Australian Government

Department of Agriculture, Fisheries and Forestry

Enterprise Data Strategy 2026 to 2028

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Acknowledgement of Country

We acknowledge the continuous connection of First Nations Traditional Owners and Custodians to the lands, seas and waters of Australia. We recognise their care for and cultivation of Country. We pay respect to Elders past and present, and recognise their knowledge and contribution to the productivity, innovation and sustainability of Australia's agriculture, fisheries and forestry industries.

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Foreword

We are pleased to present the department's inaugural Enterprise Data Strategy 2026 to 2028. This strategy reflects the department's plans to manage the increasingly complex, data-rich environment in which we operate. To deliver trusted, efficient services, our department must manage data as a strategic asset. This strategy sets the direction for how we will govern, protect, share and use data across the organisation. It establishes the principles, capabilities and investments needed to ensure data is accurate, secure and accessible for decision-making, policy development, regulatory functions and frontline service delivery.

The department helps grow and protect Australia's food and fibre production industries, benefiting everyone – especially those in regional and rural communities. With agricultural production forecast to reach $101.4 billion in 2025–26, the sector remains a cornerstone of regional economies and employment.

Through this strategy, we will strengthen our stewardship of data and lift our maturity to meet government expectations, build community trust and continue to provide efficient and evidence-based support to the agricultural sector. High-quality, accessible data is critical to safely and ethically applying digital technologies (including AI) for the benefit of our customers, staff, stakeholders, partners and communities.

To ensure successful delivery, a comprehensive implementation plan will support the strategy. Our Chief Digital and Data Officer, alongside all our executive leaders, will drive this work – translating our strategic intent into tangible actions and measurable outcomes.

With rising expectations for responsive, digital and personalised public services, our department must harness data more confidently and consistently. Together, we all play a role in implementing these actions and fostering a shared commitment to building a data-enabled future. We invite all staff to engage with this strategy, contribute to its success and help us build a data-enabled future that benefits all.

This strategy is the result of extensive consultation, and we thank everyone who contributed to its development.

Victoria Anderson
Secretary
Department of Agriculture, Fisheries and Forestry

Amanda Chalmers
Chief Digital and Data Officer

Introduction

The whole-of-government *Data and Digital Government Strategy* defines data as:

> any information in a form capable of being communicated, analysed or processed (whether by an individual or by computer or other automated means).

The department holds many different types of data, including:

- data gathered about individuals and businesses in the course of our regulatory and administrative functions
- internal portfolio, program and project data used to track and report outcomes of specific initiatives
- publicly available data from external sources (e.g. Australian Bureau of Statistics)
- data sourced externally, used for models, forecasts, projections and analytical insights
- geospatial data – presented as static and interactive maps, location or geo-statistical analysis
- corporate data used to manage internal finances, human resources, security, property and other functions.

Effective generation, management and harnessing of data is fundamental to the modern economy, effective decision-making, innovation and operational efficiency. Data's value as an asset continues to grow exponentially, especially in the age of artificial intelligence. The department aims to drive a modern data-enabled culture to achieve sector growth, resilience and sustainability, and national biosecurity.

Importance of data

Data is fundamental to our department's ability to deliver on its outcomes to government.

We demonstrate this by:

- solving problems through data, research and science
- using data capably, ethically and accountably
- committing to a data-enabled culture where our decisions and advice are based on evidence.

By increasingly harnessing our data, along with artificial intelligence (AI) and analytics support, we enable tangible business outcomes across agriculture, fisheries and forestry to:

- drive sector growth by unlocking insights that enhance productivity, competitiveness and innovation in an evolving environment
- support resilience and sustainability through predictive analytics and data-enabled decision-making that promote environmental stewardship and low-emissions practices
- strengthen national biosecurity with intelligent systems that enable early detection, rapid response and risk-based protection for Australia's people, environment and economy
- deliver more effective and robust programs and policies by fostering a culture of data investment, collaboration, and transparency and unlocking the value of intelligent insights.

ABARES is already well known for its work providing professionally independent data, research, analysis and advice that informs public and private decisions affecting Australian agriculture, fisheries and forestry. ABARES collects and makes public a wide range of data sets.

Our approach to regulation per our *Regulatory Practice Statement* requires us to be risk-based and data-driven (Principle 2).

