

GROW.

For Farmers. For Victoria.

Strategy 2024-2027

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We acknowledge and respect Victorian Traditional Owners as the original custodians of Victoria’s land and waters, their unique ability to care for Country and deep spiritual connection to it. We honour Elders past and present whose knowledge and wisdom has ensured the continuation of culture and traditional practices.

We are committed to genuinely partner, and meaningfully engage, with Victoria’s Traditional Owners and Aboriginal communities to support the protection of Country, the maintenance of spiritual and cultural practices and their broader aspirations in the 21st century and beyond.

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Introduction

Message from the AVS Chair

Victoria has built a globally competitive agricultural research system catalysed by a substantial program of investment in science and research capability that began over twenty years ago. Government leadership has stimulated co-investment by farmers (through levies) and industry to take Victoria’s leading agricultural research and turn it into an innovation engine that underpins a prosperous agricultural sector in rural and regional Victoria.

The rationale for ongoing investment into this area has become even more compelling over recent times, as Victoria seeks to grow export markets, maintain food security and secure an improved quality of life for farmers. In addition, our journey to Net Zero has added an urgent imperative for continued innovation within the agricultural sector in Victoria so that our farmers have the necessary products and services to balance productivity and sustainability priorities.

Individual farmers and industry players cannot be expected to have all the requisite skills, infrastructure and capital to undertake sufficient research to underpin the agricultural transformation required in Victoria. As such, Government’s role in stimulating these outcomes is to provide direct co-investment, encourage ecosystems of collaborators, establish a conducive regulatory environment and support infrastructure that stimulates innovation. However, it is also imperative that this innovation reaches farms for the benefit of Victoria and Victorians – and this is a core role for Agriculture Victoria Services (AVS).

Specifically, AVS exists to amplify the value generated by the Victorian Government’s investment into the AgriBio Centre and into the five regionally-based SmartFarms around Victoria. We do this by ensuring that research is translated into products and services that provide economic, societal and environmental benefits for our farmers, industry and communities. We understand our responsibility to do this in a commercially responsible way, so that we continue to maintain the ability to invest in the innovation lifecycle.

The role that AVS plays is constantly evolving, and we recognise that there are landmark challenges and opportunities within the sector that will require significant investment. This AVS Strategy 2024-2027 sets out our approach to contributing to the continued success of our agricultural sector for the benefit of Victoria - embracing an agenda underpinned by the need to Grow.



Sam Andersen
Chair, AVS

Message from the AVS Chief Executive Officer

AVS holds a unique place within the Victorian agricultural ecosystem. This ecosystem is dependent on our best and brightest researchers delivering farm-ready innovation to enhance industry productivity, resilience and sovereign capability. That innovation is particularly important as our agricultural sector adapts to great challenges associated with reducing carbon emissions and adapting to climate change. This transformation undoubtedly presents risks but also offers large opportunities for farmers to embrace new technologies and products.

The symbiotic relationship between AVS and Agriculture Victoria Research (AVR) is a central pillar in the role Government takes to ensure we have a vibrant and productive agricultural sector. Our relationship requires both entities to be responsive to the needs of their separate and collective stakeholders.

Increasingly, it is essential that AVS and AVR collaborate for the duration of the value chain from research strategy to product delivery. The upstream engagement of both organisations (‘engaging early and engaging late’) ensures that scientific and commercial strategy is considered for each project early in the project life cycle so that projects are tailored to industry needs and deliver outcomes for both public good and commercial benefit.

A key feature of this strategy is recognition of the value that AVS can add by providing a ‘foresight’ capability – identifying value for the agriculture ecosystem, capturing and protecting that value early, accelerating and maximising value along the chain and ensuring a return on investment. In order to deliver these services, AVS must continue to build a critical mass of exceptional talent, with capacity to engage across industry stakeholders and with the research community to maximise impact.

To maximise value for Victoria, AVS must maintain a risk-weighted portfolio view that is broadly reflective of the research interests of AVR and those agricultural industries that are important to the Victorian economy. This portfolio will be best nurtured by AVS directly investing in flagship projects, as well as leveraging the substantial funds of others in the public and private sectors to accelerate delivery of products and services.

