



Australian Government
Australian Centre for
International Agricultural Research

ACIAR Data Strategy

Revision Number: V1.0
Owner: Chief Data Officer
Implementation date: July 2026
Approver: Chief Executive Officer

July
2026

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Executive Summary

This Data Strategy sets a clear direction for ACIAR to manage data as a strategic asset and use it to create measurable business value. It supports better decisions, stronger governance, reliable reporting, efficient operations and greater confidence in information used across research, finance, procurement, program management, corporate reporting, outreach and digital services.

The strategy supports ACIAR's mission to improve agricultural productivity and sustainability through international research partnerships. It brings together governance, research data management, enterprise architecture, analytics, responsible AI and staff capability into a practical roadmap that can be delivered, measured and refined over time.



1. Definition

A data strategy is an organisation-wide plan for how data is collected, governed, protected, shared, analysed and used. For ACIAR, it explains how data will be turned into trusted evidence, practical insight, better services, improved efficiency and stronger accountability.

In simple terms, the strategy helps ACIAR understand what data it has, from where it comes, who is responsible for it, how reliable it is, how it can be used and how it supports better decisions and outcomes.

2. Outcomes

The expected outcomes of the ACIAR Data Strategy are:

- Clear and consistent data ownership, stewardship and accountability across business areas.
- Reliable, high-quality data that supports decision-making, reporting, assurance and performance monitoring.
- Improved visibility of ACIAR's research portfolio, financial position, procurement activities, project performance and organisational risks.
- More efficient reporting and analytics through standardised data definitions, governed data models and reusable dashboards.
- Better integration between business systems, data platforms, Power BI reporting, spreadsheets and operational workflows.
- Stronger compliance with privacy, security, records, public sector and ethical data obligations.
- Increased staff confidence and capability in using data responsibly and effectively.
- A clear pathway for using analytics, automation, AI and decision-support tools safely and productively.

3. Data Strategy Framework

The ACIAR Data Strategy Framework is organised around seven connected pillars (see table on page 5). These pillars explain what needs to be in place for data to be trusted, easy to find, safe to use and clearly linked to business value.

Future state

ACIAR's future data environment will be **SMART: Secure, Measurable, Accessible, Reliable and Trusted**. Priority enterprise, portfolio and research data will have clear owners, agreed definitions, quality controls and appropriate access arrangements. Reporting will rely less on manual effort and more on reusable datasets, governed dashboards and source-to-report traceability.

SMART means data is **Secure** through appropriate privacy, security and sensitivity controls; **Measurable** through clear KPIs, quality rules and benefits tracking; **Accessible** to authorised users through reusable datasets, reports and dashboards; **Reliable** because definitions, lineage and quality are understood; and **Trusted** because data is governed, ethically used and aligned with public sector and partner expectations.