The Australian Government has embraced the need for a strategic data agenda and is taking a range of practical measures to ensure the APS gets the most out of our data assets. This includes development of the *Data and Digital Government Strategy*, as well as the implementation of the *Data Availability and Transparency Act 2022* to promote wider data sharing.

We need to support our staff to manage and protect data assets by applying the highest standards of privacy, security and ethics. We must also promote standards and practices to promote consistency and increase the visibility, usability and value of data.

Purpose of this strategy

To stay ahead, we must respond to the rapid shifts in how data is used across government, industry, academia and the community. Data strategies have become essential planning tools, working alongside corporate plans to build maturity. Success depends on a clear roadmap that builds on early progress and sets out priority actions. Our Enterprise Data Strategy, shaped through broad staff engagement, reflects the organisation's needs across policy, regulation and corporate operations.

Current situation

Data is central to how the department operates and makes decisions and there is a growing appreciation of the potential to drive and enhance better business outcomes. The department has strong pockets of data expertise, with opportunities for improvement through more consistent and efficient processes to improve data quality, access and discoverability. We also need to raise the general confidence to use data within the agency.

The department is strengthening its approach to data by adopting a federated model (hub and spoke) that supports staff capability and consistent governance. While legacy systems and varied practices have created challenges, we're streamlining and rationalising platforms and tools, clearly articulating data standards and beginning to build data literacy and confidence across the agency. These efforts are helping lift our data maturity and unlock greater value from the rich data we hold.

Our vision and priorities

Vision

Enabling a sustainable and prosperous Australia by using trusted data, evidence-based insights and ethical innovation in biosecurity, production and trade.

Priorities

Data is a fundamental enabler of the business. This strategy aims to highlight what we need to do to ensure that quality data is available when and where people need it and that it helps us deliver on governments aspirations, objectives and outcomes.

By embedding ethical AI, fostering data connectivity and investing in data maturity, we will transform how we deliver policies, services and programs; engage stakeholders and drive innovation across agriculture, fisheries and forestry.

Objectives

1. **Value data as a strategic asset** – Ensure data is trusted, high-quality and aligned to organisational needs.
2. **Enable seamless access** – Make data readily available, discoverable and usable when and where it's required.
3. **Build a data-enabled culture** – Develop leadership, skills and behaviours that embed best practice data use across the organisation.
4. **Turn data into insights** – Deliver actionable intelligence to support evidence-based decisions and measurable outcomes.

Principles

The DRIVER principles guide how we manage and use data to create meaningful, lasting impact. By embedding these principles into our governance, culture, and infrastructure, we foster enterprise-wide insights and build a department that is more connected, responsive and data-enabled.

D

Discoverable
Data assets are visible, accessible, and shareable.

R

Responsible
High standards of data stewardship.

I

Interoperable
Enable seamless integration.

V

Valued
Data valued as a strategic asset.

E

Evolving
Continuously maturing our data practices.

R

Reusable
Reducing barriers to data reuse.

Strategy at a glance

Over the next three years, we will take strategic actions to strengthen our approach and achieve our objectives, while addressing the key issues in our current state.

Value data as a strategic asset

Objective statement

Establish data as a core organisational asset by ensuring it is high quality, fit-for-purpose, well-catalogued and managed effectively through its lifecycle.

Summary actions

- Govern and manage data effectively across the data lifecycle, including clear stewardship of data.
- Enhance data integrity, quality and consistency.
- Improve the accuracy and reliability of our data sets.
- Build guardrails and controls to protect the privacy and security of our data.
- Remove duplication in platforms and tooling to reduce cost, make it easier to maintain authoritative sources of truth, and to improve interoperability.

Build a data-enabled culture

Objective statement

A workforce and leadership team with the skills and culture necessary to maximise the effective use and management of data.

Summary actions

- Set up strong data rules and governance oversight functions.
- Make sure our data systems, digital tools, rules, and ways of working all fit together so they work smoothly and can quickly adapt when things change.
- Give people the skills and confidence to work with data and use it well.
- Grow and keep our expert data talent.
- Actively drive adoption of AI and embed ethics and accountability into our use of data and data technologies.

Enable seamless access

Objective statement

Provide timely, secure and user-friendly access to data, enabling staff to find and use information without barriers.

Summary actions

- Ensure that data is created once and reused via improved discoverability and system integration.
- Publish a searchable directory of datasets, stewards and access instructions.
- Develop a data sharing network to promote sharing with best practice.
- Encourage cross-agency reuse of high-quality datasets, including geospatial.
- Across all datasets, apply controls that are consistent and aligned with the Protective Security Policy Framework (PSPF) and the Information Security Manual (ISM).