As well as our focus on delivering public good and commercial outcomes for Victoria’s agricultural industry, as a self-funded independent entity, AVS must secure commercially reasonable returns to our own business to ensure we have an ongoing investment pool to re-invest in new innovations. It is imperative, as we deliver this strategy, that we refocus our efforts to accelerate returns to ensure the sustainability of our organisation and can continue to play our unique role for the benefit of Victoria.

These are worthwhile challenges, which we are ready and willing to embrace through this AVS Strategy 2024-2027.



Michelle Goldsmith
Chief Executive Officer, AVS

Our identity

Our Purpose

AVS unlocks the unrealised value of Victoria’s agricultural industries to drive better economic, social and environmental outcomes.

Our Value Proposition

AVS heightens the impact and reach of AVR research, and accelerates the time from discovery to application, using our:

- i) Customer, consumer and farmer insights and influence
- ii) Financial, commercialisation and investment leverage
- iii) Connectivity and partnerships with government and industry

Our Values

We make a difference

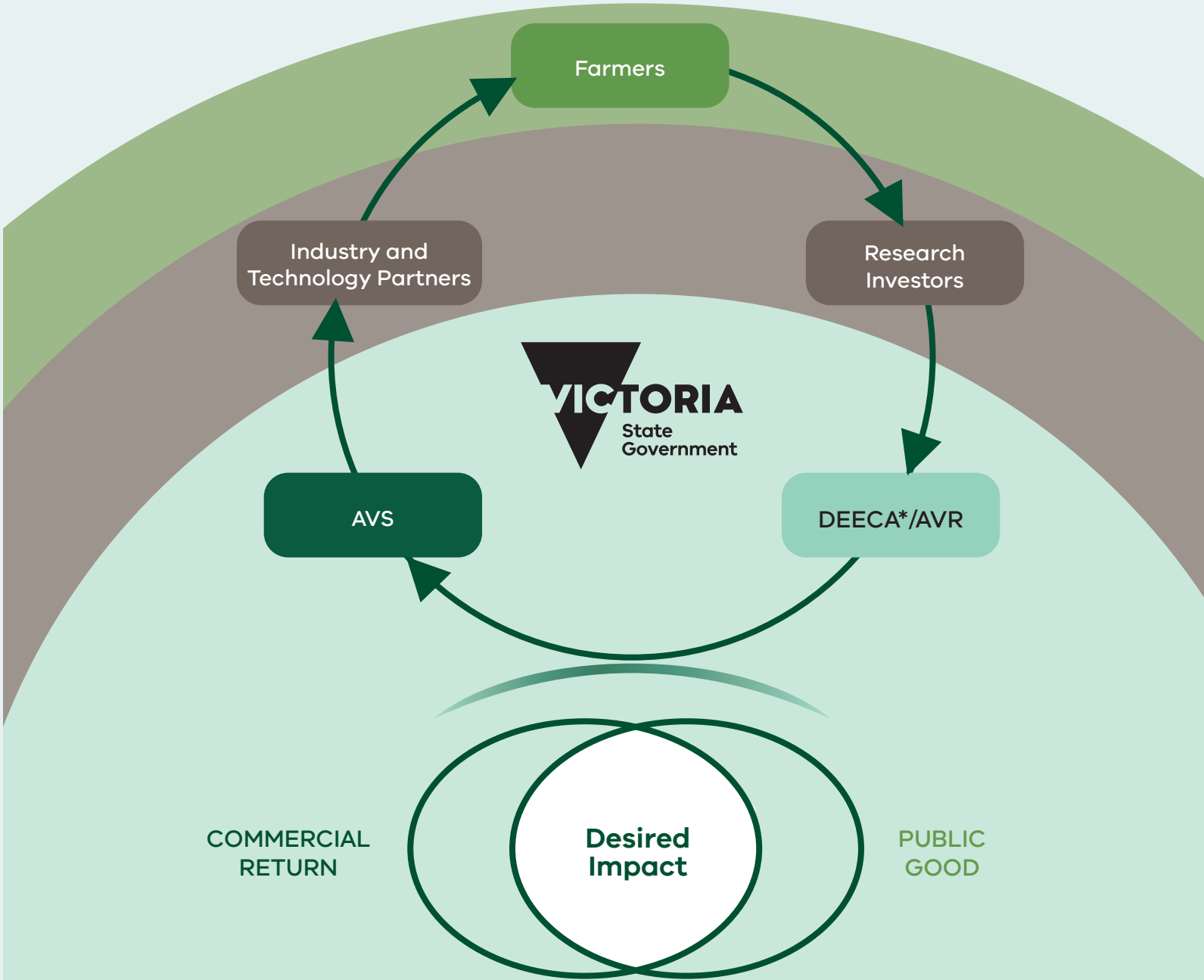
We act with integrity

We work well together

We understand and adapt to change

Our Value Ecosystem

AVS, together with AVR, drives the value chain that flows from the needs of farmers to targeted research, investment and partnership, to deliver innovations to farmers.



