and Australia's fastest growing state



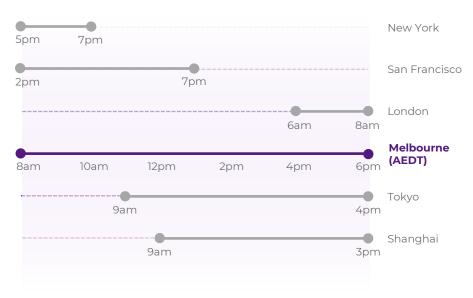
Melbourne is the **gateway** to Australia

80% of Australia's population **within 24 hours accessed** by road and arterial networks





The right location – Victoria's time zone is perfectly aligned for doing business regionally



Lower costs and an easier place to do business



Affordable office costs

Melbourne's prime office space costs are **less than half the cost** in Sydney, and its industrial lease costs are up to **66% cheaper** than Sydney.



Affordable living costs

Melbourne's consumer prices are more affordable – it is up to **14.4% lower** than Sydney and **25.6% lower** than Singapore.



Competitive tax burden

Victoria's payroll tax is **competitive with other states** in Australia and is **much lower for regional businesses**.

Business friendly នំរាំ

- Australia is one of the **easiest, safest, and most transparent** locations in the world to conduct business.
- Australia is ranked the 3rd in the region and 10th globally in the International Property Rights Index, reflecting the safe legal and stable political environment for business.



The Victorian startup ecosystem

3,500+

Startups

The number of tech companies is growing, with **1K+ active VC** backed startups.

\$132B

Ecosystem valuation

a **26x** increase since 2016. Home to **19 unicorns.**

1/3 of 3,500+

of Victorian startups

have been directly supported through a LaunchVic funded program.

\$842M

VC investment raised

by startups in 2024. **2nd in Australia** for VC investment raised



LaunchVic is Victora's startup agency, established by the Victorian Government in 2016 to lead the development of the startup ecosystem.

LaunchVic and Agriculture Victoria fund free business entrepreneurship programs helping Agtech startups test their ideas, find their first customers and access new networks.

Farmers2Founders is a specialist agrifood tech service provider formed in 2018 to deliver preaccelerator and accelerator programs for agrifood tech and innovation startups across regional Australia.

LaunchVic's extensive database of the local startup ecosystem and more is accessible online at LaunchVic Dashboard.



Victorian Government and Hugh Victor McKay Fund Supports AgTech Startups

airagri farmo



































AquaTerra Enabling Smart farming





VensoGrow







ADEPT AQUA























furrow











AgriBio







The Victorian Government is seeking to grow its agricultural research capability

AgriBio, or the Centre For AgriBioscience, is a joint initiative of the Government of Victoria and La Trobe University (La Trobe). AgriBio is **one of Australia's premier biosciences** facilities, with a key emphasis on supporting and **protecting Victoria's A\$20 billion agricultural sector** by focussing on cutting-edge research to:

- improve productivity;
- fight disease; and
- reduce environmental impact.

The A\$288 million facility is located at La Trobe's Melbourne campus in Bundoora and accommodates over 400 Victorian Government and La Trobe staff, including scientists, students, and business and science-support staff.

AgriBio has leading researchers focusing on molecular interactions at the plant-fungal interface, nutrition and reproduction, parasitology, plant development and biotechnology, plant pathology and mycology, plant-soil science, plant-soil systems and subsoil manuring.

The Australian agricultural sector



In 2023–24, Australia agricultural, fisheries and forestry exports were **valued at \$75.6 billion.**



The national agriculture sector is expected to be worth \$100 billion by 2030.



In the three years to 2023–24, Australia exported around 70% of the total volume of agricultural, fisheries and forestry production.



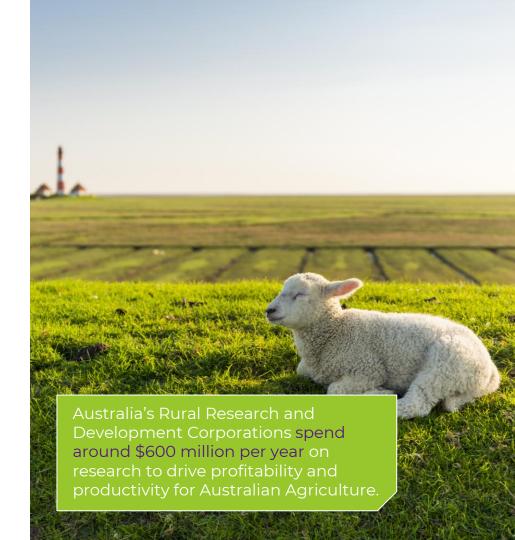
55% of Australian land use (426 million hectares, in December 2023).



