



Geoscience Australia

CORPORATE PLAN 2017-18 to 2020-21

August 2017

Contents

1. Introduction	3
1.1 Chief Executive Officer's foreword	3
1.2 Statement of preparation	3
2. Strategic Direction	4
2.1 Purpose.....	4
2.2 Strategic Priorities and Objectives	4
2.3 Geoscience Australia's Vision	5
3. Strategic Priorities and Performance Criteria.....	6
3.1 Building Australia's Resource Wealth.....	7
3.2 Ensuring Australia's Community Safety	9
3.3 Securing Australia's Water Resources.....	11
3.4 Managing Australia's Marine Jurisdictions.....	13
3.5 Providing Fundamental Geographic Information.....	14
3.6 Maintaining Australia's Geoscience Knowledge and Capability	16
4. Financial Management	18
5. Geoscience Australia Overview	19

1. Introduction

1.1 Chief Executive Officer's foreword

Geoscience Australia has been the nation's trusted advisor on the geological and geographical history of Australia since 1946. At that time, the Australian Government recognised the need to locate and assess the nation's natural resources, and undertake fundamental mapping work for national development and growth. Separate agencies undertook this work for more than 50 years before joining in 2001 to form Geoscience Australia, bringing together the nation's expertise in geology, geophysics, geodesy, satellite imagery, and topographic mapping.

Today, our work covers the Australian continent, Australia's marine jurisdiction, and Australia's territories in Antarctica. We apply our geoscientific capabilities to the opportunities and challenges that face the nation: maximising value from our abundant minerals and energy resources; providing the fundamental geographic information to develop the nation; sustainably managing a vast marine environment; securing water on a dry continent; protecting communities from natural disasters; and operating an integrated network of geophysical observatories to collect and distribute nationally beneficial data and information.

1.2 Statement of preparation

As the accountable authority of Geoscience Australia, I am pleased to present Geoscience Australia's 2017-18 Corporate Plan covering the four-year period to 2020-21, as required under section 35(1)(b) of the *Public Governance, Performance and Accountability Act 2013*.



Dr James Johnson
Chief Executive Officer

18 August 2017

2. Strategic Direction

2.1 Purpose

Geoscience Australia is Australia's pre-eminent public sector geoscience organisation and the nation's trusted advisor on the geology and geography of Australia.

Our purpose is to apply science and technology to address important national issues and deliver a broad range of products that assist government and the community to make informed decisions about the use of natural resources, management of the environment, and community safety.

2.2 Strategic Priorities and Objectives

Geoscience Australia's work program is delivered through six key strategic priority areas:



Building Australia's Resource Wealth

To maximise benefits from Australia's mineral and energy resources, now and into the future



Ensuring Australia's Community Safety

To increase resilience to natural hazards in Australian communities



Securing Australia's Water Resources

To help drive optimal and sustainable use of Australia's groundwater resources



Managing Australia's Marine Jurisdictions

To maximise benefits from the sustainable use of Australia's marine environment



Providing Fundamental Geographic Information

To understand the location and timing of processes, activities and changes across Australia to inform decision making for both natural and built environments



Maintaining Geoscience Knowledge and Capability

To maintain an enduring and accessible knowledge base and capability to enable evidence-based policy and decision making by government, industry and the community

2.3 Geoscience Australia's Vision

Guiding the delivery of Geoscience Australia's work program is the organisation's vision of 'One Geoscience Australia'. This vision is supported by four pillars that provide the foundation of how the organisation conducts its science.