SMART Data Environment

ACIAR's future state for trusted data and reporting



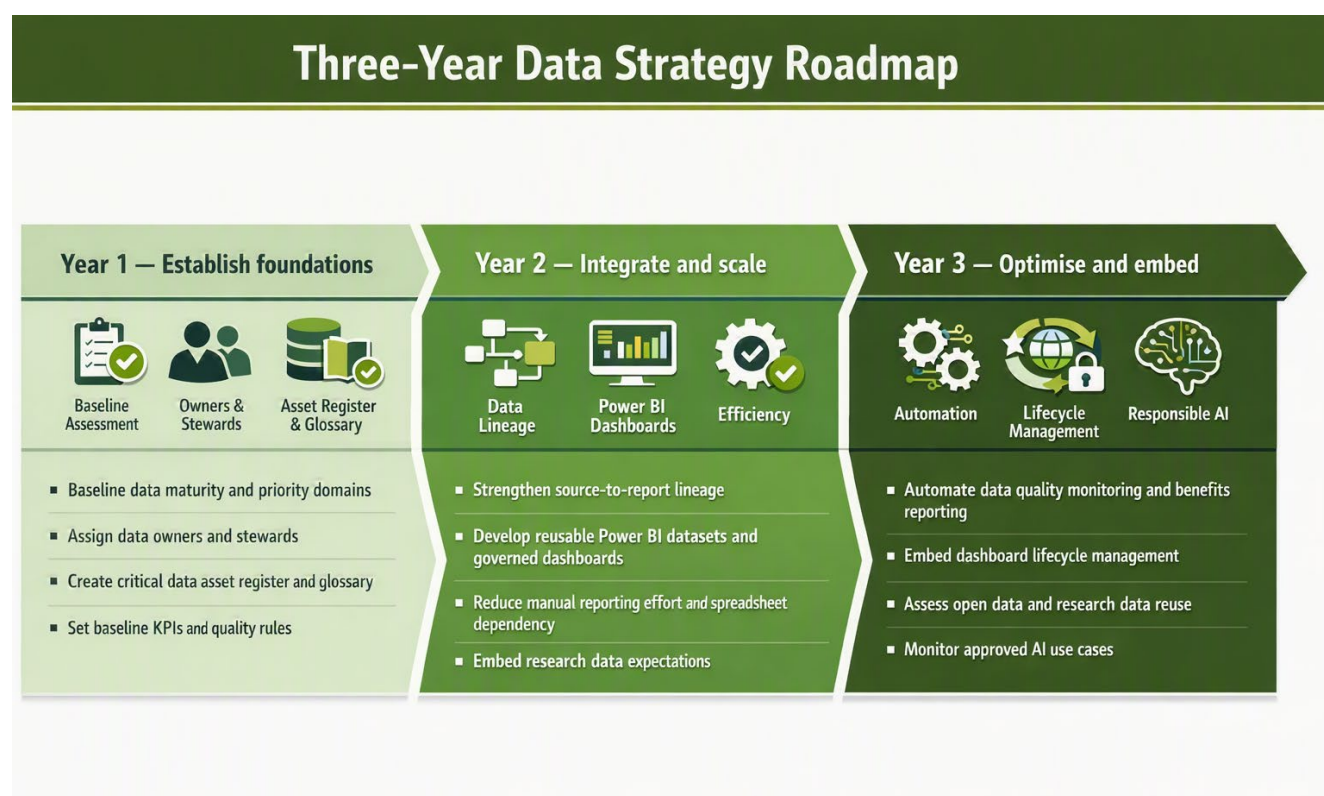
Clear ownership • Agreed definitions • Quality controls • Appropriate access

Pillar	Purpose	Business value
Strategy and value alignment	Link data initiatives to ACIAR priorities, program outcomes, reporting needs and operational improvement.	Ensures data work is focused on measurable business benefit.
Data governance	Define decision rights, ownership, policies, standards and escalation pathways.	Creates accountability and trust in data use.
Data quality and standards	Improve accuracy, completeness, consistency, timeliness and validity of critical data.	Reduces rework, manual checking, reporting errors and inconsistent decisions.
Data architecture and integration	Design sustainable data flows between core systems, reporting platforms, spreadsheets and analytical tools.	Improves efficiency, reduces duplication and supports scalable reporting.
Analytics and insight	Provide dashboards, performance measures, forecasting, trend analysis and decision-support outputs.	Turns data into insight for executives, program teams, finance, procurement and operations.
Privacy, security and ethics	Protect sensitive information and ensure lawful, ethical and responsible use of data.	Maintains public trust and reduces compliance and reputational risk.

Pillar	Purpose	Business value
Capability and culture	Build staff confidence, data literacy, stewardship practices and responsible use of analytics and AI.	Enables sustainable adoption and embeds data-driven ways of working.

4. Strategic Roadmap

The roadmap provides a staged three-year path for implementation. It starts by establishing the foundations for trusted data, then scales integration and reporting improvements, before embedding mature analytics, research data practices and responsible AI into everyday decision-making.



5. ACIAR Data Assets and Use

ACIAR's data assets span enterprise operations, research portfolio management and partner-generated research activity. Managing these assets well is essential to improving decision-making, strengthening accountability, reducing manual effort and supporting research-for-development outcomes.

Data asset scope

The strategy should recognise three connected groups of data assets: enterprise data used to run the organisation; portfolio data used to understand investments, countries, partners, risks, finances and outcomes; and research data generated through commissioned research, country partnerships and collaborating institutions.

How data creates value

These data assets create value when they are trusted, connected and reusable. They help ACIAR monitor delivery, assess performance, understand research activity across countries and regions, identify risks, share evidence with partners and government and support stronger learning from investments over time.

Responsible data use

Data use should be purposeful, proportionate and aligned with ACIAR's public-good mandate. This includes safe sharing with research institutions and government partners, appropriate reuse of research data, careful handling of sensitive or country partner data and transparency about how data informs decisions, reporting and research outcomes.

The practical use cases below show how these data assets can be applied across both enterprise and portfolio operations and research data collaboration.

