Australian Government

Department of Education

DATA STRATEGY
2023–2025

MESSAGE FROM THE SECRETARY

Our department contributes to the economic prosperity and social wellbeing of all Australians by creating opportunities and driving better outcomes through access to quality education and learning. Evidence-based policy remains a key element in building an education system that helps all Australians achieve great educational and life outcomes, and that supports a diverse and dynamic economy.

Our Data Strategy supports us to improve the value of our data across the department, through awareness of the data we have, continuously strengthening our staff capability and technical know-how, establishing excellent data governance and a desire to safely and lawfully share our data while maintaining the trust of our stakeholders. We want to embed a culture of curiosity for data and evidence in developing policy, doing research, managing programs, and delivering our services, while always ensuring our data is used safely and stored securely.

In the 2023-2025 Data Strategy, we are building on strong foundations to take advantage of cutting-edge analysis that will allow us to harness the value and power of our data to achieve our policy and program objectives. Our department has a wealth of data and knowledge at our disposal, and our Data Strategy takes a holistic view on how we can most effectively use this information to shape the outcomes that are meaningful for Australians.

To make better use of our data, the Data Strategy includes a new focus area on analytics and visualisation. We will maximise the value of our data assets though analytics and visualise our findings to communicate key insights.

Everyone has a responsibility to understand the important role data plays in our work and I encourage all staff to familiarise themselves with our Data Strategy, and the broader data reform agenda. We will continue to work closely with the rest of the APS to progress the agenda through the Deputy Secretaries Data Group, the Data Champions Network and the Graduate Data Network.

We will advance our key data projects with our partner agencies such as the Australian Bureau of Statistics, the Australian Public Service Commission, the Department of Social Services, Services Australia, and the Australian Tax Office.

I would like to thank everyone who contributed to the ongoing development of our Data Strategy and improving our data literacy and culture. We are well positioned to take advantage of our data to deliver forward-thinking solutions for Australia, and I look forward to working with you all towards this goal.

Dr Michele Bruniges AM

PURPOSE

The Department of Education Data Strategy sets the strategic direction for the department's data capability, analysis, sharing, release and development. It aligns with the Australian Data Strategy and the Australian Government reform agenda for the APS. It supports us to create and harness data for better policy development and program management, improves our approach to data sharing and management, and enhances our capability to use cutting edge data analysis techniques and tools. The Data Strategy supports the use of data for better decision-making, while reflecting the need to maintain public trust in how we protect the privacy of individuals.

OUR OBJECTIVES

We will **build** the capability of all staff to use and understand data.

We will **recognise** ourselves as data people.

We will **emphasise** the importance of leadership in our data culture.

We will **improve** the capture, management and quality of our data to ensure trust in our use of data is maintained.

We will **enhance** our data analytics, data science and data visualisation capabilities.

We will **ensure** our data is secure and access to tools and infrastructure is maintained.

We will **maximise** the release, sharing and use of our data in a safe, legal and ethical manner.

VISION STATEMENT

We will optimise the use of our data and evidence to support Australians to experience the wellbeing and economic benefits offered by quality education. We will do this by building on and lifting up our data capability, ensuring our data is secure and well governed, and engaging with cutting edge data, infrastructure, tools and techniques.

STRATEGIC OVERSIGHT

The department has established a strengthened central data capability, led by the Chief Data Officer, supported by the Analysis, Data and Measurement Branch, and championed by the First Assistant Secretary, Strategy, Data and Measurement Division.

The department's data priorities focus on uplifting the department's data capabilities, to support policy development and program management.

The department employs a modified hub and spoke model for data activities.

The Analysis, Data and Measurement Branch promotes the effective and consistent use of data across the department, acting as a centre of excellence for data management, data integration, data sharing, data analysis, data visualisation and education measurement. The Analysis, Data and Measurement Branch provides advice and supports the department to undertake a wide range of data activities.

Individual data teams with specialist data knowledge and skills continue to collect, manage and analyse data, drawing on Analysis, Data and Measurement Branch capability as required. The Analysis, Data and Measurement Branch acts as a conduit to connect staff to the relevant experts across the department and the APS.

