Data strategy and governance framework

Summary of our 4-year plan

May 2022

Contents

Chair's foreword

I am pleased to present the Australian Communications and Media Authority's (ACMA) *Data strategy and governance framework*.

Data and analytics is critical in positioning the ACMA for the future – supporting evidence-based regulatory analysis and action, and giving greater insight and understanding of the communications and media sectors.

This document sets out a 4-year roadmap that will enhance the digital, data and analytical capabilities across the agency. This will be supported by improving the discoverability, usability and safety of our core data assets.

The strategy and governance framework not only encompasses data and analytics but also takes a more holistic approach, building our agency-wide enablers such as our people and skills, data governance practices, technologies and platforms to support and enable our data access and utilisation.

We are at an exciting time – where data and analytics can lead us to innovative ways of working that inform, develop and deliver effective, contemporary evidence-based regulation.

I invite you to read our 4-year plan about how the ACMA will transform our data and analytics capabilities to help us achieve our purpose of maximising the economic and social benefits of communications infrastructure, services and content for all Australia.

Nerida O'Loughlin PSM
Chair

Building our data capability

Our data capability contributes to the delivery of our purpose

We use data and analytics to inform our regulatory frameworks and decisions to help us deliver our purpose:

We maximise the economic and social benefits of communications infrastructure, services and content for all Australia.

Our data capability enables us to make informed regulatory decisions

Development of our regulatory frameworks and improved decision making is driven by our data and analytics. As set out in our *Corporate plan 2021–22,* key activity 3:

We use research, data and stakeholder feedback to inform, develop and deliver effective, contemporary risk-based regulation.

Our data capability positions the ACMA for the future

Our data strategy and governance framework supports and aligns with whole-of-government data initiatives.

Our data strategy and governance framework

The ACMA's data strategy and governance framework defines our vision for data and analytics, data management and the roadmap for delivery. It aims to improve the discoverability, usability and safety of the ACMA's data.

The purpose of the data strategy is to outline the ACMA's data and analytics activities aligned to our key agency functions, priorities and strategies. This includes agency-wide enabling initiatives and data action projects that apply analytics to business problems.

Our data governance and management framework supports the delivery of our data strategy through enhancing our core data assets to ensure decision-making is based on high-quality data and well-managed assets.

Our vision for data and analytics

Our vision

Our understanding of the communications and media sectors, and our regulatory decisions, are informed by:

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quality data

effective analytics

evidence-based insights for all Australians.

Objectives

The objectives for achieving our data and analytics vision are:

> to efficiently and effectively **manage and leverage data for strategic, regulatory and operational benefit**

> to **build our people, governance, technology and data capability** to capture, use and share data

> to implement use cases to **practically test and demonstrate the value of improving our data and analytics capability**.

Principles

Our data strategy and governance framework is guided by the following key principles.

Our data is:

Discoverable

We make our data visible and accessible within the ACMA and to the public (as appropriate).

Useable

We use our data to support our decision making and ensure it is fit for purpose.

Safe

We ensure our data is protected and secure.

Supporting our activities and priorities

We will use data and analytics to support the ACMA's key activities and priorities, as set out in our corporate plan.