The four pillars of 'One Geoscience Australia':

Science Excellence

- Maintaining deep domain knowledge of Earth systems and the science of Australia's lands and waters
- Systematically pursuing excellence in science
- Providing national geoscience leadership and authoritative, independent advice to the Australian Government

Maximise Data Potential

- Leveraging Geoscience Australia's vast data holdings through accelerating engagement with high performance computing to solve geoscience challenges
- Providing transparent, repeatable results with quantified uncertainty
- Delivering quality data through new and improved data platforms, for accessibility by a broader cross-section of society

Supportive Stakeholders and Champions

- Maintaining the high regard of our stakeholders
- Focusing on user experience with a systematic and deliberate approach to stakeholder engagement
- Planning stakeholder engagements for maximum impact
- Raising awareness of Geoscience Australia with the general public

Organisational Culture

- Uniting Geoscience Australia's culture in the drive to apply geoscience for the benefit of Australians
- Cultivating and fostering an inclusive culture such that all employees have a sense of belonging
- Promoting a culture of innovation

3. Strategic Priorities and Performance Criteria

Geoscience Australia's work program is delivered through six key strategic priority areas. This section describes each priority area in more detail, outlining the role of the organisation, the desired outcomes to be achieved, and the core work activities and capabilities.

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 statement. Performance measures will include assessment against key work deliverables and performance indicators.

3.1 Building Australia's Resource Wealth

Environment

Australia's mineral and energy resources are a major contributor to the nation's wealth, both economically and socially. Understanding the available resources is a prerequisite for formulating sound policies on resources and land access.

Australia has a significant advantage in the production of resource commodities over other nations. This advantage stems from the rich and diverse mineral and energy endowment, the high quality regional-scale geoscience information that lowers the risks of exploration, advanced exploration, mining and processing technologies, a skilled work force, generally favourable physical environments, relatively stable economic conditions, enabling and robust legislative framework and low sovereign risk.

Our Role

Attract exploration investment to Australia by building a prospectus of minerals and energy resource potential.

Desired outcomes

- Australia is an internationally competitive destination for minerals and energy resource investment.
- Australia maintains its minerals and energy resources pipeline through new discoveries.
- Australia's resources are optimised to benefit and contribute to the economy.
- There is public confidence in the management of the minerals and energy resources sector.

Work Activities and Capability

Exploring for the Future - Energy and Minerals

The Exploring for the Future programme will deliver an improved understanding of the potential mineral, energy and groundwater resources in northern Australia. This is an under-explored region and offers significant potential for development and economic growth.

Geoscience Australia will deliver a resource prospectus, as a series of integrated maps, reports and datasets, for minerals, energy and groundwater that will attract industry investment and support a vibrant mining, equipment and services industry. Geoscience Australia will lead the programme in collaboration with state and Northern Territory government entities and will include delivery of a suite of new pre-competitive geoscience data and knowledge for targeted areas of northern Australia.

Energy Pre-Competitive Information

Resource exploration investment is needed to ensure the discovery and development of the next generation of oil and gas resources, both onshore and offshore. Each year, the Australian Government releases selected offshore regions to industry for petroleum exploration. This is often supplemented by the release of onshore regions by the state and Northern Territory Governments.

In support of this, Geoscience Australia generates a national prospectus of potential energy resources through new data acquisition and regional geological studies. This energy prospectus is vital to helping secure Australia's energy future, significantly lowering the risks for companies entering into Australia and enhancing Australia's reputation as an attractive destination for energy investment in a globally competitive resources market. Geoscience Australia takes a leadership role in the coordination of geoscience work across government entities and jurisdictions, including the establishment of standards and facilitation of survey acquisitions.

Minerals Pre-Competitive Information

The Australian Government aims to improve the success of mineral exploration in greenfield (unexplored) regions. Geoscience Australia supports this by generating a national prospectus of potential mineral resources through new data acquisition and regional geological studies.

A thick layer of sediment, or cover, exists across 80 per cent of the Australian continent, concealing potential mineral resources beneath. Exploring under this cover is technically difficult, requiring innovation and development of new exploration methods. The provision of high-quality geoscientific pre-competitive information lowers the risks for exploration companies and enhances Australia's reputation as an attractive destination for minerals investment in a globally competitive resources market. Geoscience Australia's work, in collaboration with state and Northern Territory governments, addresses fundamental data gaps and prospectivity questions in exploration areas.