*DEECA – Department of Energy, Environment and Climate Action

Victorian agriculture

Victoria's agricultural sector plays a critical role in the overall prosperity and sustainability of the state. Its significance is to be found in its role as:

- **Production Powerhouse:** Victoria leads Australia as the largest dairying state, contributes over 10 million tonnes of grains for human consumption and 1.7 million tonnes of horticultural produce. Victoria's gross value of agricultural production (GVAP) was \$17.5 billion or 24.8 per cent of Australia's GVAP, making Victoria Australia's second largest agricultural producer, after New South Wales.
- **Foundation of Food Security:** Victoria plays a significant role in Australian and global food security through its substantial contributions to national and international food supply. In the fiscal year 2022-23, Victoria's food and fibre exports reached a record value of \$19.6 billion*, accounting for 24% of Australia's total exports in this category. This output underscores Victoria's pivotal position as the largest food and fibre exporter in Australia, influencing food availability and economic stability both domestically and internationally.
- **Driver of GDP Growth:** A robust agricultural sector translates to increased income from the sale of produce, directly impacting farmers' livelihoods, rural communities and the state's overall GDP.
- **Job Creator:** Agriculture fosters employment opportunities across various sectors, including farming itself, food processing, services and logistics, bolstering regional economies.
- **Environmental Enabler:** Sustainable agricultural practices employed in Victoria continue to contribute to environmental protection, water conservation and improved soil health.
- **Bedrock of rural communities:** Agricultural activity is a driver of flourishing rural communities, supporting local employment, ancillary businesses and environmental services that underpin long-term regional sustainability.

Value of top 5 agricultural industries in Victorian production*:



Victoria is the #1 food and fibre exporter in Australia*
Exports Valued at \$19.6 billion in 2022-23

*Data attribution: Sourced from publicly available data published by the Australian Bureau of Statistics (ABS) | Agriculture Victoria analysis

An industry requiring innovation

Victoria’s agricultural sector is facing landmark challenges from significant global and regional pressures. This necessitates a focus on innovation as the cornerstone for building resilience, maintaining industry value, and fostering continued productivity and economic strength.

Global challenges and opportunities

Agriculture faces significant challenges from climate change, declining natural resources and biodiversity loss, which threaten both production capabilities and sustainability. The agricultural industry is also under pressure to decarbonise supply chains, responding to global demands for environmental sustainability.

Geopolitical uncertainty and trade disruptions pose additional threats, particularly impacting regions like Victoria, by affecting both imports and exports. Simultaneously, evolving consumer demands in national and international markets are pushing for alternative ‘cleaner and greener’ products, increased volume, and higher quality standards that require the agricultural sector to adapt and innovate*.

Particular pressures for Victoria and Australia

In addition to global challenges, agriculture in Victoria and Australia faces additional pressures. The availability of essential resources like land and water is on the decline, hindering agricultural expansion. Further, the slowing pace of productivity gains calls for innovative solutions to improve efficiency and output.

The sector faces other barriers such as unfavorable trade agreements that limit export opportunities, complicating efforts to expand market reach. Moreover, there is a need to balance the need for food security with stringent biosecurity measures to protect against agricultural pests and diseases. This balance is crucial for ensuring safe and secure food supply chains.

Additionally, the evolving regulatory environment, particularly the Victorian Climate Change Act 2017 (Vic) mandate for net zero emissions by 2045, promotes adaptive and innovative agricultural practices.*

Innovation as the path forward

In Australia, there is a broad recognition that innovation will be the key driver for Victorian agriculture’s success*. To secure a thriving sector, key initiatives include:

- **Leveraging science and technology:** utilising cutting-edge solutions to build resilience against climate change and resource scarcity.
- **Investing in research and development:** prioritising research and development to enhance productivity and efficiency gains.
- **Sustainable and low-carbon practices:** developing agricultural practices aligned with Victoria’s Climate Change Act and relevant policies to ensure sustainability and decarbonisation.
- **Products and supply chain innovation:** fostering innovation throughout the supply chain to meet evolving consumer demands and market dynamics.
- **Advocacy for fair trade:** advocating for trade agreements that support and promote Victorian agricultural exports.

