AUSTRALIA'S ECONOMIC ACCELERATOR

Digital Agriculture

Australia's Economic Accelerator (AEA) is a $1.6 billion Australian Government investment aimed at transforming Australia's research translation and commercialisation landscape. AEA grants support the Australian Government identified priority areas for the economy (outlined in the *National Reconstruction Fund Corporation (Priority Areas) Declaration 2023*). Within these priorities, the first round of grants will prioritise projects that align with one or more of 6 focus areas, including advanced manufacturing, artificial intelligence, digital agriculture, quantum, sustainable fuels, and critical and strategic minerals processing.

Digital agriculture includes applications of digital platforms and data-driven approaches such as Internet of Things (IoT) and precision agriculture, automation and robotics, prediction and modelling, remote observation and mapping, and other novel methods to increase value-add, optimise resource usage, and enhance Australia's already outstanding reputation for producing safe and high-quality agricultural and food products.

> National priority

Agriculture, forestry & fisheries

Agriculture is a key export sector drawing on Australia's resource advantage and where technology driven productivity gains are particularly impactful. Digital agriculture aligns with the national priority areas through supporting development of sustainable processes and advanced technology across agriculture, forestry, and fishery value chains.

- Agricultural Traceability Strategy 2023-2033
- Agriculture and Land Sectoral Plan
- On Farm Connectivity Program
- Future Drought Fund
- List of Critical Technologies in the National Interest

Advantage

Australia is a trusted exporter of a wide range of agricultural products and a major supplier for growing global markets.

Opportunity

To increase agricultural productivity and value-add while expanding Australia's trusted brand into new markets and supporting sustainability and conservation goals.

> Research strength

Australia's rank in the OECD calculated using 2018-2022 bibliometric data from Elsevier's SciVal. Digital agriculture was defined using custom search terms.

6th
Output: number of scholarly papers

>

4th
Impact: field-weighted citation impact

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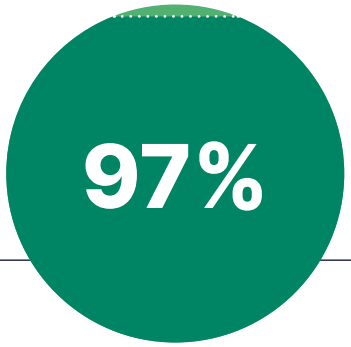
2nd
Quality: share of publications in the top 10% of most-cited journals

> IP potential

Australia's share of publications cited in patent applications compared to the OECD average expressed as a percentage.

Refers to 2018-2022 patent and publication data in the Lens database.



> Market opportunity assessment

- Australian market size of **AU$12.4 billion** in 2020[1]
- Predicted compound annual market growth of **18.4%** from 2020-26[2]
- Global market size of **AU$31 billion** in 2024[3]
- Predicted global compound annual growth rate of **10.5%** from 2024-2029[4]

> Example industry problems

AEA aims to provide developmental support for promising research commercialisation projects at the proof-of-concept or proof-of-scale level (TRL stages 3-7). Successful projects will scale up to meet emerging industry needs.

Industry problem	Opportunity	Impact
New consumer and trade partner demands for origin and sustainability information on products requires new levels of traceability.	Development of systems or tools for guaranteeing product characteristics and origin; and for tracing and optimising agricultural supply chains.	Bolstering Australia's global reputation as a high quality producer of agricultural products and capitalising on emerging consumer markets.
Labour shortages and relatively high labour costs increase the volatility and decrease the competitiveness of some Australian agricultural products.	Applying precision agriculture and physical automation systems to offset labour costs and increase productivity in areas such as harvest or post-harvest processing.	Reduce dependence on volatile labour flows and increase the competitiveness of Australia's agricultural products.
Climate change and general environmental volatility present risks to the viability of core agricultural products, particularly in the crop and horticulture sectors.	Applying sensors and IoT solutions to enable adaptive intervention and detailed monitoring for crops, including in areas like irrigation and soil health.	Reduce the impact of a volatile climate on Australia's agricultural output and mitigate against loss and damage and any resultant disruptions to trade.

> Other public investment options

- Agricultural Traceability Grants
- The National Reconstruction Fund
- Industry Growth Program
- Rural Research and Development Corporations

1 BDO Australia 2023, The Future of Australian Agribusiness
2 BDO Australia 2023, The Future of Australian Agribusiness
3 Mordor Intelligence 2023, Digital Agriculture Market Size
4 Mordor Intelligence 2023, Digital Agriculture Market Size