



Geoscience Australia

CORPORATE PLAN

2021-22 to 2024-25

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Introduction

Chief Executive Officer's foreword

Geoscience Australia is the national public sector geoscience organisation. Our purpose is to be the trusted source of information on Australia's geology and geography for government, industry and community decision making. Our work covers the Australian landmass, marine jurisdiction and territories in Antarctica.

Since 1910, geoscience has played an important role in Australia's prosperity and safety. The nation's first national topographic mapping program was driven by the need to defend Australia's people and develop our regional areas. In later years, systematic mapping of the nation's geology to understand our resource endowment and drive new discoveries has underpinned our successful economy.

We continue to deliver data of enduring value and advice that helps government, industry and the community to address challenges and enhance opportunities facing Australia now and into the future.

This 2021-22 Corporate Plan sets out the work program of the organisation over the next four years, identifying the areas we will impact and how we'll measure our success. This Corporate Plan is designed to propel us to our ten-year targets outlined in our strategic plan, Strategy 2028. I encourage you to look at this strategy to see our vision for the future.

Statement of preparation

As the accountable authority of Geoscience Australia, I am pleased to present our 2021-22 Corporate Plan covering the four-year period to 2024-25, as required under section 35(1)(b) of the *Public Governance*, *Performance and Accountability Act 2013*.

Dr James Johnson Chief Executive Officer

25 August 2021

Strategic Direction

Purpose

Geoscience Australia is the national public sector geoscience organisation. Our purpose is to be the trusted source of information on Australia's geology and geography for government, industry and community decision making, and contribute to a safer, more prosperous and well-informed Australia.

Geoscience Australia supports evidence-based decisions through information, advice and services for a strong economy, resilient society and sustainable environment.

Strategic Priorities and Objectives

Geoscience Australia's work aligns with the Australian Government's Science and Research Priorities and supports global and domestic initiatives. In achieving our purpose, our work impacts six key areas of national interest and is supported by a seventh impact area focused on the organisation's support and enabling functions.

- **Building Australia's resources wealth**—to maximise benefits from our mineral and energy resources, now and into the future
- Ensuring Australia's community safety—to strengthen our resilience to the impact of hazards
- Securing Australia's water resources—to optimise and sustain the use of our water resources
- Managing Australia's marine jurisdictions—to support sustainable use of our marine environment
- Creating a location-enabled Australia—to use detailed and fundamental geographic location information to develop our nation
- **Enabling an informed Australia**—to equip government, industry and community with geoscience data and information to make informed decisions for our nation
- Trusted, sustainable and high performance—to support and share our work globally to ensure Geoscience Australia's value is known, accessible and used.

Strategic Priorities and Performance Criteria

Geoscience Australia's work program is delivered and supported through seven key impact areas. For each area, information is provided on the environmental context, 10-year targets and how we'll measure success against our purpose. The impacts of our work are set out in our strategic plan, Strategy 2028.

Geoscience Australia's performance will be assessed using a number of qualitative and quantitative measures to communicate a comprehensive view of performance that will be presented in the organisation's annual performance statements.

1. Building Australia's resources wealth

Environment

Australia's mineral and energy resources are a major contributor to the nation's wealth, economically and socially. Understanding Australia's available resources is a prerequisite for formulating sound policies for their sustainable development and use.

Australia has significant advantages in the production of resource commodities over other nations. Stimulating exploration investment relies on mapping and characterising Australia's rich and diverse resource endowment, and predicting where additional resources can be found. High quality geoscience information provides the evidence base for private industry to make investment decisions by helping lower the technical risks of exploration. This is especially true for Australia's vast under-explored regions, where new discoveries have the greatest potential to make a material difference to Australia's mineral and energy endowment.

- We will map and understand Australia's energy resources, reversing Australia's increasing dependence on oil imports, and increase domestic gas supplies.
- We will stimulate mineral exploration investment, including critical minerals, to open up new producing provinces with mineral endowment worth over \$100b.
- We will support the establishment of commercial carbon capture and storage and hydrogen industries to ensure Australia meets its greenhouse gas emission reduction targets.
- We will provide geoscience information to support new mineral and energy exploration technologies and drive new discoveries.