	<p>Resources Advice and Promotion</p> <p>The provision of advice and technical information to the Australian Government enables evidence-based decision making and policy development for resources, and carbon capture and storage.</p> <p>Geoscience Australia provides authoritative, independent information and advice to the Australian Government and other stakeholders. This advice is supported by our vast data holdings of resources data covering many decades.</p> <p>Geoscience Australia undertakes promotional activities, often in collaboration with state and Northern Territory governments, to attract exploration investment to sustain the pipeline of resource development and investment.</p> <p>Geoscience Australia also leads the China Australia Geological Storage of Carbon Dioxide project, which is a collaborative project to accelerate the development and uptake of carbon capture and storage in both Australia and China.</p>			
Deliverables	2017-2018	2018-2019	2019-2020	2020-2021
<p>Exploring for the Future - Energy and Minerals</p> <ul style="list-style-type: none"> Acquisition, interpretation and delivery of pre-competitive resources data Deliver prospectus of energy and minerals resource potential in northern Australia 	✓	✓	✓ ✓	
<p>Energy Pre-Competitive Information</p> <ul style="list-style-type: none"> Deliver geological studies of the evolution and resource potential of onshore and offshore energy systems Deliver assessments of the energy potential of the Geological and Bioregional Assessments program 	✓ ✓	✓	✓	✓
<p>Minerals Pre-Competitive Resource</p> <ul style="list-style-type: none"> Deliver new pre-competitive data from greenfield undercover regions Deliver geological studies of the evolution and resource potential of undercover regions 	✓ ✓	✓ ✓	✓ ✓	✓ ✓
<p>Resources Advice and Promotion</p> <ul style="list-style-type: none"> Deliver geological information to support the Offshore Petroleum Acreage Release Deliver final reports for the China Australia Geological Storage of CO₂ Project Deliver investment promotions at key international resource seminars and trade conventions 	✓ ✓ ✓	✓ ✓	✓ ✓	✓ ✓
Key Performance Indicators	2017-2018	2018-2019	2019-2020	2020-2021
Stakeholder satisfaction with Geoscience Australia's acreage release products and services (biennial stakeholder survey)	N/A	80%	N/A	80%
Stakeholder satisfaction with Geoscience Australia's Exploring for the Future programme work (biennial stakeholder survey)	N/A	80%	N/A	80%

3.2 Ensuring Australia's Community Safety

Environment

Natural hazards, particularly floods, cyclones, bushfires and earthquakes, have a significant impact on the economy, environment and society. The direct costs of property and infrastructure damage and business losses are significant, as are the Government's outlays in relief and recovery payments.

Australia's ability to effectively mitigate the impacts of natural hazards and disasters is contingent upon the availability of information on the incidence and impact of specific hazards and on early warning and advice.

Our Role

Support Australia's capability to manage the impact of natural hazards.

Desired outcomes

- Australia has national capability to reduce the economic, social and environmental impacts of hazard events.
- Informed decisions can be made in response to and in preparation for hazard events.
- Ongoing monitoring and early warning systems provide safeguards from the impacts of hazard events.