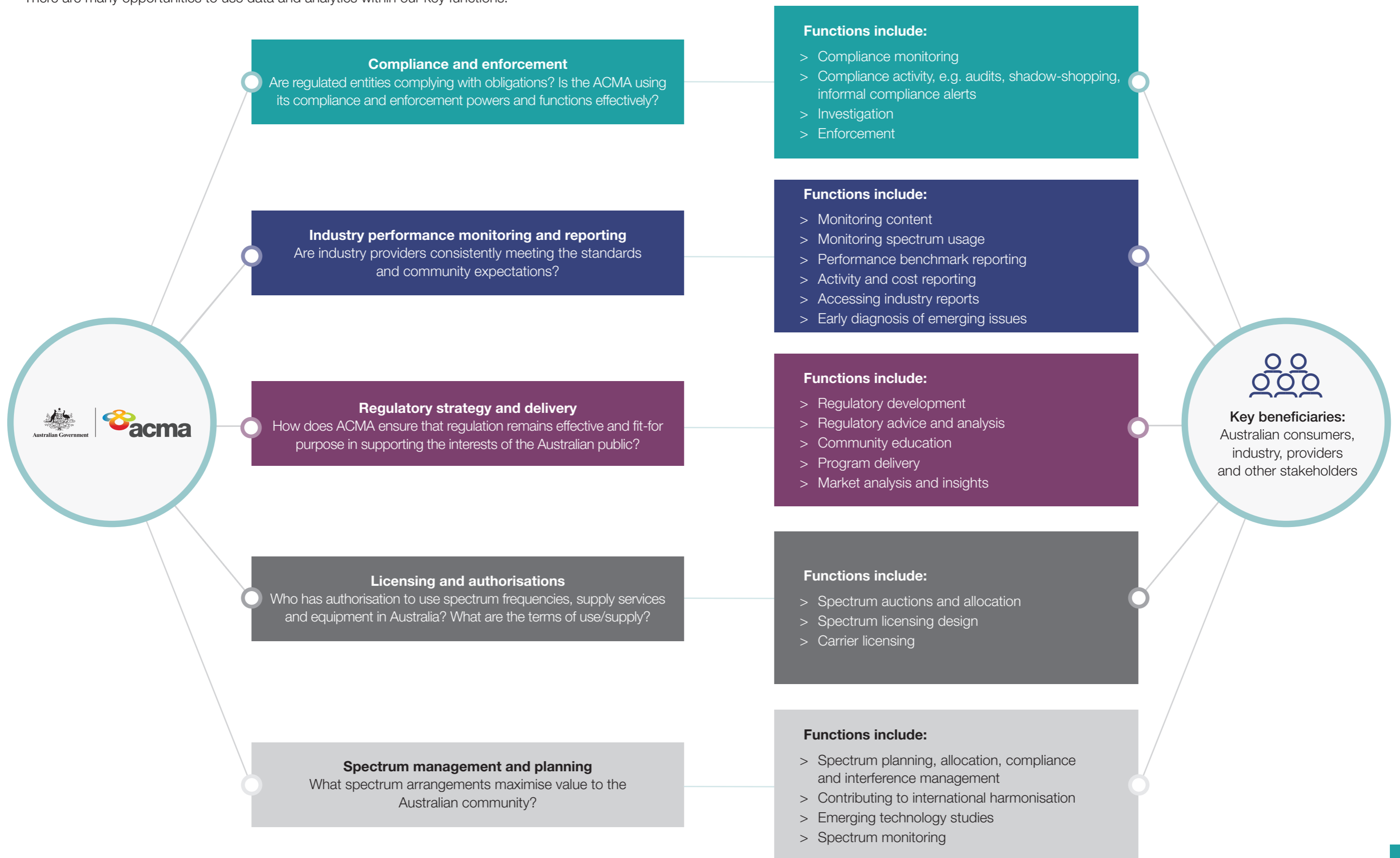| Corporate plan 2021–22	Role of data and analytics
Purpose — We maximise the economic and social benefits of communications infrastructure, services and content for all Australia	Data drives better decision making across the ACMA — **Purpose**
Vision — A connected, informed and entertained Australia	ACMA understanding of the comms and media sectors is informed by data, analytics and insights — **Vision**

	Data helps us to:
Key activities/ priorities* > Support an efficient and reliable communications infrastructure > Build consumer trust in the use of communications content and services > Use research, data and stakeholder feedback to inform, develop and deliver effective, contemporary risk-based regulation > Deliver effective compliance and targeted enforcement action	> make enhanced evidence-based decisions and insights > empower consumers to make informed choices > improve regulatory development > proactively target non-compliance — **Key activities/ priorities**

Corporate plan 2021–22	Role of data and analytics
Context — A rapidly evolving communications and media landscape	Analytics helps us to understand the market and proactively monitor emerging trends and changes — **Context**
Enhancing capability — Continue developing and investing in the critical capabilities of digital and technology services and data	Data capability allows us to improve the availability, usability, integrity and security of our data — **Enhancing capability**

* Includes compliance priorities for 2021–22.
Sources include: ACMA *Corporate plan 2021–22*, ACMA compliance priorities 2021–22.

