



**Australian Government**  
**Geoscience Australia**

# **Data and Digital Strategy 2028 Summary**



# Contents



Strategy Summary .....	03
Data Context.....	04
Digital Context.....	05
2028 Data and Digital Vision.....	06
Strategic Objectives and Goals.....	07
Principles.....	08
Franchise Support Model.....	09
Maturity Evolution.....	10
Maturity Evaluation.....	11



# Strategy Summary



## Our Vision

*Empowering people to deliver Earth science excellence through our data and digital capability*

### Drivers

Expectations from government, industry, and the community

Capacity and capabilities gaps across the organisation

Rapidly changing science, data and technology landscape

Unsustainable technical diversity and inconsistent management, increasing business and security risks

### Delivery Alignment

**Geoscience Australia Strategy 2028**

**Data and Digital Government Strategy**

**Geoscience Australia Science Strategy 2028**

### Strategic Objectives

**Geoscience Australia's data and digital capability enables high quality science outcomes**

- Simplified operations that maximise human talent
- Digital mindsets, skills and ways of working
- Secure, trusted and reliable solutions
- Products shaped by stakeholder needs
- Clear measures of success

**Geoscience Australia's data is secure, discoverable, accessible and effectively managed**

- Well maintained, structured, linked, shared, and absolutely protected data
- Responsive, resilient and connected data infrastructure ensuring that data is easy for people to find, understand, use and access

**Geoscience Australia's data and digital operating model is sustainable**

- Investment decisions consider the whole lifecycle
- Solutions are funded and managed
- Security is central to decision-making and solution design
- Reusable solutions meet shared needs
- Flexible and fit-for-purpose technology solutions

### Principles



All investment must align with the Strategy, its principles, prioritise high value outcomes, and be consulted and agreed on



Stakeholders determine the value of our products and services



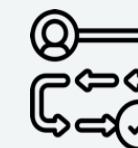
Products will only be built, bought or retained if they can be funded, evaluated and kept secure



Data must be stewarded for the whole of Geoscience Australia, so everyone who needs to use it, can



Specialist science solutions must make a meaningful difference to science outcomes



Geoscience Australia will invest in taking everyone on the transformation journey

### Delivery

A Data and Digital Operating Model will provide a structured approach to delivering the Strategy

Data and Digital operations will be orchestrated through a franchise delivery model

The Strategy will support science innovation by lifting maturity across data and digital capability.

Strategy outcomes and goals will be measured using the Capability Maturity Model Integration Framework

# Data Context



**Data is the heart of what we do at Geoscience Australia and underpins the delivery of science. Data supports critical corporate functions, and is one of our core outputs.**

Geoscience Australia provides critical information to government, industry and the community which supports the economy, safety and sustainability of the nation.

Data must be managed effectively so that anyone who needs to can securely access the data they need, when they need it, and high-quality data and data products are delivered to Geoscience Australia's stakeholders.

Managing data as a national asset is key to ensuring that Geoscience Australia can deliver on our vision and commitments into the future.

To optimise the value of our data, we must:

- Adopt an organisation-wide approach to cataloguing, metadata, search and discovery, storage and backup solutions following FAIR guidelines and industry endorsed data standards
- Manage storage and processing technologies to support the volume and diversity of our data and scientific processes
- Sustainably manage increased data demand through robust data management, forecasting and planning
- Make data available and accessible to support high quality science
- Develop business intelligence capability across science and corporate that helps answer the big questions
- Maximise the interoperability of our data and data services with all internal and external stakeholders, including other government agencies

## Key Areas of Opportunity:

- Data type and sourcing
- Data storage and lifecycle
- Data management and governance



# Digital Context



**Digital challenges us to use new ways of working and technology to deliver more efficient, effective and innovative outcomes.**

Government, industry and community stakeholders are at the core of our product and service delivery. Geoscience Australia will redefine how we engage with these stakeholders and our staff through a Digital focus emphasising customer-centric outcomes.

Digital recognises the potential for new technologies not just to automate what we do, but to transform how we work. Geoscience Australia will enhance science outcomes through new and uplifted digital capabilities. Digital introduces concepts such as human-centered-design, agile work practices and business process redesign to maximise outcomes from investment in technology.