A diverse agriculture, fisheries and forestry sector producing a range of crop and livestock products.

SOURCE: Snapshot of Australian Agriculture 2020 ABARES. Agriculture – A \$100b sector by 2030, AgriFutures. 7503.0 - Value of Agricultural Commodities Produced, Australia, 2018-19







Global drivers & trends

Counterfeiting, traceability and safety

With road, rail and port-based freight movements are expected to double between 2010 and 2040. Using technical solutions to improving provenance and traceability will be important to producers and consumers alike.

Increasing productivity in a harsher climate

Melbourne's temperatures are expected to rise with rainfall events becoming more variable. The World Bank estimates that climate change will have a negative 2.7% impact on Australian agricultural yield by 2050.

Scarcity of water

With longer summers and more variable weather patterns, farmers are looking for better ways to protect water security. According to CSIRO national water use is expected to double by 2050.

Biosecurity

Maintaining pest free status and access to key export markets

Global drivers & trends

Tailwinds

Free trade agreements

15 FTAs with 26 countries: giving the Australia industry access to a wide range of markets – including recent market access wins in China (red meat and apples).

Premium supplier

Australia holds a reputation of clean, green and high-quality products.

Pest & disease free

A highly sought after status allows Australia to access more markets and attract premium prices.

Headwinds

Trade barriers

Australia is continuously working to increase export opportunities and reduce an exporter's costs of doing business

World prices

Real prices of major Australian products have fallen significantly since 1950 and are unlikely to recover.

Climate variability

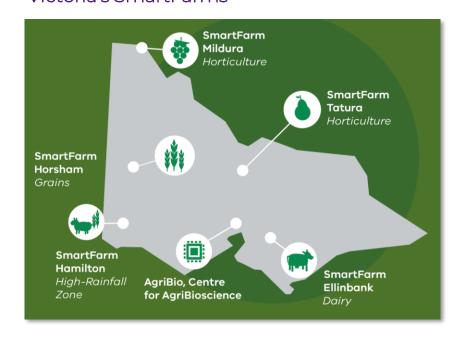
Average rainfall has declined, and extreme climate events are likely to be become more frequent.



Victoria is Australia's AgTech capital

- Victoria is home to Australia's agri-food sector and is the source of 24% of total Australian food and fibre export value in 2022-23, despite being only 3% of Australia's landmass
- Victoria's gross value of agriculture production reached a new record high of **\$20.2 billion**.
- Australia's capital for Wool, Dairy, Horticulture, and Prepared Foods.
- ~40% of Australia's food and beverage processing R&D is done in Victoria.
- Victoria hosts several AgTech start-up incubators and accelerators such as RocketSeeder and Startmate.
- Home to over 14 agricultural research and development facilities and organisations, including the Grains Innovation Park at Horsham, Horticulture Innovation Australia, and the ARC Dairy Innovation Hub.
- 154,000 people employed in Victoria's agri-food sector –
 69,000 in primary production and 85,000 in food and beverage manufacturing.

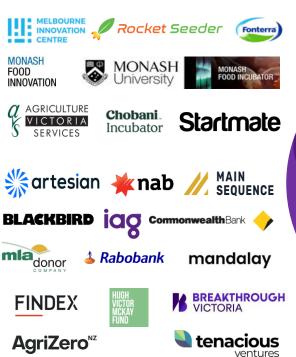
Victoria's SmartFarms

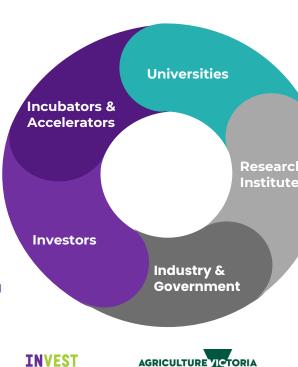


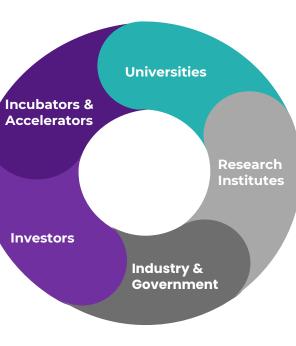


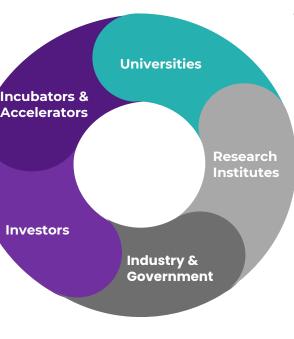
Victoria is home to Australia's food innovation ecosystem

Victoria has a significant number of suppliers, distributors, trade networks and research and development organisations.



















































LATROBE VALLEY









1 Iaunchvic













Victoria's AgTech, food and logistics companies

AgTech companies

































Large agriculture and food companies



















fieldin













Logistics and export



























Victoria has the right skills and talent

Victoria's **agriculture production and manufacturing sector employs over 154,000 people**.