Turn data into insights

Objective statement

Transform data into actionable intelligence that informs decisions and drives measurable outcomes.

Summary actions

- Improve our data collection abilities and our array of data sets.
- Better integrate our systems and data sets.
- Make better use of predictive analytics, machine learning and artificial intelligence to uncover connections, patterns and insights in our data.
- Make data, dashboards, business intelligence and visualisation tools more readily available to internal and external customers, executives and leaders.
- Use evidence and data to drive decisions and strengthen accountability.
- Use data to streamline regulation, reduce administrative burden and improve transparency.

Detailed strategy

Value data as a strategic asset

The department manages diverse data assets – including structured, unstructured, and geospatial data. The volume, type and complexity of this data is growing rapidly and is in high demand for use in technology and data solutions to grow our agricultural sector and protect our biosecurity. Our data assets also serve as a critical resource for other government agencies and stakeholders – supporting policy development, emergency response coordination, and region-specific strategies that build long-term community resilience.

If data is poorly managed, it can become a liability. Minimising the ongoing costs of handling and storing data by only collecting the data that is needed and using, reusing, improving and sharing data effectively is important to maintain the value of the data asset.

The outcome we are seeking

High quality, fit-for-purpose, well-catalogued data that is managed effectively through its lifecycle.

Strategic data initiatives will be implemented to improve productivity, reduce duplication and enable rapid, evidence-based responses.

Improved data discoverability enables staff to quickly find and use the data they need – allowing timely, evidence-based action across complex supply chains and emerging risks.

To achieve this objective, we will:

Establish data management policies and monitor data integrity – Implement a data integrity framework, assign data stewards, embed lifecycle checks, and conduct regular audits to ensure data is fit for purpose.

Promote privacy, security and transparency – Monitor data quality and enforce standards to ensure privacy, security, consistency and reliability in the department's data holdings.

Strengthen metadata and standards management – Apply consistent metadata standards, automate tagging, and train staff to improve accuracy and interoperability.

Rationalise data platforms and tooling across the department – Transition from a fragmented environment that is slowing and blocking our ability for advanced analytics to a consistent set of tools and a single enterprise platform that translates into faster cycle times for insights and decisions.

Enable seamless access

Having the ability to access data from across the department, industry and from other agencies allows us to build richer and more informative data products.

Assumptions can be minimised, time is saved recollecting data others already have, trust and collaboration is fostered between teams and agencies, and transparency is promoted.

However, we must ensure that data we share is properly protected and safeguarded. We need to have proper frameworks and best practices in place to not only facilitate sharing but also to guarantee security.

The outcome we are seeking

Provide timely, secure and user-friendly access to data, enabling staff to find and use information without barriers.

We will be able to provide our decision makers and government with access to a wider and richer array of data to enable greater insights through the establishment of data sharing networks across the APS, academia and industry, aligned to national standards and best practice.

To achieve this objective, we will:

Develop and maintain a central data asset register – Build and support a searchable catalogue of departmental and Indigenous data assets with clear ownership, guidance and accountability.

Develop a data access and sharing network – Implement a department-wide framework and agreement register to ensure lawful, ethical and secure data sharing aligned with national standards and best practices.

Monitor and improve access – Track performance, review data sharing agreements and use stakeholder feedback to refine access processes and strengthen governance.

Enable secure, scalable access – Deploy role-based controls, APIs and self-service tools to streamline and safeguard access to enterprise and geospatial data. Across all datasets, apply controls that are consistent and aligned with the PSPF and the ISM.

Improve data accessibility and collaboration – Deliver an awareness campaign on accessibility, promote training on tools and obligations, and encourage cross-agency reuse of high-quality and geospatial datasets.

Cross-sector data sharing – Develop and adopt secure data exchange capability for use across agencies and our sectors that incorporates privacy-enhancing technologies to enable data discovery and safe data sharing and use.

Build a data-enabled culture

Access to data alone is not enough: a data-literate workforce is central to driving innovation, productivity and resilience.

A strong data culture is achieved when senior executive leaders play an active role in championing the value of data as a strategic asset.

This is complemented by having a workforce that is data-literate, that understands the importance of data, recognises its value and is equipped with the tools to harness it.

Furthermore, the department needs to be supported by data specialists that can make the most of emerging technologies.