To leverage the possibilities of digital products, tools, services and methods, we must:

- Invest in our people’s capability and capacity
- Empower a culture where change is positively embraced
- Manage contemporary data delivery platforms, products and solutions for both internal and external use that can respond to and integrate with emerging digital capabilities
- Utilise customer analytics to come to grips with our diverse user needs and positions. We will better understand our products and services, why and when they’re being used across our delivery ecosystem

**Key Areas of Opportunity:**

- Digital capability
- Diverse solutions
- Distributed operations
- Service delivery



# 2028 Data and Digital Vision



Empowering people to deliver Earth science excellence through our data and digital capability.

Geoscience Australia's data and digital capability will be fit-for-purpose, secure and sustainable, providing a strong foundation to support its operations. These functions allow Geoscience Australia's people to deliver on its mission and goals and achieve Earth science excellence, deliver high quality outcomes and products to all stakeholders, and innovate for the future.



## FOR OUR STAFF

Staff are empowered to focus on science outcomes through access to the right tools at the right time, opportunities to enhance their capabilities and collaborate with stakeholders, in alignment with the Science Strategy 2028.

Staff benefit from more efficient digital solutions and increased time to value ratio – spending their time on higher value work associated with their core science, ICT, or corporate role.



## FOR OUR ORGANISATION

The Strategy provides a flexible framework with robust decision-making principles and measurable goals to enable Geoscience Australia to make meaningful changes that drive innovation and excellence.

Geoscience Australia has improved its research and analytics capabilities by optimising expenditure, innovating, and playing a leading role in securing Australia's future.



## FOR OUR STAKEHOLDERS

Data and Digital capabilities increase stakeholder value through access to quality and up-to-date information and products informed by their needs.

The Strategy enhances our reputation with stakeholders as an essential and trusted source of geoscientific data and advice.



## FOR GOVERNMENT

The Strategy enables Geoscience Australia to provide faster, more accurate information and advice to government through fit for purpose solutions and up-to-date tools.

Geoscience Australia continues to be the trusted source of information on Australia's Earth sciences for Government decision making.

# Strategic Objectives and Goals

The Strategic Objectives outline how the Strategy vision will be achieved. The Objectives represent what strategic success looks like for Geoscience Australia. The Goals outline smaller, measurable steps towards achieving the Strategic Objectives and are grouped into themes.

## Strategic Objectives

## Benefits to Geoscience Australia

## Goal Themes



**Geoscience Australia's data and digital capability enables high quality science outcomes**

01

- Supported operations that maximise human talent
- Digital mindsets, skills and ways of working
- Secure, trusted and reliable solutions
- Products shaped by stakeholder needs
- Clear measures of success

- Skills and People Capability
- Science Environment
- Responsiveness
- Innovation



**Geoscience Australia's data is secure, discoverable, accessible and effectively managed**

02

- Well maintained, structured, linked, shared and absolutely protected data.
- Responsive, resilient and connected data infrastructure ensuring that data is easy for people to find, understand, use and access

- Data Management
- Data Tooling



**Geoscience Australia's data and digital operating model is sustainable**

03

- Investment decisions consider the whole lifecycle
- Solutions are funded and managed
- Security is central to decision-making and solution design
- Reusable solutions meet shared needs
- Flexible and fit-for-purpose technology solutions

- Data and Digital Governance
- Management of Data and Digital Capability

# Principles



The principles provide Geoscience Australia with guidance and guard rails to support informed, sound decision making. By making decisions in line with these principles, Geoscience Australia will achieve the strategic objectives and deliver on the Strategy vision.

The **Data and Digital Strategy 2028**'s decision-making principles are closely aligned to Geoscience Australia's values and will support the organisation to deliver on its vision.

When applied consistently, the principles will:

- Support Geoscience Australia to make informed decisions
- Enhance Geoscience Australia's value for its stakeholders
- Ensure data and digital assets are managed responsibly

The Principles work together to ensure that decision-making is consistent, with a holistic view of value, impact and cost.