Outcomes	Performance Measures	Target				
Outcomes	Performance weasures	2021-2022 2022-2023 2023-2024 2024-202				
	Geoscience Australia's promotional products support	At least five tenements are taken up by industry in areas supported by Geoscience Australia's pre- competitive programs per year covering a total mineral endowment worth at least \$70b				
1.1 Australia continues to be an attractive destination for	industry exploration investment	Australian Identified Mineral Resources and Australian Energy Commodity Resources reports containing the national resource endowment are published annually				
investment in the resources sector	Authoritative information and technical advice on Australia's resource potential and the sector's activities are provided in accordance with Australian Government policy frameworks and within legislative timeframes	Advice informing Environment Protection and Biodiversity Conservation Act 1999 and Foreign Investment Review Board assessments are completed within legislative timeframes in 95 per cent of cases				
1.2 Pre-competitive geoscience data and information support new discoveries of a more diverse suite of energy and mineral resources	Australia's energy resource potential is progressively characterised and mapped	Publication of methodology to assess Australia's residual oil resource potential utilising enhanced oil recovery techniques Publication of residual oil resource potential in selected fields within up to two highly prospective basins per year				
		Publication of geological studies of the energy resource potential for six highly prospective				

		onshore basins and one highly prospective offshore basin			
		 Annual case study demonstrating industry uptake of precompetitive energy products and data to inform new investment activities 			
	annan recession perennan,	Sediment hosted base metals published	Precious, base and critical minerals hosted in alkaline rocks published	Iron oxide, copper and gold published	Sediment hosted copper published
	National-scale assessment of Australia's potential for hydrogen production, and geological storage of hydrogen and CO ₂	Publication of three national-scale maps of hydrogen production, and geological hydrogen ar CO ₂ storage potential			
1.3 The Exploring for the Future program improves the integration of minerals, energy and groundwater resource assessments to support industry and government decisions	New regional-scale geological studies of integrated minerals, energy and groundwater resource potential	Publication of integrated resource assessments fo three regions over three years (2021-2024)			

2. Supporting Australia's community safety

Environment

The impact of disasters on Australia's economy, environment and society can be significant and includes loss of life, loss of property and infrastructure, disruption to business and disruption to our livelihoods. Our cities and regional centres, and their supporting infrastructure, are expanding as populations grow. This increases our exposure and vulnerability to hazards. The forecast cost of disasters is expected to increase with our growing population and valuable assets expanding into areas vulnerable to hazards and a changing climate.

To be better prepared, and to make informed decisions to reduce disaster risk, Australia depends on availability of hazard, vulnerability and exposure information.

- We will reduce the impact of disasters for all Australians.
- We will provide nationally consistent data, information and advice to enable informed decisions on preparedness and response to the impact of hazards.
- We will advance our understanding of Australia's hazards and vulnerability of the built environment to support mitigation and reduce the cost of disasters.
- We will provide ongoing real-time monitoring, analysis and advice on significant earthquakes and potentially tsunamigenic earthquakes to help safeguard Australian and Indian Ocean communities.

Desta de la companya della companya della companya della companya de la companya della companya	Performance Measures			Target				
Performance Measures		2021-2022	2022-2023	2023-2024	2024-2025			
2.1 Data on hazard, exposure and	Level of exposure data with 5 years currency	5 datasets updated	5 datasets updated	5 datasets updated	5 datasets updated			
vulnerability for all decision makers that is discoverable, accessible, interoperable, trustworthy and nationally consistent	Hazard, exposure and vulnerability data that is accessible and discoverable	National datasets are updated and published openly reflecting advancements in best practice, evidence-based science and observations from significant disasters						
2.2 Stronger cross-sector capability development to leverage data for disaster risk management	Geoscience Australia's capability is routinely used in decision- making to be better prepared for, respond to and recover from the consequences of natural hazards	New case studies demonstrating the application of Geoscience Australia products and services to deliver actionable information in collaboration with a range of sectors						
	Availability of Digital Earth Australia Hotspots system for public access	95%	95%	95%				
2.3 Modern operations- grade systems, supported to inform time-critical decision- making and actions	Availability of time-critical systems to support seismic alerting, nuclear monitoring and geomagnetic monitoring	90%	90%	90%	90%			
	Response to requests for activation of the International Disaster Charter or the Copernicus Emergency Management Service	Response activation	e within 72 hou	ırs of a formal	request for			