Work Activities and Capability	<p>Community Safety</p> <p>Geoscience Australia provides essential information for the effective preparation, monitoring and response to natural hazards. To enable governments, businesses and the community to better understand the impacts of hazard events and to contribute to the development of more resilient communities, Geoscience Australia develops and delivers authoritative, nationally consistent data and information.</p> <p>Geoscience Australia will undertake national scale hazard assessments; develop an understanding of the impact of natural hazards on the built environment and provide advice and information to support impact mitigations; and, support the Australian Government in delivering their international policy commitments for disaster risk reduction.</p>			
	<p>Seismic Alerts</p> <p>Geoscience Australia operates extensive networks of observatories and geophysical monitoring stations that are monitored 24 hours a day, 365 days a year. This provides real-time information for the rapid notification of earthquake, tsunami and suspected nuclear events of national and international significance.</p> <p>Geoscience Australia provides rapid notifications for significant earthquakes. Information and advice is provided for national and local emergency management planning, coordination and response, and to inform the media and the public. Over the reporting period work will focus on improving technical capability and decision support systems, and the production of the Australian earthquake catalogue.</p> <p>Geoscience Australia will continue to monitor and provide rapid advice and post-event analysis to the Australian Government to identify acts in breach of the Comprehensive Nuclear-Test-Ban Treaty. Geoscience Australia's operational capability will be enhanced with the adoption of new science and technology and improvements to system reliability.</p>			
	<p>Situational Awareness Information Framework</p> <p>Natural hazards can have a significant impact on Australian communities, and often requires a whole of government approach to preparedness, mitigation, response and recovery. Geoscience Australia provides relevant location information on the nature, extent and potential impacts of disasters to the Australian Government. This 'situational awareness' information is used by our stakeholders to minimise the threat of hazards on our infrastructure and community, provide effective response to and recovery from disasters, and make navigation safe.</p> <p>Geoscience Australia leads the curation of and connection to location information products which support Australian Government community safety policies and operations. These products are derived from Australia's foundation spatial datasets and include the National Exposure Information System, location information products for Airservices Australia and the Department of Defence, and the Sentinel bushfire alert system.</p>			
Deliverables	2017-2018	2018-2019	2019-2020	2020-2021
<p>Community Safety</p> <ul style="list-style-type: none"> • Provide information and advice to the Australian Government and other stakeholders concerning natural hazards • Develop information and tools on natural hazard impacts on the built environment through the Bushfire and Natural Hazards CRC agency • Deliver work in support of the Department of Foreign Affairs and Trade's international Disaster Risk Reduction strategies and policies 	✓	✓	✓	✓

Seismic Alerts				
<ul style="list-style-type: none"> Provide ongoing nuclear monitoring for detection of suspected nuclear tests Provide 24 hour, 7 days per week earthquake monitoring and alerts Deliver system improvements to the earthquake detection and nuclear monitoring systems 	✓	✓	✓	✓
Situational Awareness Information Framework				
<ul style="list-style-type: none"> Provide advice and spatial capability to support the Australian Government's response to national disasters Deliver updated information products to Airservices Australia to support air safety Develop and deliver updated information using the National Exposure Information System to support Australian Government programs 	✓	✓	✓	✓
Key Performance Indicators	2017-2018	2018-2019	2019-2020	2020-2021
Stakeholder satisfaction with Geoscience Australia's community safety products and services (biennial stakeholder survey)	N/A	80%	N/A	80%
Number of flood study entries accessible to the public through the Australian Flood Risk Information Portal	1200	1500	1800	2000
All significant earthquakes detected, analysed and reported within agreed timeframes, with alerts issued for potentially tsunamigenic earthquakes	100%	100%	100%	100%
Nuclear events detected, analysed and reported within agreed timeframes	100%	100%	100%	100%
Availability of the national bushfire monitoring system, Sentinel, between October and March each year	95%	95%	95%	95%
Respond to requests to activate the International Charter for Space and Major Disasters within 24 hours	90%	90%	90%	90%
Respond to requests for geospatial information to the Australian Government Crisis Coordination Centre within 2 hours between October and March and within 24 hours during steady state periods	90%	90%	90%	90%
National vertical obstacle products comply with Civil Aviation Regulations and are delivered monthly, or as specified, to Airservices Australia	100%	100%	100%	100%

3.3 Securing Australia's Water Resources

Environment

Australia is the driest inhabited continent, which makes the use and management of water a key challenge. There is, however, a sparse understanding of our water resources in much of the continent.

Groundwater and surface water systems are fundamentally linked and an adequate understanding of groundwater in particular is critical for optimised and holistic management of water resources. In many parts of Australia groundwater underpins minerals and energy resource development, agriculture and regional communities and the environment.

Understanding groundwater systems and minimising the impacts of development on groundwater supply and quality are thus critical to Australia's ongoing water security and regional development.

Our Role

Inform the understanding of the location, quantity, quality and sustainable use of Australia's groundwater resources and surface water systems.

Desired outcomes

- Management of Australia's groundwater resources is underpinned by scientific evidence.
- Communities have access to a sustainable groundwater resource.
- There is public confidence in the management of groundwater resource use and environmental impacts.