All data and digital investment must align with the Strategy and its principles, prioritise the highest value outcomes for Geoscience Australia, and be made with appropriate consultation and agreement

01



Stakeholders determine the value of Geoscience Australia's products and services

02



Data must be stewarded for the whole of Geoscience Australia, so everyone who needs to use it, can

03



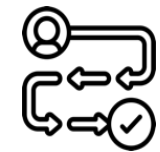
Products will only be built, bought or retained if they can be funded, evaluated and kept secure

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Geoscience Australia will only invest in specialised science solutions where they make a meaningful difference to science outcomes

05



Geoscience Australia will invest in taking everyone on the transformation journey

06

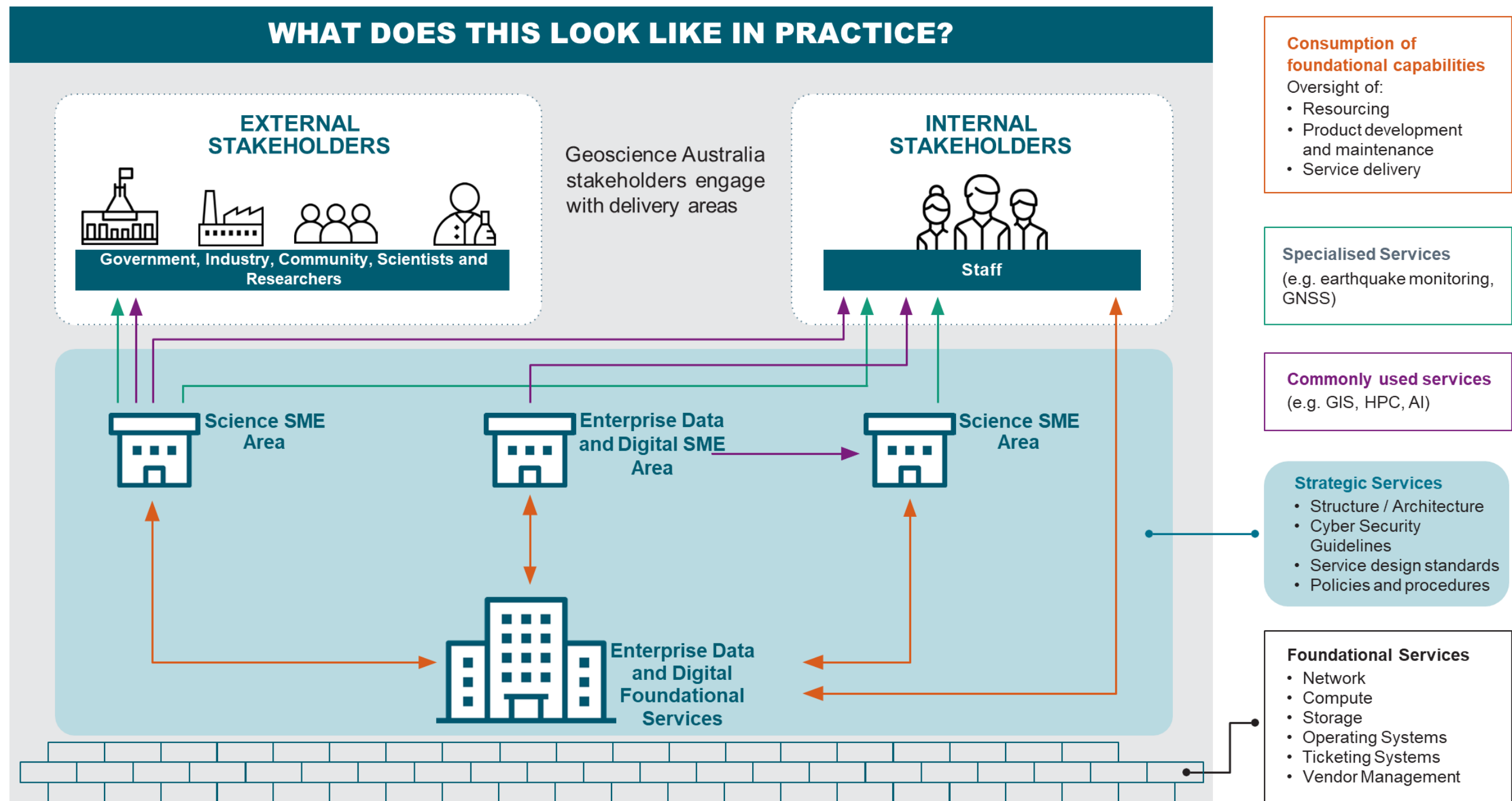


# Franchise Support Model



**An data and digital operating model that orchestrates management and support of solutions under a consistent governance framework provides efficiencies, reduces risk and allows staff to focus on science**

The unique landscape of Geoscience Australia does not fit traditional centralisation models where ICT manage all technology, instead being better suited to a franchise model. This model aims to orchestrate operations, reduce administrative labour and BAU activities, and foster science innovation. The key elements of the franchise support model emphasises a collaborative approach, with data and digital delivery being co-lead, co-delivered and co-governed. Corporate capabilities and other commodity and foundational services will be centrally supported and managed, increasing productivity and reporting capabilities. Specialised science capabilities will be franchised out to specific teams to support and manage.