3. Securing Australia's water resources

Environment

Australia is the driest inhabited continent, which makes water use and management a key challenge. In many parts of Australia, groundwater underpins agriculture, the environment, minerals and energy resource development, and the well-being of regional communities. We need to better understand groundwater in order to properly manage it. Understanding the connection between groundwater and surface water systems and reducing the impact of development on groundwater supply and quality are critical to our water security and regional development.

- We will deliver a complete map of Australia's groundwater system with estimated resource volumes.
- We will collaborate to deliver a complete understanding of the national surface and groundwater resources.
- We will deliver regional assessments of groundwater resources in priority areas.
- We will provide data, information and advice on groundwater systems to inform the sustainable management of these resources by government, industry and communities.
- We will develop new technologies that support the discovery of new groundwater resources.

Performance Measures	Performance Measures			Target				
renormance weasures				2023-2024	2024-2025			
3.1 Australia's water		assessme	on of regional g ents in six basi ic regions ove	ns and three				
systems are characterised and mapped in a nationally	Australia's water systems are progressively characterised and mapped	Maps and data of national surface water body extent updated every 5 days 95 per cent of the time						
consistent way		systems t		map of ground available geos jies				
3.2 Enable productive and sustainable water management decisions and practices for government and businesses	Products, advice and services are utilised and support governments and businesses	A SIV NAW CASA STUDIES NUMBERADO SUNDORTINO						

4. Managing Australia's marine jurisdictions

Environment

Australia's marine jurisdiction is about double the size of Australia's land mass and 4 per cent of the world's oceans. With increasing global demand for energy, food and security, activity within our marine jurisdiction is becoming increasingly important to our economy. Effective and efficient management of this precious environment relies on baseline mapping, understanding of marine resources and assets, and the ability to measure change over time.

- We will map and understand Australia's seabed to support sustainable management of our marine assets and support rapid growth of Australia's Blue Economy to \$100b p.a.
- We will deliver coastal landform data to inform management of the coastal zone and build resilience to the impacts of a changing climate.
- We will use geoscientific data to define Australia's maritime boundaries and underpin the legal and regulatory authority for our marine jurisdiction.

Performance Measures		Target				
renormance weasures		2021-2022	2022-2023	2023-2024	2024-2025	
4.1 Data describing Australia's maritime boundaries, the sea	Percentage of new seabed and coastal landform data made publicly available within six weeks of receipt of a standards compliant dataset	100%	100%	100%	100%	
floor, and the coastal zone is discoverable, accessible, interoperable, and nationally consistent	Availability of maritime boundaries webservices to support marine planning	90% uptime of maritime boundaries webservices on Australian Maritime Spatial Information System (AMSIS) platform				
	and administration	Maritime boundaries data accessible 95% of the time				
4.2 Develop marine related capabilities to enable businesses to be more productive and profitable and governments to make informed decisions	Geoscience Australia's capability in marine geoscience is used by governments and businesses in decision making	Annual case studies demonstrating new capabilities and use and impact of Geoscience Australia's products, advice and services			eoscience	

Creating a location-enabled Australia

Environment

Australia has a vast and rich landscape. Geographic data provides the nation with a complex view of the country's landscape through time. Geoscience data and information are a significant national resource with enduring value for the Australian community. Knowing when and where events and activities occur is essential for government, industry, researchers, and the community to make decisions and improve economic, environmental and social outcomes for Australia.

- We will deliver positioning accuracy of 10 cm across Australia, and enable 3 cm accuracy in mobile phone range, adding at least \$200m annually to the Australian economy over the next 30 years.
- We will deliver a satellite data platform that supports better-practice Government environmental decisions, helps Australian businesses to use satellite data and underpins the contribution of over \$5b annually to the Australian economy by the rapidly growing geospatial sector.
- We will provide trusted information on Australian geography that is accurate and easy to use, for everyone, everywhere
- We will underpin faster, cheaper and smarter approaches to decision-making and location-based activities through integrating digital mapping, satellite data, and real-time precise positioning.