Opportunities for data and analytics

There are many opportunities to use data and analytics within our key functions.

Compliance and enforcement
Are regulated entities complying with obligations? Is the ACMA using its compliance and enforcement powers and functions effectively?

Functions include:
> Compliance monitoring
> Compliance activity, e.g. audits, shadow-shopping, informal compliance alerts
> Investigation
> Enforcement

Industry performance monitoring and reporting
Are industry providers consistently meeting the standards and community expectations?

Functions include:
> Monitoring content
> Monitoring spectrum usage
> Performance benchmark reporting
> Activity and cost reporting
> Accessing industry reports
> Early diagnosis of emerging issues

Regulatory strategy and delivery
How does ACMA ensure that regulation remains effective and fit-for purpose in supporting the interests of the Australian public?

Functions include:
> Regulatory development
> Regulatory advice and analysis
> Community education
> Program delivery
> Market analysis and insights

Licensing and authorisations
Who has authorisation to use spectrum frequencies, supply services and equipment in Australia? What are the terms of use/supply?

Functions include:
> Spectrum auctions and allocation
> Spectrum licensing design
> Carrier licensing

Spectrum management and planning
What spectrum arrangements maximise value to the Australian community?

Functions include:
> Spectrum planning, allocation, compliance and interference management
> Contributing to international harmonisation
> Emerging technology studies
> Spectrum monitoring

Key beneficiaries:
Australian consumers, industry, providers and other stakeholders

Stages in data and analytics

Our data strategy and governance framework will enable us to shift from basic to more advanced use of data and analytics in high value areas.

	Availability and access	**Management and processing**	**Analytics**	**Reporting**	**Decisions**
Objective	We access the right data at the right time	We manage and manipulate data effectively	Our analysis makes the most out of available data	The results of our analysis supports decision-making	The overall system supports value from decisions made
Our future state	ACMA forms a more timely and complete view of stakeholders and the markets we regulate	Data repositories, with enterprise-wide data curation, governance and quality assurance	Analysis is more proactive, uses innovative techniques and is clearly replicable	Transparent, close to real-time, automated reporting on our performance and stakeholders through using dashboards	ACMA uses data and analytics to support its vision, and shares data for public benefit.

Implementing our vision

We will implement our vision by applying analytics to business problems.

We will establish data action projects and our agency enablers, focusing on our people, governance and technology.
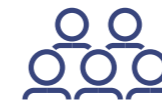
Data action projects

These projects will:

> use data analytics to improve our compliance, regulatory or operational functions

> use an agile approach to deliver improvements within a short time frame

> practically test the people and technology capabilities of the ACMA

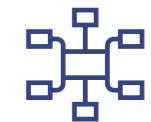> use key success measures to demonstrate their value.

Enabling our agency

We will enable the ACMA to enact its vision through our:

|	People	Governance	Technology
Objective	We will improve staff skills, data literacy and analytical capabilities along with our data culture to support evidence-based decision making.	We will introduce a governance framework to improve the discoverability, usability and safety of ACMA data.	We will review our existing technology and data architecture, to support and enable data access and utilisation.
Key focus areas	> Leadership and decision-making > Training and capabilities, including connecting with the APS Data Professional Stream > Analytics quality assurance > Change management	> Ownership and accountability > Data architecture > Metadata management > Data quality > Privacy, legal and compliance	> Data platforms > Analytical tools
Expected benefits	> Prioritisation of analytics efforts in line with agency needs and objectives > Test and learn culture, sharing insights and learning > Rigorous high quality analysis > Knowledge uplift	> Clearer transparency and accountability of data management and governance > Increased efficiency and robustness in managing data across its lifecycle	> Secure by design, enterprise-ready data platforms > Increased data accessibility and utilisation

Our vision for data and analytics will be implemented over 3 horizons:

Horizon 1 – Foundations
Year 1*

Horizon 2 – Step change
Years 2 to 3
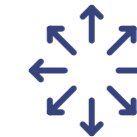
Horizon 3 – Scale, evolve and embed
Year 4+

Actions

Laying the foundations and early wins by:
> delivering initial data action projects
> defining the operating model for analytics
> developing a minimum viable data architecture
> implementing data governance and management for critical data assets
> establishing change management program including people and technology capabilities.