The outcome we are seeking

A workforce and leadership team with the skills and culture necessary to maximise the effective use and management of data.

By embedding data leadership, governance, and capability at every level creates a system where data is not just a technical asset owned by a specialist data team, but it becomes a core part of the culture, daily operations and decision-making.

To achieve this objective, we will:

Strengthen data governance – Create and embed a formal data governance framework with clear roles, responsibilities and escalation paths. Apply risk management practices to support consistent, compliant delivery.

Build a data-enabled culture – Support a department-wide initiative to build data awareness and accelerate the adoption of AI. Integrate data principles and AI basic training into onboarding and ensure that all senior executives understand their role in championing effective data and AI use.

Build and sustain workforce capability – Launch tiered training programs, embed learning into onboarding and leadership development, and promote career pathways and communities of practice. Align roles with the APS Data Capability Framework and track training impact.

Advance data maturity and capability – Use maturity assessments to identify gaps and guide improvements. Build capability through training, specialist upskilling, staff rotations, and pilot projects.

Promote ethical, inclusive and culturally safe data use – Embed ethical review processes, apply the Framework for Governance of Indigenous Data, engage First Nations stakeholders, and continue cultural competency training across the department.

Embed strategy, frameworks and policies – Monitor compliance with internal and whole-of-government data and AI frameworks, ensuring alignment with departmental goals and obligations.

Turn data into insights

Achieving a truly data-enabled organisation requires more than just providing good quality data and information to decision makers – it requires us to generate and communicate timely, accurate and relevant insights that all staff can act upon.

This relies on acquiring the right data from trusted sources across the public and private sectors and making it available for analysis efficiently and safely.

The use of advanced data analytics techniques such as machine learning and predictive modelling that provide rich, high quality and targeted insights must be embedded in data practices to accelerate the delivery of insights to decisions makers. Self-service insights hubs can provide additional value, including trend analyses, visualisations and clearly communicated key messages to inform decisions and actions.

The outcome we are seeking

Data is transformed into actionable intelligence that informs decisions and drives measurable outcomes.

This will allow us to better focus and streamline regulation by being more risk focused. More rapidly identifying emerging climate and trade risks and biosecurity threats, responding to them faster.

Ethical use of AI and advanced analytics will transform operations and deliver back-of-house efficiencies. Our AI policies provide a framework for AI initiatives to be governed, co-designed and applied in a human-centric, safe, transparent, fair, ethical, and legal manner.

To achieve this objective, we will:

Use insights to inform risk and service delivery decisions – Integrate operational, trade and biosecurity risk data sets into a central platform. Leverage open data to enrich our analysis and explore AI assisted analytics for patterns, image recognition and document verification and classification. Move from hindsight to foresight through predictive modelling.

Operationalise and govern AI as a strategic capability – Deliver an AI roadmap and apply assurance, investment, and benefits frameworks to qualify and prioritise initiatives. Assess inflight use cases against design principles to ensure safe, ethical, and scalable adoption.

Deploy dashboards and self-service reporting – Build and maintain dashboards and modelling tools to support real-time decision-making. Empower decision makers to explore data independently and uncover insights quickly.

Use data to streamline regulation – Apply analytics and automation to simplify compliance processes, reduce administrative effort and improve transparency. Provide regulators and industry with clear, timely, and actionable information to support evidence-based decision-making.

Image credit: Getty Images/blue jean images RF

Case study- FarmPredict

FarmPredict is a showcase about how all the priorities in this strategy can come together to enable positive outcomes for safeguarding and growing sustainable agriculture, fisheries and forestry.

FarmPredict is an innovative AI-powered solution that is reshaping how the department makes decisions, contributing to understanding and managing the impacts of climate variability and change, supporting improved resilience and sustainability for Australia's agriculture sector. By turning vast volumes of raw data into actionable insights, FarmPredict demonstrates the power of data to drive tangible outcomes for one of the nation's most vital industries.

FarmPredict leverages a rich tapestry of data: climate records, satellite imagery over 40,000 farm observations, and market trends. Individually, these datasets offer fragments of knowledge. Together – ingested, cleansed, integrated and modelled through FarmPredict's AI engine – we create the ability to forecast climate scenarios and drought monitoring. Critically, we can then simulate the sensitivity and exposure of the agriculture sector to these risks.

High-quality, interoperable and timely data has enabled FarmPredict's AI models to evolve from experimental prototypes to fully operational tools used by the department to create value for our stakeholders.