Performance Measures				Tar	get	
remormance measures			2021-2022	2022-2023	2023-2024	2024-2025
5.1 Discoverable, accessible, interoperable, reusable and nationally consistent datasets that describe Australia's geography and support Australia's national interests	generate Australia consume	enabled information d through Geoscience programs can be d by decision makers, en, published overable	All publicly-releasable spatial data is discoverable with an increase of 5 datasets per year			
	Authorita data serv	tive, trusted positioning rices	Data services meet national and international standards			
5.2 Infrastructure enabling		ilability from nal positioning infrastruct orks	95% uptime	95% uptime	95% uptime	95% uptime
timely access to national spatial data and information for improved decision- making	systems 10 cm ac	infrastructure and to deliver trusted and curacy positioning cross Australia and its zones		Initial operational capability	Initial operational capability	Full operational capability
	systems accuracy for areas	infrastructure and to deliver (3 - 5) cm of positioning services with mobile phone a across the continent	Increase of 100 station s	Full operational capability	Full operational capability	Full operational capability
		d operate the Digital Atlas lia, including the Map	Initial operational capability	Secure operational capability	Full operational capability	Full operational capability

- 5.3 Develop location enabled capabilities to enable businesses to be more productive and profitable and governments to make informed decisions
- Geoscience Australia's capabilities and national spatial leadership mechanisms provide value to business and government
- Annual case studies demonstrating incorporation of Geoscience Australia's capability in business operations, government operations and programs, and efficiency of cross-government operations

6. Enabling an informed Australia

Environment

Geoscientific data and physical collections have enduring value. It is essential that these data and collections are collected correctly and can be easily understood and accessed by everyone. Data are acquired from platforms including satellites, observatories and laboratory instruments. Data and samples can be integrated to build models of our continent, our Antarctic and island territories and surrounding oceans.

- We will build and operate infrastructure to measure and monitor our environment
- We will be the authoritative custodian of geoscientific data and physical collections for the benefit of all Australians
- We will work to ensure all teachers are equipped with knowledge and resources to increase the participation of future generations in science, technology, engineering and mathematics
- We will provide national and international leadership in geoscientific and open source data, resulting in consistent, accessible and useable data across all areas of geoscience
- We will achieve a ten-fold increase in engagement with stakeholders across Geoscience Australia's digital platforms.

Performance Measures		Target					
remormance weasures		2021-2022	2022-2023	2023-2024	2024-2025		
6.1 Deliver high quality, transparent, reproducible data,	Embedding the use of data standards to create accurate, appropriate, fit-for-purpose and quality data products that are interoperable and reusable	Annual case studies demonstrating fit-for-purpo and quality data products that demonstrate use data standards and supplementary information data certainty, accuracy and quality					
information and science that is relevant to users	Increased use of Geoscience Australia's capability and engagement of stakeholders in our products and services	Annual case studies demonstrating breadth of capability supporting users and contributing to government decisions					
6.2 Support infrastructure to measure and monitor the environment	Our ground-based satellite stations continue to capture data of national and international significance	Ongoing management and operation of ground stations to support capture and delivery of data					
6.3 Management of offshore petroleum data and samples for effective regulation of the industry	Compliance with the Offshore Petroleum and Greenhouse Gas Storage Act 2006 requirements	Data and samples are assessed for compliand stored and backed-up securely within regulate timeframes in 95% of cases					
6.4 Develop and maintain Earth science		Develop five new resources for teachers year, and lead teacher professional dev events					
resources and programs for Teachers	ces and programs			Host at least 100 annual school visits and virtual engagements and produce a bimonthly newsletted to the Australian education community			