Work Activities and Capability	<p>Exploring for the Future - Groundwater</p> <p>The Exploring for the Future programme will deliver an improved understanding of the potential mineral, energy and groundwater resources in northern Australia. This is an under-explored region and offers significant potential for development and economic growth.</p> <p>Geoscience Australia will deliver a resource prospectus, as a series of integrated maps, reports and datasets, for minerals, energy and groundwater that will attract industry investment and support a vibrant mining, equipment and services industry. Geoscience Australia will lead the programme in collaboration with state and Northern Territory government entities and will include delivery of a suite of new pre-competitive geoscience data and knowledge for targeted areas of northern Australia.</p>
	<p>Evaluating Australia's Groundwater Systems</p> <p>Significant gaps remain in the scientific knowledge of the size of Australian groundwater resources, their locations, characteristics, rates of recharge, connectivity with surface waters and rates of use or depletion. Geoscience Australia's work will deliver new data, interpretations and assessments of the nature, magnitude and status of groundwater resources in key parts of Australia, in collaboration with Commonwealth, state and territory government agencies.</p> <p>These new data and information will inform the sustainable management and responsible development of groundwater resources and to provide transparent, evidence-based advice in support of Australian Government priorities.</p>
	<p>Groundwater and Surface Water Innovation</p> <p>To improve the efficiency and cost-effectiveness in delivering groundwater assessments and advice Geoscience Australia will establish and embed new techniques to analyse, interpret and characterise groundwater resources, actively pursuing the best available science and technology.</p> <p>Geoscience Australia's work will advance multi-disciplinary and integrative geoscientific approaches to understanding groundwater-surface water systems and processes, and actively scan, partner with other organisations and apply current and emerging science and technology beneficial in the investigation of groundwater systems.</p>

Deliverables	2017-2018	2018-2019	2019-2020	2020-2021
<p>Exploring for the Future - Groundwater</p> <ul style="list-style-type: none"> • Acquisition, interpretation and delivery of pre-competitive data • Deliver prospectus of groundwater resource potential in northern Australia 	✓	✓	✓	✓
<p>Evaluating Australia's Groundwater Systems</p> <ul style="list-style-type: none"> • Provide authoritative, independent information and advice to the Australian Government and other stakeholders on groundwater resources, processes and impacts • Deliver final products and data for Lake Eyre Basin bioregion as part of the Bioregional Assessment Programme • Deliver stage reports to the Department of the Environment and Energy on 	✓	✓	✓	✓

the Geological and Bioregional Assessments	✓	✓		
Groundwater and Surface Water Innovation				
<ul style="list-style-type: none"> Assess geophysical and remote sensing technologies for groundwater system mapping and characterisation 	✓	✓	✓	✓
Key Performance Indicators	2017-2018	2018-2019	2019-2020	2020-2021
Stakeholder satisfaction with Geoscience Australia's groundwater products and services (biennial stakeholder survey)	N/A	80%	N/A	80%
Requests for groundwater resource management advice under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> responded to within agreed timeframes	95%	95%	95%	95%

3.4 Managing Australia's Marine Jurisdictions

Environment

Australia's marine jurisdiction is large, 1.8 times the size of Australia's land mass and 4 per cent of the global ocean. With increasing global demand for energy, food and security, activity within the marine jurisdiction is becoming increasingly important to the Australian economy. Effective and efficient management of the marine environment relies on baseline mapping, definition of boundaries and characterisation of marine resources and assets, and the ability to measure change over time.

Our Role

Contribute to the sustainable development of marine resources and conservation of key ecosystems.

Desired outcomes

- Expertise in the marine environment to support the sustainable development of resources.
- Australia has legal and regulatory certainty of marine jurisdictions.
- There is public confidence in the marine environmental regulations and outcomes.

Work Activities and Capability

Marine Jurisdiction and Coastal Zone

Geoscience Australia undertakes sea floor mapping and acquires geological and environmental data to help identify potential oil and gas resources, inform marine planning and the sustainable management of the marine environment, and identify patterns of biodiversity to support conservation.

Geoscience Australia's work will continue to focus on the development and delivery of defined national marine data products including national bathymetric grids. Geoscience Australia will provide national leadership and build capacity through partnering with Australian Government and marine entities to advance a more effective, integrated and efficient approach.