Building a step change by:
> scaling existing data action projects and developing new ones
> implementing data governance and management for important data assets
> continuing to build people and technology capabilities to capture, use and share data.

Embedding and scaling by:
> embedding existing data action projects, continuing to scale and evolve, with new data action projects in development
> initiatives operational across all agency enablers (people, governance, technology)
> coordinating data and information governance.

Benefits

> Improved access to and usability of ACMA data.
> Increased access to specialist expertise and analytics capabilities, and platforms.
> Improved visibility of ACMA activities in compliance, spectrum usage and industry performance.

> Leverage ACMA data as strategic asset for decision making and insights.
> Improved management of ACMA data across its lifecycle.
> Increased analytics capabilities to solve business problems.

> Improved data and analytics practice, with best practices embedded across the agency.
> Improved decision-making, sharing and release of ACMA data.
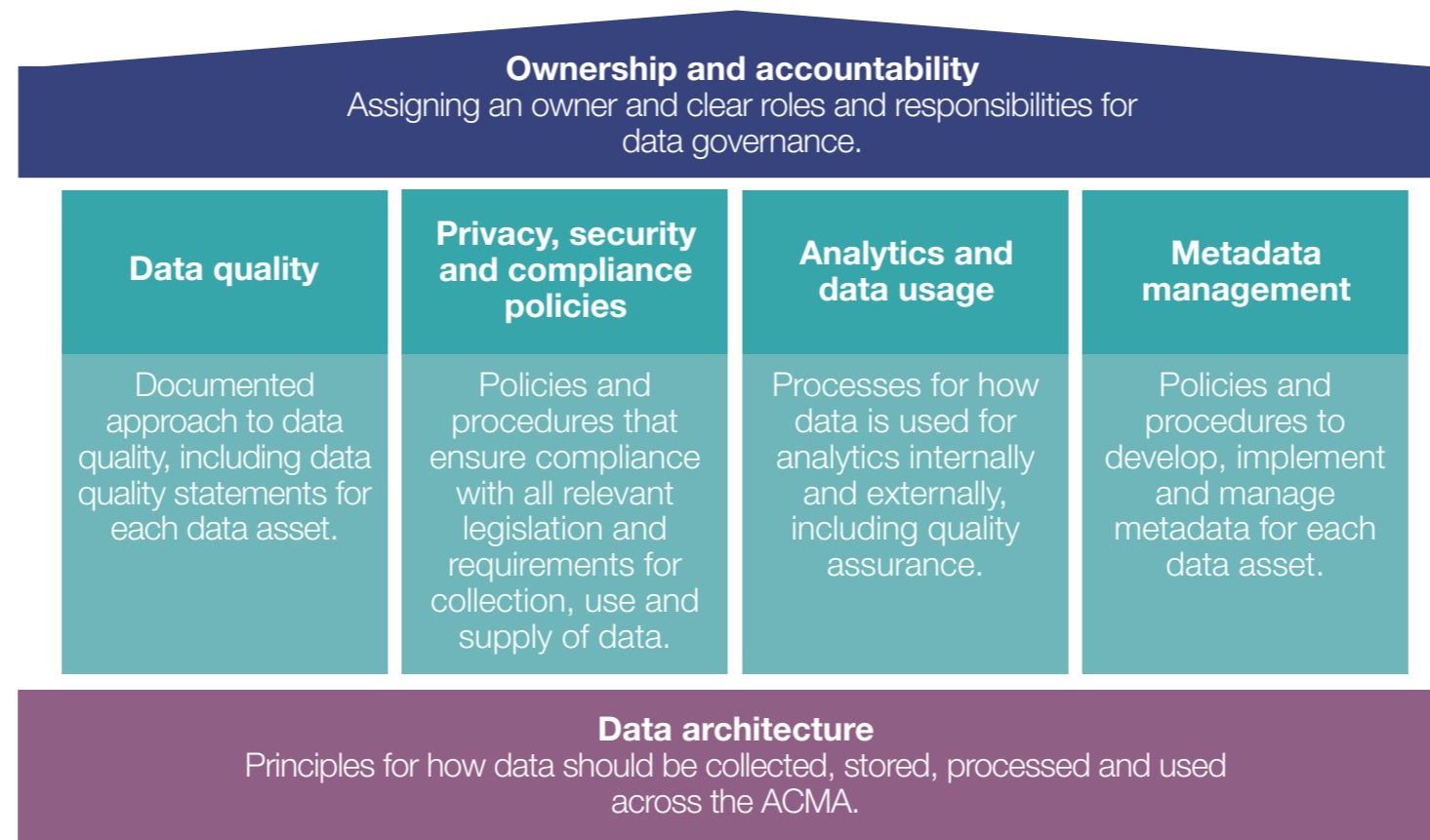
* Horizon 1 activity commenced 2019–20.