		resources fo		Review of existing programs with engage- ment of remote, rural and Indigen- ous schools	Visit remote or Indigen- ous schools to co-design activities	Review and successfully engage Geoscience Australia's Education and Outreach program with remote, rural and Indigenous schools	
S	Provide research support in the delivery of open-source geoscientific nformation	science litera and engager	Australia's Earth acy ment with national nformation and	Expand Geoscience Australia's National Mineral and Fossil Collection and collaborate with other holders of national geoscience collections, and establish a museum-quality database Coordinate public events to increase the awareness of the value of Earth sciences to all Australians			
S	Fit for purpose and sustainable digital science, solution s, platforms and tools to	sustainability	design, security, and strategic digital science platforms	Prioritise and undertake design reviews of proposed or existing digital solutions, platform and tools			
s n	support better practice science data management and delivery	• Positive Engagement with digital	Annual review of stakeholder activity with digital platforms, and user-stories of engagement with our platforms				

7. Trusted, sustainable and high performing

Environment

The successful delivery of the organisation's strategic objectives is underpinned by a strong foundation and positive environment to support a trusted, sustainable and high performing organisation.

Building trusted partnerships that connect professional and scientific expertise with our stakeholders ensures Geoscience Australia's value is known, accessible and used.

- Partner to enhance and cultivate a positive organisational culture and environment
- Build the foundation for technology and infrastructure to support the science and the organisation
- Alignment and communication of strategic intent, impact and business objectives
- Build sustainable policies, processes and procedures
- Better representation, access and use of data and science
- Deliver quality, timely and relevant scientific advice and endeavours based on our scientific data, knowledge and skills

and skills								
Performance Measures		Target						
renormance weasures		2021-2022	2022-2023	2023-2024	2024-2025			
		Establish	and embed pe	eople strategie	s			
7.1 Sustainable organisational leadership, capability, culture and performance	Develop organisational capabilities and leadership and build a culture to support strategic outcomes	Achieve one Science in Australian Gender Equity (SAGE) Cygnet Award	Achieve two SAGE Cygnet Awards	Achieve two SAGE Cygnet Awards	Achieve Silver SAGE accreditat- ion			
		APS Cen	sus engageme	ent score >70%	, o			
7.2 Deliberate and fit for purpose strategies, architectures, frameworks and processes	Fit-for-purpose strategies, architectures, frameworks and processes to support the organisation to meet high standards of governance, performance and accountability through effective engagement and provision of guidance	Enterprise strategies, architectures, frameworks and processes for our operating environment are developed, implemented and reviewed						
7.3 Demonstrating our organisation's value through increasing our profile and reputation	sation's value supported by a communications		Framework implemented					
7.4 Maintain reputation as the nation's trusted geoscience advisor in accessing land, air and	Enable and continuously improve Geoscience Australia's better- practice engagement with remote, rural, and Indigenous	 Advise and support planned field programs ac and facilitate the return of data to stakeholders involved in Geoscience Australia's field progra data acquisition 			eholders			
marine environments	communities, including by protecting Indigenous cultural heritage	Develop tools, frame-	Implement tools and training	Review effections and tra				

		works and training materials for best- practice engage- ment	materials for best- practice engage- ment	materials, ar relevant imp	nd implement rovements
	Ensure the quality, relevance and sustainability of Geoscience Australia's science by developing and implementing recommendations following an evaluation of Geoscience Australia's scientific capability and capacity	Design and conduct Science Evaluations	Develop Science Evaluat- ions Action Plan	Implement, r review Scien Evaluations Commence 2025–26 Sci Evaluations	ce Action Plan. planning for
7.5 Building capability and capacity to deliver science excellence	Provide scientific leadership and guidance to maintain scientific quality, relevance and excellence through a framework guided by Geoscience Australia's Science Strategy	Finalisation and release of Geo- science Australia's Science Strategy	Implement- ation of Science Strategy and review in alignment with review of Strategy 2028	Implementat Science Stra	
	Attract, develop and sustain Geoscience Australia's staff science capability and capacity	Lead scientific mentoring and support the 2021 Geo- science Australia Graduate cohort	Review Graduate mentor program. Provide scientific leadership for the 2023 Graduate cohort recruitment	Lead scientific mentoring, and support the 2023 Graduate cohort	Review Graduate mentor program. Provide scientific leadership for the 2025 Graduate cohort recruitment

Entity management and operations

Overview

Geoscience Australia is a non-corporate Commonwealth entity within the Industry, Science, Energy and Resources portfolio. We partner with governments, industry, publicly funded research organisations and academia to provide specialist expertise and information to support the delivery of Australian Government services.