Deliverables	2017-2018	2018-2019	2019-2020	2020-2021
Marine Jurisdiction and Coastal Zone <ul style="list-style-type: none"> • Lead a collaborative national programme on bathymetry data acquisition and management with key Commonwealth and state government entities • Provide information and advice to support policy and operations in Australia's marine jurisdiction under the <i>Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009</i>, the <i>Environmental Protection and Biodiversity Conservation Act 1999</i>, and the <i>Antarctic Treaty (Environment Protection) Act 1980</i> • Undertake collaborative projects with partners of the Australian Government's National Environmental Science Programme, Marine Biodiversity Hub, to support management of the Commonwealth marine area • Implement a shallow-water seafloor mapping programme in high-use near-shore regions adjacent to the three Australian Antarctic research stations, Casey, Davis and Mawson, in collaboration with the Australian Antarctic Division and Royal Australian Navy 	✓	✓	✓	✓
Key Performance Indicators	2017-2018	2018-2019	2019-2020	2020-2021
Stakeholder satisfaction with Geoscience Australia's marine jurisdiction products and services (biennial stakeholder survey)	N/A	80%	N/A	80%

3.5 Providing Fundamental Geographic Information

Environment

Australia has a vast and rich landscape. Geographic data provides the nation with a multifaceted view of Australia's landscape through time.

Geoscience data and information are a significant national resource with enduring value for the Australian community. Understanding and analysing when and where things are happening is essential for government, industry and researchers to make decisions and improve national economic, environmental and social outcomes for the nation.

Our Role

Provide reliable national fundamental information about the geographies of the nation.

Desired outcomes

- Australia has an authoritative source of national fundamental geographic information including maps, data and global navigation information.
- Australia has continuity of geospatial information to monitor changes to the natural and built environment through time.

Work Activities and Capability	<p>Digital Earth Australia</p> <p>Digital Earth Australia is an analysis platform for satellite imagery and other Earth observations. It uses open source standards and is designed as an enabling infrastructure for data-intensive science and spatial information products to help both government and private industry make informed decisions. DEA builds on the globally recognised Australian Geoscience Data Cube which was developed as a partnership between Geoscience Australia, the Commonwealth Scientific and Industrial Research Organisation and Australia's National Computational Infrastructure.</p> <p>DEA has the capacity to unlock vast amounts of data enabling the application of time series analysis and the rapid development of quantitative information products.</p> <p>DEA will benefit government entities that need accurate and timely spatial information that can be readily used as an evidence-base for the design, implementation, and evaluation of policies, programs and regulations. Whilst DEA is at a stage of relative infancy, Geoscience Australia will progress the availability of analysis-ready data collections and improve performance and capability through the development of new analytical techniques and collection management tools.</p>
	<p>National Location Information Framework</p> <p>Australia's set of foundation spatial datasets underpin a diverse range of public safety, service delivery, policy making, law enforcement, environmental protection and economic investment decisions. Across all these sectors, informed decision making by government, business and the community depends upon access to accurate, reliable and relevant location information, that is easily accessible and able to link to other data.</p> <p>Geoscience Australia, in collaboration with other government entities and the private sector, will operate components of the Australian Spatial Data Infrastructure and lead the curation of and connection of users to Australia's national foundation spatial datasets, including datasets related to Australia's maritime and other administrative boundaries, place names, and topography.</p>
	<p>Positioning</p> <p>A National Positioning Infrastructure Capability will provide open access to reliable satellite positioning with centimetre accuracy across Australia, ensuring a modern, fit-for-purpose and internationally compatible sovereign positioning capability.</p> <p>Geoscience Australia is custodian of Australia's national coordinate reference system and will work to enhance national positioning capability with improved accuracy, reliability and accessibility. This includes a trial of Satellite-Based Augmentation System. Together with partners CRC for Spatial Information and Land Information New Zealand, this technology will improve the accuracy of positioning from 5 metres to 10 centimetres across the country, enabling new advancements across the transport, agriculture, construction and mining industries.</p>