The Data Working Group is a collaborative forum to agree on approaches to better use data to address policy and program delivery issues, test ideas, take a whole-of-department and whole-of-government view of data management and analysis, share information and foster collaboration on key initiatives. It also guides the desired future state for data capability in the department, shaped by strategic policy issues and challenges.
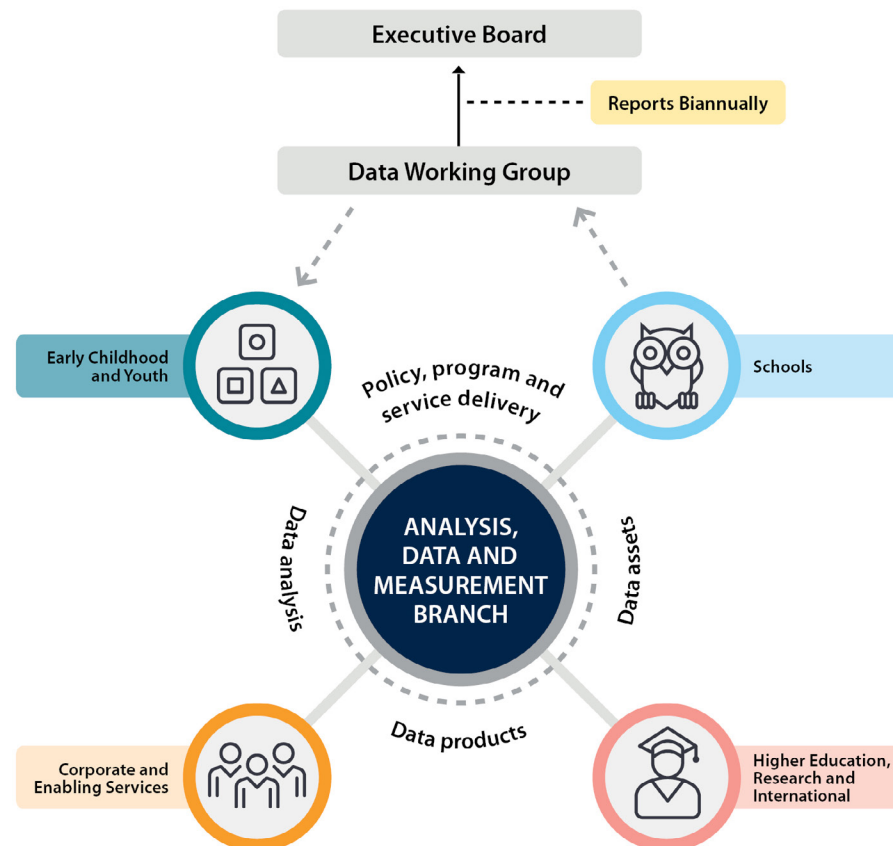
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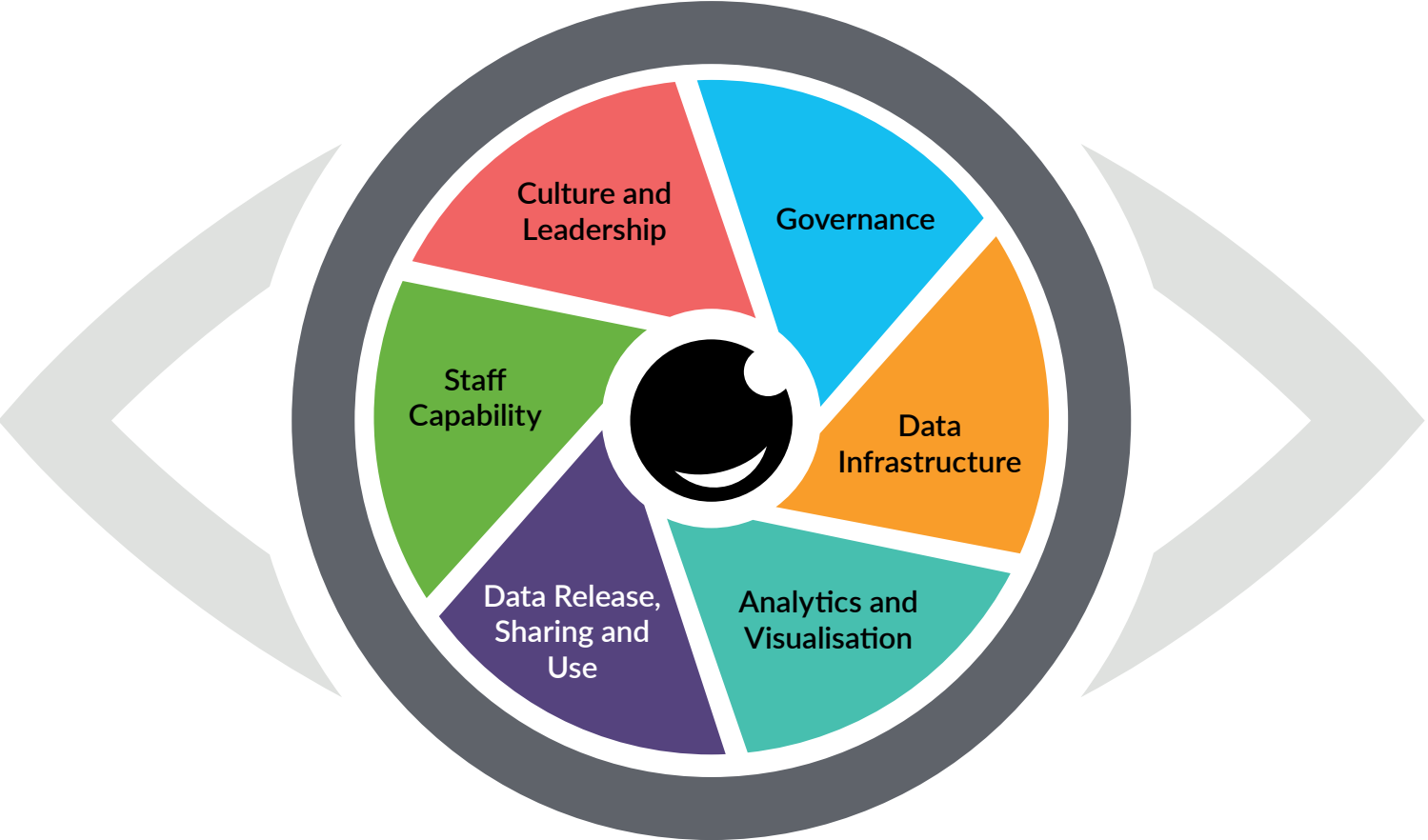
CULTURE AND LEADERSHIP