Managing our data

The data governance and management framework

Our data governance and management framework ensures that data assets are appropriately managed and trusted, and analysis is well supported.

The purpose of our data governance and management framework is to:

> establish a data governance structure to exercise authority, control and shared decision-making over the management of our core assets

> enhance high value core data assets throughout their lifecycles.

Ownership and accountability
Assigning an owner and clear roles and responsibilities for data governance.

Data quality	**Privacy, security and compliance policies**	**Analytics and data usage**	**Metadata management**
Documented approach to data quality, including data quality statements for each data asset.	Policies and procedures that ensure compliance with all relevant legislation and requirements for collection, use and supply of data.	Processes for how data is used for analytics internally and externally, including quality assurance.	Policies and procedures to develop, implement and manage metadata for each data asset.

Data architecture
Principles for how data should be collected, stored, processed and used across the ACMA.

Goals for our data

We want our data to be:

Discoverable

> it can be easily found

> it's accessible
(as appropriate)

> it can be shared
(as appropriate).

Useable

> it's ready to use

> it's available at the right time

> it's of good quality

> it's reliable.

Safe

> it's protected and secure

> it's disclosed appropriately

> practices adhere to privacy
and legal obligations.

The importance of data governance and management

The framework will ensure data is managed appropriately, according to policies and best practices. It will help ensure the ACMA gets the most value out of its data.

The framework:

Reduces risk

by identifying and providing oversight for how risks should be managed. This includes implementing data and analytics governance committees and privacy, security and compliance policies.

Improves processes

by promoting improvements in data quality, metadata management and use of analytics.

Supports better decision making

by providing reliable and high-quality data.

Building data governance capability

We will:

> identify data stewards and formalise their responsibilities and accountabilities when defining, producing and using ACMA data

> enhance understanding of data governance and management across the agency

> embed fit-for-purpose data management into business processes.

What does success look like for data and analytics?

We will review our progress against key success factors.

	Availability and access	Management and processing	Analytics	Reporting	Decisions
Success factors	> Our people can easily access quality data > Data is available across the ACMA (where appropriate)	> We are trusted managers of data > We can process and link the appropriate data	> Our people can access advanced analytics and visualisation tools and resources > Analytics is of high quality, managed and reviewed	> Authority and senior executives receive accurate, regular reporting > Members of the public and third parties can access high quality and accurate data reports	> Our decisions are optimised with trusted insights > Business decisions are data-driven

		Availability and access	Management and processing	Analytics	Reporting	Decisions
Impacts	**Year 1***	> Data sharing processes and policies are recognised	> Data management and analytical expertise recruited	> Data action projects demonstrate value in terms of insights and efficiencies.	> Data analysis and reporting is improved	> Data literacy is enhanced agency-wide > Data strategy and governance framework implemented
	Year 2	> Data sharing is enhanced	> Data management and analytical expertise and skills are embedded			
	Year 3	> Data maturity and capability is enhanced	> Data governance program is established and implemented	> Data science and analytics culture is created	> Accessibility to data-driven insights is operationalised	
	Year 4					> Data is embedded in business processes and practice

Vision	Our understanding of the communications and media sectors and our regulatory decisions are informed by quality data, effective analytics and evidence based insights for all Australians.

* Assessment commenced 2019–20.