6. Common Use Case Areas

ACIAR's data use cases should reflect both its internal operating environment and its role as an international research-for-development agency. The strategy should therefore prioritise practical use cases across enterprise, portfolio and research data.

Enterprise and portfolio data use cases

- **Portfolio and program performance:** integrated views of projects, programs, countries, regions, milestones, budgets, commitments, risks, outcomes and delivery status.
- **Executive reporting and decision support:** trusted dashboards and briefing products that provide consistent measures for prioritisation, performance review and governance meetings.
- **Finance and budget management:** improved visibility of actuals, forecasts, variances, appropriation allocation, research payments and funding commitments.
- **Procurement and workflow monitoring:** reporting on procurement milestones, workflow status, turnaround times, bottlenecks and compliance obligations.
- **Data quality and validation:** automated checks, exception reports, reconciliation processes and source-to-report traceability.
- **Master and reference data:** consistent definitions for programs, countries, regions, institutions, project types, activity classes, status values and reporting hierarchies.
- **AI and automation readiness:** well-governed data that can safely support Copilot, automation, advanced analytics and future AI use cases.

Research data and collaboration use cases

- **Research impact and outcomes:** stronger data foundations for assessing outputs, outcomes, adoption, partnerships, capacity building and long-term impact.
- **Partner-generated research data:** consistent expectations for metadata, stewardship, quality, retention and appropriate reuse of data generated through commissioned research and country partnerships.
- **Country and regional evidence:** improved visibility of research activity, evidence gaps, outcomes and lessons across countries, regions, commodities and partner institutions.
- **Data sharing with research institutions:** clearer pathways for sharing data with universities, research organisations, governments and multilateral partners under agreed access, attribution and confidentiality arrangements.
- **Open data and reuse opportunities:** identification of datasets that can support transparency, scientific reuse, policy learning and public benefit where sharing is appropriate.

- **Ethics, consent and sensitive data:** practical controls for consent, permitted use, sensitive data handling, culturally appropriate use and alignment with partner agreements.

7. Adoption, monitoring and evaluation

The strategy will succeed when adoption is actively supported, progress is monitored and value is evaluated through clear measures. ACIAR will track whether data practices are being embedded into everyday work, whether priority initiatives are delivering intended benefits and whether evidence from monitoring is being used to refine the roadmap over time. Key adoption, monitoring and evaluation focus areas are:

- **Adoption ownership:** senior leaders and business owners actively champion adoption, set expectations for use and remove barriers to sustained change.
- **Business readiness:** business areas confirm readiness to adopt new data standards, reports, dashboards, stewardship practices and decision-support processes.
- **Adoption measures:** uptake is monitored through measures such as active dashboard use, reduced spreadsheet dependency, completed stewardship actions, training participation and compliance with approved definitions.
- **Performance monitoring:** priority initiatives are monitored against agreed milestones, risks, benefits, data quality improvements and business outcomes.
- **Data quality monitoring:** critical data elements, quality rules, exception reports and remediation actions are reviewed regularly to confirm improvements are sustained.
- **Evaluation of value:** benefits are evaluated through evidence such as reduced manual effort, faster reporting cycles, improved decision confidence, fewer data issues and stronger assurance outcomes.
- **Feedback and learning:** user feedback, issue trends, lessons learned and governance reviews are used to improve guidance, training, dashboards and delivery priorities.
- **Capability uplift:** staff are supported with targeted communication, training, practical guidance and reusable resources that make adoption easier and more consistent.
- **Continuous improvement:** monitoring and evaluation findings are reported through governance forums and used to adjust the roadmap, refresh priorities and maintain momentum.

8. Data maturity

ACIAR's data maturity journey should be staged, realistic and focused on business value. The aim is to move from fragmented and manual data practices to consistent, governed, integrated and insight-driven ways of working.

Maturity stage	Description	Focus for ACIAR
Initial	Data is managed locally, definitions vary and reporting relies heavily on manual effort.	Identify priority data domains, key pain points and critical reporting risks.
Managed	Core datasets, owners, reports and quality issues are known and documented.	Define data owners, data stewards, business glossary terms and quality rules.
Standardised	Common standards, definitions and repeatable reporting processes are used across priority areas.	Standardise program, project, finance, procurement, institution, country and outcome data.