We will recognise ourselves as data people.

We will emphasise the importance of leadership in our data culture.

AIMS

- The strategic value of the department's data assets is enhanced through **strong, effective leadership**.

- Good use of data is recognised as integral to all our key functions and **all staff see themselves as data people.**

- **Collaboration on data issues is embedded** in the way we do business.

EDUCATION'S FUTURE STATE

- We use our data as a reliable source of evidence to guide decision-making, and act on the insights.

- We regard our data as an important and tangible asset.

- All members of the Senior Executive Service are aware of their accountabilities for data and build data capability in their teams.

- Effective data use is appropriately resourced, widely promoted and clearly communicated.

- All staff are aware of the importance of the context for effective data analysis and use, and data risks are elevated to senior staff.

- Our data is easily accessible and re-useable, allowing more time to explore and learn new insights.

- We actively collaborate on data across the department, with other APS agencies, with our portfolio bodies, with other entities and with State/Terrirories.

TAKING ACTION: IMPLEMENTATION PRIORITIES

Delivery in 2023	*Delivery in 2024–2025*	*Ongoing Activities*
- Implement APS SES Accountabilities for Data in the department - Hold the annual Education Data Week to showcase data reforms and initiatives - Pilot projects across the department to improve data storage, processing, analysis and governance	- Build network of data stewards/ senior data stewards to share information about data - Continue piloting projects across the department to improve data storage, processing, analysis and governance	- Provide a data support service to assist with data queries - Provide staff with regular updates on the data agenda and showcase examples of high-value data use - Use the Data Analyst Network to strengthen collaboration, knowledge and resource sharing between data and analytical staff

STAFF CAPABILITY

We will build the capability of all staff to use and understand data.