By harnessing the power of innovation, we can navigate the future challenges facing Victorian agriculture and ensure a strong, vibrant and sustainable sector for generations to come.



Simone Warner
Head, AVR

Agriculture Victoria Research delivers world-class research and innovation which spans the grains, horticulture, dairy, biosecurity and natural resource sectors. The research and innovation co-designed, co-invested and co-delivered with industry and research partners has never been as important as it is now.

Our partnership with Agriculture Victoria Services is essential to delivering high impact outcomes to recover, grow, modernise, protect and promote Victoria’s agriculture sector for the benefit of Victoria and Victorians.

*CSIRO (2024) Ag2050 Scenarios Report

World-leading agricultural research

AVR's research infrastructure is exceptional. AgriBio, Australia's first integrated agricultural systems biology research centre located at the La Trobe University Bundoora campus, serves as a central hub for collaboration, while a network of five regionally-based SmartFarms across Victoria enables researchers to translate their findings into practical solutions for diverse agricultural landscapes.



AVR is a critical driver of innovation in Victoria's agricultural sector.

AVR leverages an innovative research program focused on both fundamental and applied research, delivered by world-class scientists across primarily five sectors:

- Dairy
- Horticulture
- Grains
- Biosecurity
- Natural resources

AVR research and innovation supports the development of innovative farming systems, skills and technologies to increase productivity and to meet future production, climate, biosecurity, environmental, market access and workforce challenges for Victorian agriculture.

AVR's priorities focus on:

World class research and innovation: Co-developed and co-invested with key industry partners primarily across the dairy, grains, horticulture, biosecurity and natural resource sectors.

Climate change research and innovation initiatives: Targeted research to support emissions reduction, tackle methane and strengthen adaptive capacity, leveraging world-class scientific expertise, facilities and industry co-investment.

Plant and animal diagnostic and pathology services and biosecurity research: Advanced diagnostics, smart surveillance, mobile lab capability, Integrated Pest and Disease Management, reference collections and biosecurity IT systems with laboratory, industry and national system interoperability.

AgTech and agriculture technology development: With application and demonstration at our SmartFarms, in collaboration with industry partners.



Opportunities for value creation

Optimising animal health, welfare and productivity

- Develop and commercialise methane mitigation strategies for livestock and dairy products to help meet net zero targets and attract premium pricing from climate friendly products
- Generate breeding, nutritional and management strategies to improve animal performance, health, fertility and welfare without compromising profitability

Enhancing crop yields, quality and adaptability

- Deploy and commercialise crop growth models and whole genome prediction for major Australian grain crops to enhance yields, develop climate change resilience and improve food security
- Use advanced breeding technologies such as gene editing to develop high value traits for industry
- Deliver genetic and genomic services to support the grains industry
- Increase pulse production and market competitiveness
- Trial innovative farming and orchard systems to improve productivity in a changing climate

Developing strategies to combat threats from microbes, pests and diseases

- Explore bioattractants and biopesticides utilising smart lures and beneficial microbes to deliver environmentally friendly pest control solutions and reduced reliance on chemical pesticides

Ensuring sustainable management of water, soil and other vital resources

- Harness innovations in soil, land and water management for improved resource use efficiency and enhanced farm sustainability

Advancing fundamental knowledge of plant biology for future applications

- Capture a share of the growing alternative protein market
- Preserve quality through improved grain storage solutions retaining market value

Utilising cutting-edge genetic and cellular techniques for agricultural improvement

- Utilise genomic selection to improve livestock, crops and forages to improve human and animal health
- Explore extracting human-grade proteins from forages to create new high-value consumer product lines
- Explore novel forage breeding and editing techniques for more productive and resilient pasture
- Leverage machine learning and AI to enhance animal and plant breeding, leading to faster breeding cycles and improved crop and livestock performance