Maturity stage	Description	Focus for ACIAR
Integrated	Systems, reporting models and dashboards are connected through governed data flows.	Reduce spreadsheet dependency, strengthen Power BI models and improve source-to-report traceability.
Optimised	Data is actively used for forecasting, decision support, automation, AI readiness and continuous improvement.	Use advanced analytics, alerts, automation and responsible AI to support strategic and operational decisions.

9. APS and Whole-of-Government Alignment

ACIAR's Data Strategy should be viewed as the agency's response to the Australian Government's broader data and digital reform agenda. The Data and Digital Government Strategy sets a 2030 vision for simple, secure and connected public services supported by strong data and digital capability. For ACIAR, this means data should be trusted, protected, reusable, well-governed and used to improve decisions, reporting, research portfolio management, service delivery and organisational performance.

APS expectation	Implication for ACIAR	Strategy response
Manage data as a valuable asset	ACIAR needs clear visibility of priority datasets, ownership, value, risks and reuse opportunities.	Establish a critical data asset register, assign data owners and stewards and prioritise data domains linked to business outcomes.
Grow APS data maturity	ACIAR should measure current capability and track improvement over time using a consistent maturity approach.	Undertake a baseline maturity assessment and maintain a staged maturity roadmap with measurable actions.
Strengthen governance and accountability	Data decisions should be transparent, consistent and supported by clear roles and escalation pathways.	Create a data governance forum and publish standards for data definitions, quality, access and reporting.
Improve secure and responsible data use	Data must be protected and used lawfully, ethically and appropriately, particularly where it is sensitive, personal, partner-related, or research-related.	Embed privacy, security, records, ethics and responsible AI checks into the data lifecycle and reporting process.
Support connected services and evidence-based decisions	Integrated, trusted data should reduce manual reporting and improve the timeliness of insights.	Strengthen data integration, governed Power BI reporting, source-to-report lineage and reusable performance measures.

Important APS reference points include the Data and Digital Government Strategy, its implementation plan, the Australian Government Data Governance Framework, the APS Data Maturity Assessment Tool, the Data Availability and Transparency Act 2022, the DATA Scheme and National Archives of Australia information management guidance.

10. Data Governance

Data governance is the way ACIAR makes clear decisions about data. It defines who owns data, who can approve changes, who manages quality and access and how data risks are identified and resolved.

Governance principles

- **Data is a strategic asset:** data should be managed with the same discipline as other organisational assets.
- **Business areas own business meaning:** technology supports data management, but business areas define meaning, quality and appropriate use.
- **Trust is built through transparency:** users should understand definitions, source systems, refresh timing, lineage and limitations.
- **Access is appropriate and secure:** access should be based on business need, role, sensitivity and privacy requirements.
- **Quality is everyone's responsibility:** data creators, stewards, analysts and users all contribute to maintaining quality.
- **Governance should enable value:** governance should reduce confusion, improve confidence and accelerate safe use of data.

Core governance roles

Role	Responsibility
Executive sponsor	Sets direction, endorses priorities and ensures data strategy aligns with organisational objectives.
Data governance forum	Reviews priorities, resolves cross-business issues, monitors risks and approves enterprise standards.
Data owner	Accountable for the meaning, quality, access and appropriate use of data within a business domain.
Data steward	Maintains definitions, quality rules, issue logs, metadata and day-to-day data improvement actions.
Data custodian	Manages technical storage, access controls, integrations, backups and platform operations.
Report owner	Ensures reports and dashboards are fit for purpose, documented, reviewed and aligned with approved definitions.
Data user	Uses data responsibly, follows guidance, reports issues and respects privacy and security obligations.

Priority governance controls

- Maintain a register of critical datasets, reports, dashboards and source systems.

- Create a business glossary for key terms such as project status, program, country, region, commitment, actuals, forecast, milestone, deliverable and outcome.
- Define data quality rules for priority fields and publish exception reports for review.
- Document source-to-report lineage for executive and external reporting products.
- Apply role-based access controls and regular access reviews for sensitive data.
- Classify data based on sensitivity, privacy, security and business criticality.
- Establish a clear process for requesting new reports, data extracts, integrations and changes to governed measures.
- Review high-value dashboards and reports on a regular schedule to confirm accuracy, ownership and continued business need.

Responsible AI governance

AI use should build on the governance controls above. This means approved AI activity should have a clear purpose, accountable owner, suitable data inputs, human oversight and periodic review.