AIMS

- Staff capability is grown to **improve the ability to use, manage, interpret, and analyse data** to inform decisions.
- **Data skills are embedded as a core requirement** for all roles and tailored data capability development opportunities are available.

EDUCATION'S FUTURE STATE

- All staff see themselves as data users and are actively building their data capability.
- We recruit, develop and retain the staff required to meet the department's needs.
- We promote increased self-service through data products developed to address standard or low complexity data requests.
- Key departmental data staff share their expertise.
- We contribute to APS Data Profession activities and other whole of government initiatives and benefit from the outcomes.

TAKING ACTION: IMPLEMENTATION PRIORITIES

Delivery in 2023	*Delivery in 2024–2025*	*Ongoing Activities*
■ Deliver the Data Workforce Plan for recruiting, developing, and retaining specialist data staff ■ Temporary recruitment register for data roles ■ Develop data steward training to build awareness of responsibilities and scope of delegation	■ Investigate potential for Data Hubs in cities other than Canberra ■ Pilot Data Hub in one location ■ Pilot data internships with ANU ■ Undertake an analysis and develop a plan to manage key person data risks across the department	■ Engage with APS Data Professional Stream initiatives ■ Deliver the data literacy learning program to raise staff data literacy levels ■ Engage with the Data Profession Member Community Platform ■ Coordinate data recruitment ■ Organise paper bag sessions/ informal training opportunities to share knowledge

GOVERNANCE

We will improve the capture, management and quality of our data to ensure trust in our use of data is maintained.

AIMS

- **Responsibilities and accountabilities for data are clearly understood** at all levels.

- **Data is collected, stored and used safely and ethically**, within all applicable legislative requirements.

EDUCATION'S FUTURE STATE

- All staff have a clear understanding of their roles and associated data responsibilities.

- Foundational elements for good data management, proportionate to risk, are developed, embedded and used.

- Staff understand privacy and ethics issues relating to data, including the appropriate use of data relating to Indigenous Australians and people with disability.

- We maintain the data asset register, build metadata holdings and monitor the quality of our data assets.

- We establish and maintain public trust in our use of data.

- We participate in whole of government initiatives to improve governance of data relating to Indigenous Australians and people with disability.

TAKING ACTION: IMPLEMENTATION PRIORITIES

Delivery in 2023	*Delivery in 2024–2025*	*Ongoing Activities*
■ Finalise and pilot the Data, Digital and AI Ethics Framework ■ Develop a Disability Data Improvement Plan ■ Update the Data Stewardship Manual ■ Develop a Data Management Framework ■ Develop a Data Quality Framework	■ Develop a strategic plan for metadata in the department ■ Participate in initiatives to improve the governance of Indigenous Data	■ Conduct regular Data Working Group meetings as the key mechanism for setting and driving the data agenda ■ Conduct regular updates and improvements to the Data Asset Register ■ Support a metadata register to enable data areas to create and maintain accurate and reliable metadata

ANALYTICS AND VISUALISATION

We will enhance our data analytics, data science and data visualisation capabilities.

AIMS

- We use fit-for-purpose analytics techniques to **maximise the value of our data assets** and provide timely insights to decision makers.

- Data integration, geospatial analysis and **visualisation are used to enrich** available data and enhance insights.

- Maintain an **effective and efficient data environment** that supports and enables new and existing analytics tools.

EDUCATION'S FUTURE STATE

- Policy makers understand the stories within our data and get timely answers to their questions.

- We use relevant, well-presented, timely and robust evidence to inform key stakeholders on our policies and programs.

- We use our analytics capability to enable defensible, efficient and effective decision making for the benefit of individuals and the community.

- We measure the success of our programs through well-defined, robust key performance indicators.