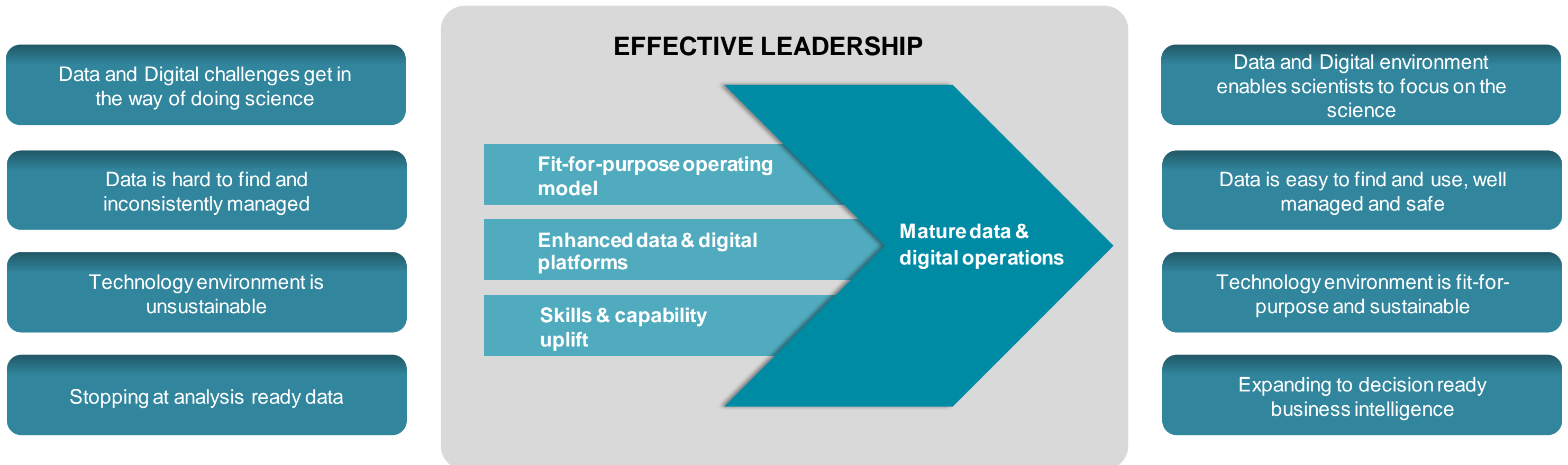
# Maturity Evolution



Geoscience Australia has a long-standing culture of supporting science excellence through effective leadership. This provides a strong foundation to support the changes necessary to achieve the Strategy's vision, where open communication and a commitment to making the difficult decisions are key.

A robust change management program driven by a trusted leadership team is key to supporting our people, setting a clear expectation of how the program will deliver real business and science outcomes, and ensuring meaningful stakeholder engagement and tailored training and support for capability uplift. Emphasising a holistic, people centred approach with open and transparent communication, and appropriate and measurable goals, helps to build a culture that proactively engages with change, and seeks opportunities for innovation to deliver science excellence.

Successful implementation of the Data and Digital Strategy 2028 will be a transformative program that will support Geoscience Australia to deliver Earth science excellence.



# Maturity Evaluation



/// The Data and Digital Strategy 2028 will leverage the CMMI Framework to benchmark current performance and capabilities and identify target interim and end states.

These target states inform the tailored goals and measures that provide a clear, easy to understand approach to achieving the Strategy's vision

Goals will streamline processes, reduce risk, improve consistency and reliability and provide quantifiable check points aligned to key initiatives in the Strategic Roadmaps.

By aligning to the CMMI Framework, process improvements and maturity level advancements are integrated into the strategy implementation process, supporting effective delivery.

The Capability Maturity Model Integration (CMMI) Framework is designed to support organisations to build maturity in capabilities to support reliable environments where products, services and risks are efficient, effective and proactively managed. The CMMI provides Geoscience Australia with a structured approach to assess, benchmark and enhance capabilities across all business areas.