Employees

Geoscience Australia has a highly educated and skilled workforce, spanning a number of specialist areas, including:

- Geoscientists such as geologists, geodesists, geophysicists, geochronologists and geochemists
- Spatial professionals such as cartographers, surveyors and remote sensing experts
- Data management professionals
- Educators and science communicators
- ICT specialists including experts in high performance data and computing, mathematics, engineers, graphic designers
- Corporate and management professionals including human resource, finance and communication specialists.

Geoscience Australia has an average staffing level cap of 600. Results of the last Australian Public Service Employee Census provided results of a highly satisfied, motivated, experienced and qualified workforce.

Information Communications Technology

Geoscience Australia's digital investment will drive and enable high-impact science, leading to more accurate and robust insights, and better decisions about Australia's resources, land and marine environments, spatial enablement and community safety.

Geoscience Australia's Digital Strategy 2019 – 2022 is available at http://www.ga.gov.au/about/corporate-documents

Budget and funding

Geoscience Australia is committed to meeting whole-of-government priorities and ensuring the effective provision of fit-for-purpose products and services. In this context, Geoscience Australia is continually improving operations to deliver improved efficiencies, reducing administrative overheads and providing services within a governance framework that supports organisational objectives.

In 2021–22 Geoscience Australia has a total revenue budget of \$315.6 million, an increase of \$99.0 million from the estimated actual revenue in 2020–21. This is largely due to an \$88.8 million increase in appropriation revenue from Australian Government, comprised of:

- Satellite-Based Augmentation System increase of \$65.4 million
- Exploring for the Future (Phase two) increase of \$17.3 million
- Digital Atlas of Australia increase of \$11.6 million

Own source revenue is expected to increase by \$10.2 million during the year. Total expenses for 2021–22 are budgeted at \$330.6 million.

Stakeholders and Partnerships

As the key government provider of geoscience data, expertise and analysis, Geoscience Australia is partner to a large number of collaborative, cross-government programs and projects.

We work in partnership with a wide range of Australian Government entities to provide geoscience services and information. Our collaboration with Australian Government, public and international partner organisations is highly successful.

We support emergency managers during natural disasters by supplying satellite imagery and maps. This ensures disaster managers have the most up- to- date information to make essential decisions.

Geoscience Australia is also partnering with the Bureau of Meteorology, CSIRO and the Australian Bureau of Statistics under the banner of the Australian Climate Service to reduce the impacts of disasters on our Australia's community, economy and environment.

With our partners in the Australian Space Agency, the Bureau of Meteorology, CSIRO and the Australian Earth observation community we are helping to shape the future of the Australian space sector through our contribution to the Australian Space Agency's Satellite Earth Observation Technology Roadmap.

We play a significant role within the Asia Pacific region providing information, advice and alerts to the Australian Government, the public and our regional neighbours about earthquakes, tsunami and their associated hazard and risk.

Geoscience Australia does not 'contract out' our services or compete in tenders. This positions the organisation to support independent evidence-based policy development across government.

Risk Management

The management of risk within the organisation is in accordance with the *Public Governance, Performance* and *Accountability Act 2013* and the Commonwealth Risk Management Framework and is consistent with AS/NZS ISO 31000:2009 Risk management – Principles and guidelines.

Geoscience Australia undertakes periodic risk workshops and reviews on risk management. The effective application of risk management improves decision making and facilitates better outcomes for the Australian Government.

Key entity risk identified through the risk workshops include:

- reputational damage from inadequate or untimely advice, or lack of innovation to meet evolving stakeholder needs
- Program delivery disruption from inadequate long term planning and management of resources and infrastructure
- Work health and safety from an unsafe work environment and or practises.

These risks are being managed under the entity's reporting and risk management framework that includes the regular monitoring and review of controls and identified mitigating actions.