- Data visualisation and geospatial capability is easily accessible, well-coordinated and we engage with whole of government initiatives.

- We have access to high-quality, integrated data through whole of government integration activities and the capability to perform in-house data integration.

- We deliver efficiencies through automation and reuse of existing products.

- We invest in the capabilities of our data practitioners and develop career pathways that recognise their value.

TAKING ACTION: IMPLEMENTATION PRIORITIES

Delivery in 2023	*Delivery in 2024–2025*	*Ongoing Activities*
■ Complete Phase 1 of the ESENDA program ■ Review analytics and visualisation tools to ensure they meet analysts' current and future needs ■ Pilot improved data visualisation with the early childhood workforce dashboards ■ Develop a departmental template for graphs	■ Stocktake of data at your desk and future workplan ■ Deliver ESENDA Phase 2 ■ Deliver the agreed data usability improvement priorities for ESENDA ■ Review and consolidate analytics and visualisation training	■ Engage with whole of government geospatial initiatives including the Common Joint Operating Picture and the Digital Atlas ■ Contribute data to MADIP and BLADE to support whole-of-government data sharing ■ Progress major analytics projects

DATA RELEASE, SHARING AND USE

We will maximise the release, sharing and use of our data in a safe, legal and ethical manner.

AIMS

- Data is curated and **shared externally for public benefit** purposes where safe, legal and ethical to do so.

- Staff have ready **access to the data they need** to inform and support their work.

EDUCATION'S FUTURE STATE

- We release and share high-value departmental data in a safe, legal, accessible and transparent manner.
- We safely reuse our rich data assets where possible.
- Our key data assets are made available for safe internal use and are easily accessed through a central portal.
- We can safely, legally, and ethically access new data sources to meet our business needs.
- We have well-established, effective processes for de identifying and confidentialising data for public release.
- We have the capability to safely share our data outside the department, and receive data from other agencies.

TAKING ACTION: IMPLEMENTATION PRIORITIES

Delivery in 2023	*Delivery in 2024–2025*	*Ongoing Activities*
■ Establish *Data release, sharing and use policy* ■ Establish common data release protocols ■ Establish processes to support the *Data Availability and Transparency* Act. This has two aspects: (i) role as data users (ii) role as data custodians ■ Brief minister on our approach to open data/data releases	■ Use *DataPlace* for whole of government data sharing requests, and adopt ONDC's data request templates ■ Legislative guide for department's data holdings – what legislation is our data protected by	■ Maintain the data release, data matching and data sharing agreement registers ■ Communicate the benefits of safe and effective data sharing and release with the department, including showcasing high value data sharing use cases

DATA INFRASTRUCTURE

We will ensure our data is secure and access to tools and infrastructure is maintained.

AIMS

- Staff have **access to the tools and infrastructure** they need to leverage the maximum value from our data.

- The department has an integrated approach to investment in data infrastructure, that **considers future departmental needs and the re-use of our technical capabilities.**

EDUCATION'S FUTURE STATE

- We work with the Department of Employment and Workplace Relations to ensure data infrastructure supports the departments needs.

- Departmental data infrastructure supports users to deliver insights required to inform policy development and program management.

- We maintain the safety and security of our data holdings though effective data security and access controls, while facilitating authorised access and use.

- The department supports tools for all capabilities, from dashboards through to data integration, machine learning and advanced visualisation.

- Data, IT and business areas collaborate to use technology to drive efficiencies, innovate and retain data integrity, with operationalisation and cost effectiveness in mind.

- We anticipate emerging infrastructure trends and ensure efficient use of resources through reuse of existing data infrastructure.

TAKING ACTION: IMPLEMENTATION PRIORITIES

Delivery in 2023	*Delivery in 2024–2025*	*Ongoing Activities*
- Review current data infrastructure environment	- Develop a forward work plan for data infrastructure - Develop a strategy for improving the approach and architecture of data infrastructure and storage	- Engage with the Project Office to incorporate data infrastructure considerations into project delivery and design - Participate in an integrated approach to departmental investment in data assets and capability - Ensure tools continue to meet the needs of our analysts