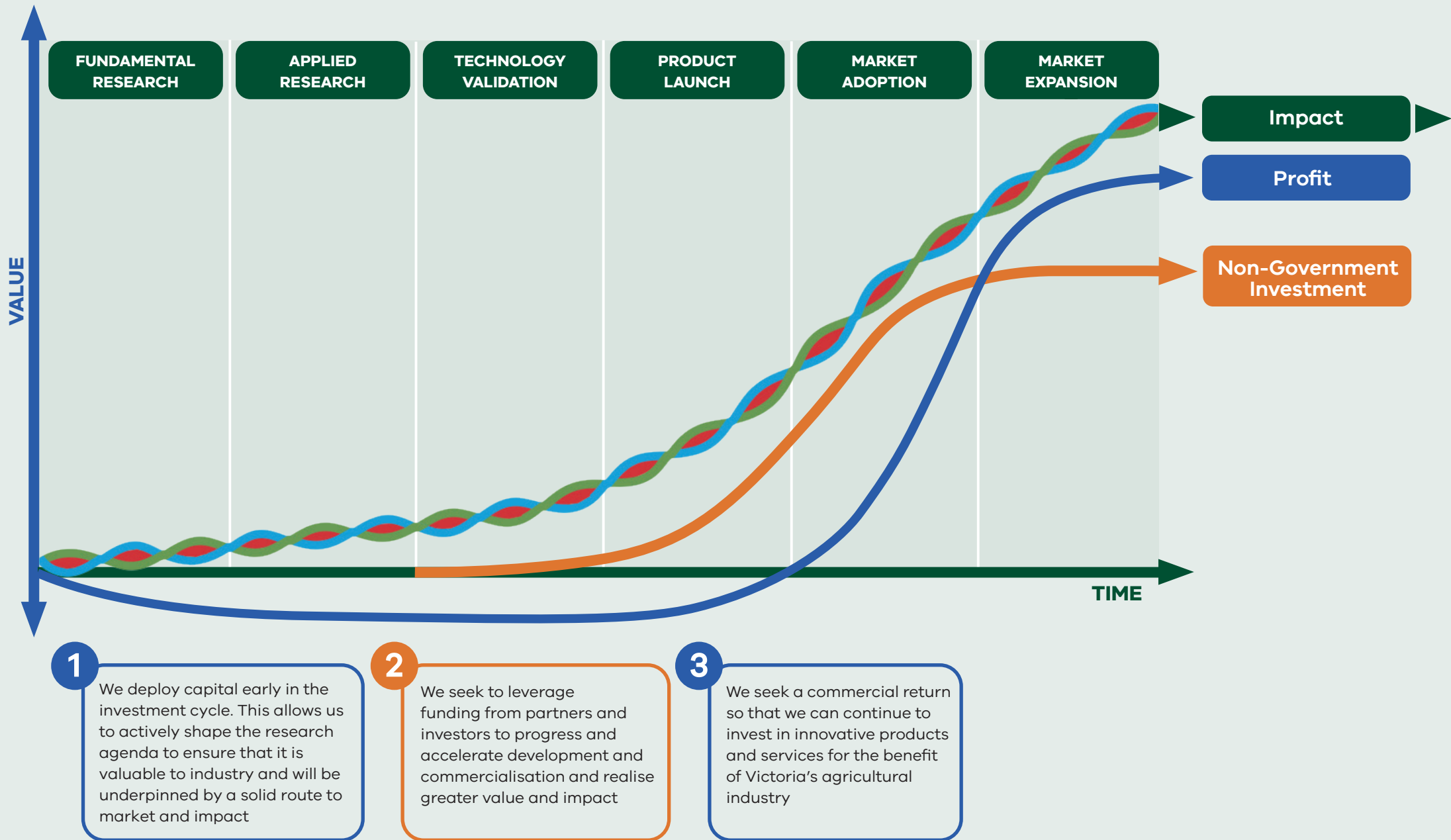
Digital transformation and sensor technologies

- Develop innovative traceability, robotics and sensor technologies that increase consumer trust and underpin premium pricing
- Improve on-farm sensor technology to enhance farm data collection and analysis and enable enhanced decision-making for farmers

How we grow value

We adopt a long-term investment horizon, recognising initiatives require time for value creation. At the same time, we collaborate with partners to establish robust decision-making frameworks, ensuring investments progress as quickly as possible towards achieving targeted returns, and getting innovations into the hands of farmers in the shortest time possible.

The AVS Value Chain for individual innovations



4 We target investments that generate a positive triple bottom line* impact (economic, environmental, societal) with a focus on scalability and exponential returns on impact as the initiative matures.