>85,000 professionals in Victoria (33.3% of the total in Australia) skilled in Fast-Moving Consumer Goods, Food Science, Product Development and Food Technology.

Victoria's talent pool in **Agri-food** is at least twice the size of that in Singapore and Hong Kong.

Victoria produces more graduates in **Natural and Physical Sciences, and Food, Hospitality and Personal Services** than any other state in Australia.



#1

#13

University in Australia

University globally

- Offers 7 specialist agriculture courses
- Launched a Master of Food Science in 2020



Offers 9 specialist food science and technology courses



Launched a Bachelor of Sustainable Food Systems in 2021



Victoria is well placed to adopt and test AgTech solutions

- Victoria is geographically compact, with a range of farming systems within a few hours drive of metropolitan Melbourne.
- The implementation of digital agriculture across all Australian production sectors could lift the gross value of agricultural production by \$20.3 billion (a 25% increase on 2014-15 levels)¹.
- Victoria is home to 25% of all farm businesses in Australia with over 20,000 farms².
- There were over 21,000 farm businesses in Victoria in 2021–22, managing around 11 million hectares or 50% of the state's total land area.
- More than 75% of employment in agriculture production is in regional Victoria³.

Primary opportunities



Farm management using Al systems



Farm robotics, mechanisation and equipment



Novel farming systems



The Tatura Smart Farm, uses new technology to improve productivity by highlighting and shaping future fruit production systems for export markets.



Al and robotic technology will unlock new opportunities

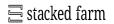
- Robotics and automation technologies in Australia are predicted to add up to A\$600 billion (US\$397 billion) per annum to Australia's GDP and increase productivity growth by up to 150%.
- Several pressures will drive AI and robotic uptake in agriculture and associated supply chains including labour, the availability, cost and quality, and the second is the increase in input costs fertilisers, fuel, water, chemical, the cost of machinery and implements².
- Al capability, which enables the development of smarter models that are continuously learning and helping to achieve and surpass yield and quality outcomes.
- The integration of AI and robotics into Victorian agricultural systems will improve farming practices by minimising resource wastage and environmental impacts. Making it more efficient, productive, and environmentally responsible³.





Victoria's AgriFood sector is ripe for automation

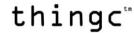
- Victoria produces one quarter of Australia's agricultural output estimated at A\$20.2 billion, with strengths in dairy and horticulture as a major exporter of agricultural products.
- Technology is advancing the agriculture sector and driving innovation in Australia. Robotics and automation is becoming more popular and can reduce labour costs significantly, helping to address the increasing labour shortages experienced by the sector.
- Victoria is an ideal testbed for new AgTech products due to its diverse climate and geography, strong collaboration with industry and researchers, supported by a growing AgTech ecosystem with five regional SmartFarms and AgriBio to prototype AgTech innovation.
- The Victorian Government has provided strong support for the AgTech sector, including \$15 million AgTech Regional Innovation Network (AgRIN) to support the growth of a vibrant Victorian AgTech ecosystem.
- Agriculture Victoria and the state's startup agency, LaunchVic, have
 delivered programs worth \$6.4 million to ensure more emerging
 AgTech startups have support to develop and scale, and access
 financial support to grow their business. The support has included a
 grants program, which provides equity-free grants of up to \$50,000
 to emerging AgTech founders.



Melbourne Airport will become home to one of the world's largest vertical farms

Stacked Farm is building a new 10,000sqm climate-controlled facility at Melbourne Airport and is expected to produce 3.4 million kilograms of fresh herbs and leafy greens annually, regardless of weather conditions.

Already Established in Market















Victoria is a leader in food and biotech research and commercialisation

- Victoria has well-developed research capabilities in its university sector with several of the state's major universities offering courses in Agricultural Science, FoodTech and Biotechnology.
- CSIRO's Food Innovation Centre, Monash University's Food Innovation Centre and Incubator, La Trobe University's Agribio facility are prime examples of local research and industry partnerships.
- Co-Labs Melbourne and Yild offers co-working lab space for biotech businesses, independent researchers and life science start-ups.
- Thriving biotech sector Victoria is home to more than 650 biotech companies, 10 major research institutes and teaching hospitals and nine universities.
- **Breakthrough Victoria** invests in innovations to develop their commercial potential, supports companies in emerging industries and generates jobs and prosperity for Victoria.



