

AI and Australia's foundational industries: consultation paper

Purpose of this consultation

Skills Insight is preparing a submission to the Australian Parliament's [Joint Select Committee on Artificial Intelligence](#). We are seeking feedback from employers, workers, unions, industry bodies, training providers, researchers and other stakeholders across the agribusiness, fibre, furnishing, food, animal and environment care industries. Your feedback will help us:

- identify how AI is currently being used
- identify future opportunities, barriers and risks
- identify emerging workforce and skill needs
- gather practical examples from industry
- recommend actions governments can take to support successful and responsible adoption.

Complete our six-question survey to help shape Skills Insight's response. The survey should take approximately five minutes. Findings will also inform our workforce planning, training and capability development activities.

Have your say

Complete the five-minute survey by: 9am, Monday 14 September 2026

Survey link: [AI and Australia's foundational industries](#)

Position statement

Artificial intelligence (AI) is becoming a critical capability for the industries that feed Australia, manage natural resources, support regional communities and contribute to national productivity.

Across the agribusiness, fibre, furnishing, food, animal and environment care industries, AI is already helping businesses improve productivity, quality, animal welfare, environmental management, safety and decision-making. Examples range from autonomous machinery and precision agriculture to biosecurity monitoring, livestock management, computer vision, food inspection and environmental monitoring.

For these industries, the most significant opportunities may not come from generative AI alone. They are more likely to arise from AI embedded within sensors, machinery, robotics, monitoring systems, forecasting tools and operational decision-making systems.

Supported AI adoption can therefore contribute to:

- Australia's productivity growth
- national food security
- biosecurity preparedness
- environmental resilience
- workforce sustainability
- regional economic development
- supply chain resilience.

AI is not only a technology or productivity issue. For the industries supported by Skills Insight, it is also a food security, biosecurity, regional development and national resilience issue. Realising these benefits will require investment in workforce and organisational capability, training, connectivity and supported regional adoption.

What we mean by AI

For this consultation, AI refers to systems that perform tasks that would traditionally require human judgement, perception, pattern recognition, prediction, decision-making, content generation or interaction. These systems may use data, rules or a combination of both.

AI may be embedded in software, sensors, machinery, robotics, computer vision, forecasting or decision-support systems. We are interested in both generative AI and AI used in physical and operational environments. If you are unsure whether an example involves AI, you can still include it and explain what the technology does.

What existing evidence tells us

Existing evidence provides a starting point for consultation, but adoption and impacts vary considerably across industries, businesses, regions and applications.

AI is already being used

AI adoption is increasing across the Australian economy, but experimentation, point applications and deep operational integration are not the same. Agriculture and related industries appear to have lower general adoption than the national average, while significant operational applications are already in use across some businesses and industries.

Current applications include:

- crop forecasting
- livestock monitoring
- automated processing
- biosecurity surveillance
- environmental monitoring
- bushfire detection
- supply chain optimisation.

These activities demonstrate that AI is operational in these industries, although current evidence does not establish how widespread or mature adoption is.

AI offers wider industry and national benefits

AI can help industries increase productivity, respond to workforce shortages, use resources more efficiently and improve safety, quality and operational decision-making. Its wider value may include strengthening food security, detecting and responding to biosecurity threats, supporting environmental management and improving resilience to climate and supply-chain disruptions.

AI may also create new ways to deliver specialist advice, monitoring and support across dispersed operations. This creates potential benefits for regional businesses and communities, provided remote capability supports rather than replaces local expertise and workforce development.

Adoption is uneven and carries risks

Many industries supported by Skills Insight are characterised by:

- small and medium enterprises
- family businesses
- regional and remote operations
- fragmented supply chains
- limited connectivity and internal technology capability.

Cost, existing capital investments, connectivity, access to skills and trusted advice, technology support, data arrangements and uncertainty about returns can constrain adoption. Privacy, cyber security, reliability and dependence on technology providers can also create risks.

Without appropriate support, Australia could develop a two-speed pattern of adoption in which larger and better-resourced enterprises capture the benefits of AI while smaller and regional businesses struggle to participate.

Work and skill requirements are changing

Current evidence suggests that AI is more likely to change tasks and job design than eliminate whole occupations. Some routine administrative, information-processing and controlled physical tasks may be automated, while AI is likely to support a wider range of planning, diagnosis, monitoring and operational decisions.

Workers will increasingly need to combine industry expertise with digital capability, data interpretation, system supervision, troubleshooting and judgement. Supervisors and managers will also need capabilities in implementation, workforce consultation, work redesign and risk management. Human oversight and the ability to intervene will remain critical in safety-critical, welfare-related and accountable decisions.

Capability and governance determine outcomes

Technology creates potential, but workforce and organisational capability determine whether it produces value. Successful adoption requires a clearly defined problem, reliable data, worker capability, appropriate human oversight, clearly assigned accountability and systems that are safe and fit for local conditions.

AI adoption should therefore be judged by its outcomes, not by the use of technology itself. Implementation should consider productivity and performance alongside job quality, worker autonomy, safety, entry-level pathways, privacy, cyber security, animal welfare and environmental outcomes.

Australian data and industry expertise matter

AI used in Skills Insight industries must operate in Australian production environments and account for local climate, geography, biological systems, regulation and industry practice. Its effectiveness will depend on trusted industry data and people with the expertise to interpret outputs in context.

Australian AI capability is therefore not only about developing technology platforms. It also includes domain-specific tools, sector research and technical capability, workers who can operate, maintain and verify AI-enabled systems, and organisations that can assess providers, data arrangements and operational risks. Industry input is needed to identify where Australian data and expertise are most important, and

where dependence on overseas technology, infrastructure or support may create practical or strategic risks.

What we need to hear from industry

Existing evidence provides a starting point, but current industry experience is needed to test and strengthen it. Skills Insight is particularly seeking evidence about:

- **Current uses:** where AI is being used, trialled or considered.
- **Future opportunities:** where AI could create the greatest value for productivity, resilience, sustainability or workforce outcomes over the next five years.
- **Barriers and risks:** what is preventing productive and responsible adoption.
- **Workforce capability:** what workers, supervisors, managers and trainers will need to know and do.
- **Practical examples:** how AI is affecting real work, businesses or industry systems.
- **Conditions for successful adoption:** the conditions, decisions or actions needed to support successful AI adoption.

These topics are explored through a short six-question survey. We encourage stakeholders to share practical examples and observations from their business, workplace or industry.

Have your say

[Complete the five-minute survey](#) by 9am, Monday 14 September 2026.

Contact

For more information or to submit a short case study, please contact us on:

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