ECONOMIC IMPACT

Our economic benefits are increases in viability and profitability for farmers, and enrichment and protection for the state of Victoria:

- Quality
- Yield
- Efficiency
- Biosecurity
- Employment
- Exports

ENVIRONMENTAL IMPACT

We support agricultural contributions to climate stability and biodiversity, and contribute to meeting government targets:

- Nutrient use
- Biodiversity
- Emissions reduction
- Soil and waterway health
- Minimised water and chemical inputs
- Resilience to climate variation and pests

SOCIETAL IMPACT

We contribute to agricultural activity and the reach and uptake of better products, delivering benefits for communities and consumers:

- Regional jobs
- Nutritional components
- Attractiveness and ease of use
- Provenance and safety
- Wide applicability and reach

*The triple bottom line is a framework to evaluate performance based on three aspects – social, environmental and economic – to create greater value.

Our focus of effort



Imperatives	Objectives	Success Measures
Grow a portfolio with greatest impact for all	Maximise commercial returns	Value of portfolio
		Overall return of portfolio
		Productive use of assets
	Secure value-adding collaborators to accelerate innovations to market	Commercial partners
	Capture and protect valuable IP	Investable assets
	Invest in projects that focus on a triple bottom line	Economic, environmental and societal impact (public good)
Grow initiatives that leverage the highest value for AVR research	Enable validation of the most promising research and technology	Leveraged Investment
	Assist commercial partners to develop products based on validated technologies	Product to market pipeline progress
	Ensure active portfolio management for efficient allocation of investment and effort	Clear go and no-go criteria documented along critical path
Grow sustainable foundations so we have capacity for scale	Cultivate strong relationships with AVR researchers and industry stakeholders	Engagement with AVR researchers
		Active voice for key stakeholders
	Secure a steady talent pipeline	Talent supply
		Employee engagement
	Maintain financial sustainability	Diversified revenue streams
	Enhance robustness of governance structures	Risk is actively monitored and managed

Bringing our strategy to life

Our strategic advice and engagement with researchers

To bring our strategy to life, AVS must engage earlier in the value chain with AVR to build scalable investible projects that will provide innovative solutions to some of the biggest challenges facing Victorian farmers. These projects must include a defined route to market and route to impact, which is validated early and regularly.

This requires AVS to embed a strategic advisory capability and regular engagement with our leading researchers. This strategy acknowledges that a more traditional 'responsive' technology transfer role, on its own, will not enable the innovation required for industry to address the significant challenges it currently faces.

Our industry insights and partnering

AVS will increase its focus on gathering, sharing and acting upon insights from the entire agriculture ecosystem. Rich timely insights into the changing pressures and opportunities for industry, consumer expectations and the supply chain will ensure a demand-driven agricultural innovation agenda, with clear customers and markets.

Moving forward, AVS will particularly focus on defining routes to market that prioritise productivity for Victorian farmers – recognising that we exist to support and grow Victorian industry. This will involve engaging with Victoria's industry ecosystem to proactively select the right partners who will accelerate Victorian farmer access to innovative products and solutions. In this way, AVS will help manage the delicate balance between potential applications in Victoria and opportunities to address problems impacting global markets.

Our impact model

Through each development pathway, AVS must enable the best possible decisions to minimise investment, shorten time and maximise impact.

A clear model, outlining the investment logic, including a focus on the triple bottom line, will be developed for each investment project. Project management will be informed by decision gateways and the required assessments and information in support of continued investment. These rigorous processes will bring greater focus for staff and enable productive stakeholder engagement throughout the process.

Prioritising those opportunities that are most likely to deliver our desired impact means that AVS must embrace a 'fast-fail' philosophy and recognise that not all investment projects will be successful. Accordingly, we will regularly review our intellectual property and investment portfolios and actively discontinue investments into areas of lower relative priority or impact for Victoria.

Our team

Successful delivery of this strategy will require that AVS continues to build talent and engagement within its workforce – across niche capabilities including agtech commercialisation, capital raising, intellectual property management, investment portfolio management, advocacy and strategic planning. AVS leadership will cultivate a high performing team, recruiting the strongest talent, enabling a workplace culture in which everyone can thrive, and developing new capabilities to meet the opportunities and challenges of implementing this exciting strategy.