FarmPredict has significantly contributed to understanding and managing the impacts of climate variability and change, supporting improved resilience and sustainability for Australia's agriculture sector.

FarmPredict is a compelling example of how leveraging our data as an asset, making use of accessible data sets, applying strong capability generates actionable insights via its intelligent AI-powered solutions.

Strategic alignment

This strategy aligns with the Data and Digital Government Strategy (DDGS) – the Australian Government's blueprint for the use and management of data and digital technologies. It supports the vision of delivering simple, secure and connected public services for all Australians, enabled by world-class data and digital capabilities.

It is also consistent with key national frameworks and legislation:

- Data Availability and Transparency Act 2022
- APS Data Ethics Framework
- Policy for the responsible use of AI in Government
- APS Data, Digital and Cyber Workforce plan 2025–30
- AI Plan for the Australian Public Service 2025
- Privacy Act 1988

A commitment to First Nations economic self-determination

We recognise the importance of land tenure and use, agribusinesses and community priorities. This strategy aligns with the National Agreement on Closing the Gap Priority Reform Four: Shared Access to Data and Information at a Regional Level.

We commit to inclusive data governance that:

- respects Indigenous knowledge and its role in shaping data practices
- promotes inclusive practices to managing, securing and accessing First Nations data
- ensures government-held data reflects First Nations priorities and supports their right to self-determination.

Benefits

This strategy will deliver tangible value and inform future decisions and investments.

By the end of 2028, this strategy will help deliver:

- accessible, high-quality data that supports AI integration and drives innovation across government and industry
- greater access to data that enables data sharing, rapid response to emerging challenges and informed decision-making
- actionable insights for decision-makers and staff across the department and industry that will
  - support the competitiveness and profitability of the agriculture sector
  - streamline regulation processes and better target compliance activities
  - identify emerging climate and biosecurity risks
  - support rapid evidence-based decision-making.
- stronger contributions to industry outcomes that build public trust and demonstrate the value of data-enabled services
- build a data-enabled culture and leadership within the department
- support the growth and retention of specialist data skills
- clear guidance encouraging culturally safe and responsible data and AI use.

This strategy positions the department to unlock the full value of its data – driving smarter decisions, enhancing productivity and regulatory efficiency, strengthening biosecurity, and growing Australia together for a more connected future.

Partnering for success

Delivering this strategy requires strong internal collaboration to elevate how data is used, understood and embedded into decision-making across the department.

Key internal partners include:

Workforce planning – to align data capability with workforce strategies and future needs.

Learning and development – to build data literacy and support staff in developing the skills to confidently engage with data and analytics.

People strategy – to embed cultural change and capability uplifts as part of the broader departmental transformation.

Communications and media – to deliver clear, consistent messaging that helps staff understand the value and impact of data.

Digital and ICT – to ensure systems and platforms enable secure, ethical and streamlined access to data.

Governance, legal and risk – to embed accountability, privacy, legal and ethical safeguards into data practices.

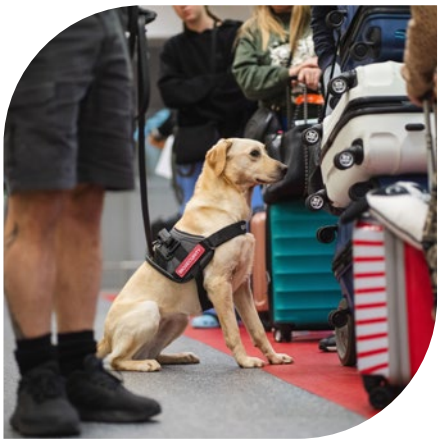
This collaborative approach reflects the One DAFF principle – working as one department to deliver shared outcomes. By partnering across functions, we will ensure the strategy is implemented effectively and sustained through evolving actions that embed data into the department operations.

Evaluating our progress

The implementation of the Enterprise Data Strategy is guided by measurable outcomes, clear accountability and defined delivery timelines – ensuring alignment with departmental goals and continuous uplift in data maturity.

As we deliver on our priorities, we remain adaptive and responsive to a rapidly evolving data landscape. Performance will be actively monitored against our success measures to ensure progress is tracked, challenges are addressed, and opportunities are leveraged.

Evaluation over the strategy period will inform the direction, priorities and approach for the next iteration of the data strategy in 2028 – ensuring future efforts build on achievements and remain aligned with the department's evolving goals.



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