Melbourne's Biomedical Precinct

Australia's most important life science cluster, and one of only five of this calibre in the world. The precinct employs tens of thousands of people, including 10,000 researchers and about 700 biomedical, health and medical students located in the precinct.



Product development and processing







Supporting the Next Wave of Food Innovation

The **Monash Food Incubator** supports food and agriculture start-ups and entrepreneurs to develop new products and ideas, support growth, and provide mentoring for breakthrough product development. The capabilities encompass the entire agrifood value chain including:

- Functional foods
- Membrane filtration
- Waste biomass valorisation
- Nutrition/sports dietetics
- Sustainable packaging
- Big data and blockchair

- Remote sensing
- Robotic harvesting
- Biosecurity
- Supply chain logistics
- Consumer psychology
- Workplace safety
- · Modelling of market demand

















Virtual Product Testing at Monash's Food Innovation Centre, allows business to understand how customers interact with their product in the real world.



Victoria is a leader in food research and development

Victoria has over 10 innovation and R&D centres focused on R&D in food and beverage



The Future Food Hallmark Research Initiative is focused on the production of alternative proteins and the development of sustainable, healthy and affordable protein products.



<u>Future Food Deakin</u> initiative brings together diverse and innovative projects, research and partnerships will help to build a sustainable food system. Programs include:



 Consumer, Nutrition and Retail Science Lab.



RMIT Food Research and Innovation Centre is a world class facility that brings together multidisciplinary research and development capabilities in all areas related to the post-farm gate food valuechain to stimulate innovation and fill the capability gap that are critical for the future success of the Australian food Industry in the global market place.





Monash Food Innovation is a leader in the successful collaboration between academia and the domestic and global Agrifood sectors, driving end-to-end food innovation that is demand-led and market-fit. It drives consumer-led design and facilitate product testing and validation to increase retail readiness, leading to successful, marketable innovation.



Advanced Food Systems Research aims to resolve the challenges of sustainability, and healthy feeding practice of the growing future population in industrialised and developing nations through scientific and technological advancements.



CSIRO's Werribee pilot plant includes state-of-the-art food manufacturing research facilities, more than 3000m² in size and six self-contained 500m² registered food factory modules, with freezers, cool rooms, temperature-controlled rooms, office space and laboratories.



Victorian Government coinvests in AgTech startups

In June 2024, Agriculture Victoria, LaunchVic, the Hugh Victor McKay fund announced a joint program to invest up to A\$200,000 into at least ten early-stage Victorian AgTech startups over the next year.

Every dollar of funding is matched by two dollars of private investment, which means the fund will aim to activate \$6 million in total capital for founders building the future of on-farm technological innovation, productivity and sustainability.

A key feature of the program includes up to \$30,000 of the investment is provided as a grant to the startup, the remainder is taken as equity. This means founders hold more stake in their company at the early stages.

An additional 20 AgTech grants of \$50,000 have been provided to startups to build their business capability and access dedicated mentoring from experts to build their businesses, grow jobs and drive Victoria's economic growth.











Polybee establishes ANZ HQ in Melbourne

Polybee, a pioneering agritech company, has chosen Melbourne for its ANZ headquarters, marking a major step in its mission to transform agriculture with Al-driven yield forecasting and autonomous pollination.

Headquartered in Singapore, Polybee is a leader in agricultural technology, harnessing AI, computer vision, and machine learning to tackle challenges like food security, yield forecasting, and efficient pollination. The company has made significant strides in the agritech sector with its use of autonomous micro-drones and computer vision to enhance pollination and improve forecasting accuracy.

Polybee's technology has been instrumental in enhancing crop yields, working with significant growers like Flavorite and Perfection Fresh to provide scalable solutions for crops such as tomatoes, strawberries, and broccoli.

Polybee chose Victoria for its strong capabilities in horticulture and cropping, a highly skilled workforce, innovative R&D ecosystem, and collaborative ties between academia and the agribusiness sector exemplified by its Latrobe University - AgriBio Facility partnership.







Invest Victoria

Invest Victoria makes it easy for you to do business in Victoria, Australia.



We'll show you why Victoria is the best place in the world to live, work and invest.



Our world-class, professional investment team has deep connections into government, industry and Australia's leading research institutions.



We have a comprehensive approach to support you on your investment journey.



Bespoke market entry business case development



Local market overview of existing companies, key stakeholder and opportunity areas



Information on R&D capabilities



Information on labour market conditions, location and costs



Site selection assistance



Connecting businesses with a contemporary range of incentives, grants and programs



Introductions to potential industry partners, suppliers, service providers and customers