- Maintain a register of approved AI use cases, including purpose, owner, data inputs, risk rating and review date.
- Require human review before AI-supported outputs inform decisions, reporting, partner engagement, or external communication.
- Protect personal, sensitive, partner, commercial and culturally sensitive information from inappropriate AI use.

For more information, please refer to *ACIAR's Responsible Use of AI Policy*.

11. Portfolio Agency Alignment: DFAT and International Development Context

As an agency within the foreign affairs, trade and development portfolio, ACIAR should ensure its data strategy supports DFAT portfolio priorities, development effectiveness, transparency, risk management, performance evidence and portfolio reporting. This includes aligning definitions, reporting practices, safeguards and data-sharing approaches where ACIAR information contributes to portfolio-level decisions.

- **Portfolio reporting alignment:** define common measures and reporting structures so ACIAR can provide consistent portfolio-level information on programs, countries, partnerships, expenditure, risks, outcomes and impact.
- **Development and research evidence:** strengthen data capture on research outputs, adoption, partnerships, capacity building, gender equality, inclusion, climate resilience and sustainable agriculture outcomes.
- **Interoperability:** design data models and reporting processes that can support DFAT portfolio needs without creating excessive manual work or duplicate reporting.
- **Risk and assurance:** improve traceability between project data, financial data, procurement data, governance decisions and external reporting obligations.
- **Transparency and accountability:** maintain clear records, data lineage and evidence for reporting to government, Parliament, partners and the public.
- **Responsible data sharing:** apply safe sharing principles when research, partner, country, institutional, or personal data is shared across portfolio or whole-of-government channels.

ACIAR should maintain regular engagement with DFAT portfolio stakeholders to confirm reporting needs, align key definitions where appropriate and identify opportunities for shared data standards, dashboard improvements, data quality uplift and portfolio-level analytics.

12. Best Practice Agency Examples

ACIAR can draw on practical lessons from Australian Government agencies and central data policy bodies. These examples provide useful guidance on governance, maturity, information management, safe data sharing and digital transformation.

Agency or body	Relevant practice	Application for ACIAR
Digital Transformation Agency and Department of Finance	Whole-of-government Data and Digital Government Strategy, implementation planning, APS maturity uplift and data and digital foundations.	Use the APS 2030 direction as the anchor for ACIAR's roadmap, investment priorities and maturity measures.
Department of Finance	Australian Government Data Governance Framework and APS Data Maturity Assessment guidance.	Adopt a practical governance checklist, assess maturity and use common APS language for ownership, stewardship, quality, privacy and utilisation.
Office of the National Data Commissioner	DATA Scheme, Dataplace, Australian Government Data Catalogue and safe data sharing practices.	Use safe data sharing principles when ACIAR shares data for research, policy, portfolio reporting, or public benefit purposes.
National Archives of Australia	Information and data governance, records management, information asset stewardship and public record trust obligations.	Ensure data assets, reports, dashboards and decision records are managed as information assets with retention, accessibility, integrity and accountability controls.
DFAT portfolio	Foreign affairs, trade and development reporting context, portfolio assurance, transparency and development effectiveness.	Align ACIAR data definitions, portfolio reporting, research evidence, country and program reporting and assurance practices with relevant portfolio expectations.

13. References

The following sources provide useful reference material for APS alignment, data governance, maturity, information management, safe data sharing, legislation and portfolio context.

- Data and Digital Government Strategy — Digital Transformation Agency and Department of Finance: <https://www.dataanddigital.gov.au/strategy>

- Data and Digital Government Strategy — Digital Transformation Agency overview: <https://www.dta.gov.au/our-initiatives/data-and-digital-government-strategy>
- Australian Government Data Governance Framework — Department of Finance: <https://www.finance.gov.au/sites/default/files/2025-09/Data-Governance-Framework.pdf>
- APS Data Maturity Assessment and Data Maturity Report — Department of Finance: https://www.finance.gov.au/sites/default/files/2025-03/2024_Data-Maturity-Report.pdf
- DATA Scheme — Office of the National Data Commissioner: <https://www.datacommissioner.gov.au/data-scheme>
- Data Availability and Transparency Act 2022 — Federal Register of Legislation: <https://www.legislation.gov.au/C2022A00011/latest>
- National Archives of Australia information management guidance: <https://www.naa.gov.au/information-management>
- National Archives of Australia Information and Data Governance Framework: <https://www.naa.gov.au/about-us/who-we-are/accountability-and-reporting/information-and-data-governance-framework>
- DFAT website and portfolio context: <https://www.dfat.gov.au/>