Deliverables	2017-2018	2018-2019	2019-2020	2020-2021
<p>Digital Earth Australia</p> <ul style="list-style-type: none"> • Progress the availability of Digital Earth Australia analysis-ready collections with the addition of data from a range of satellites sensors and other sources of Earth observations • Develop and deliver information to support Australian Government programmes and business innovation 	✓	✓		

National Location Information Framework				
<ul style="list-style-type: none"> Maintain Australian Spatial Data Infrastructure collection management, governance, discovery and delivery systems 	✓	✓	✓	✓
<ul style="list-style-type: none"> Provide advice to develop and operate the Australian Spatial Data Infrastructure in line with the Australian Government's Spatial Data and Open Data Policy functions 	✓	✓	✓	✓
<ul style="list-style-type: none"> Develop and deliver information products identified in the Foundation Spatial Data Framework to support Australian Government onshore and offshore programmes 	✓	✓	✓	✓
Positioning				
<ul style="list-style-type: none"> Deliver components of the National Positioning Infrastructure project Complete trial of Satellite-Based Augmentation System 	✓	✓		
Key Performance Indicators	2017-2018	2018-2019	2019-2020	2020-2021
Stakeholder satisfaction with Geoscience Australia's foundation spatial data products and services (biennial stakeholder survey)	N/A	80%	N/A	80%
Geoscience Australia's foundation spatial data products, including authoritative representations of Australia's maritime boundaries and topography, are updated and/or accessible through interactive mapping platforms	70%	75%	80%	80%
Data availability from geodetic observatory networks	95%	95%	95%	95%
Data availability from South Pacific Earth monitoring network	90%	90%	90%	90%

3.6 Maintaining Australia's Geoscience Knowledge and Capability

Environment

Properly collected and archived data have an enduring value. It is essential these data are collected through appropriate means and are available in a format that is understandable and accessible.

These data are acquired from a range of platforms including satellites, observatories and laboratory instruments. Data from individual observatories or individual samples can be integrated to build models of our continent, Antarctica, island territories and surrounding oceans.

Our Role

Ensure geoscientific and geospatial data, information and collections are gathered, managed and made accessible for the use of all Australians both now and into the future.

Desired outcomes

- Australia's geoscience data, information and collections are managed and maintained.
- Australia's geoscience data, information and collections are discoverable and accessible as a public resource for informed decision making.
- Australia has as an established infrastructure to ensure the ongoing collection of fundamental geoscience data.

Work Activities and Capability	<p>Geoscience Promotion, Education and Awareness</p> <p>Greater understanding of geoscience and its application to issues of national importance builds capacity for geoscience to underpin evidence-based policies and decision-making. Geoscience Australia undertakes a range of activities to educate, promote and improve awareness of geoscience and its benefits. This includes the development of teaching resources and delivery of educational activities, a library that provides services to industry, universities, research centres and the public, and hosting an annual open day to promote and support National Science Week.</p> <p>Geoscience Australia is also a leader in the use of innovative technologies to share geoscience information, including multimedia and interactive 3D viewing technologies.</p>				
	<p>Observatories</p> <p>Geoscience Australia maintains and operates networks of observatories to acquire and deliver data about the Earth. The information is used to monitor for natural hazards including earthquakes, tsunami and bushfires, and provides essential information about global positioning and navigation systems. It closely aligns to Geoscience Australia's work on community safety and seismic alerts.</p>				
	<p>Petroleum Data Repository</p> <p>It is a requirement under the <i>Offshore Petroleum and Greenhouse Gas Storage Act 2006</i> that petroleum exploration and production companies submit offshore data and petroleum samples to the Australian Government. The enduring value of this petroleum data and sample collection is essential to Australia's exploration industry and supports Australia's future prosperity.</p> <p>Geoscience Australia is responsible for the stewardship and management of the data and samples and has developed the National Offshore Petroleum Information Management System as an online data discovery and delivery system for all Australian offshore wells and seismic surveys.</p>				
	<p>Science Support</p> <p>Geoscience Australia's Science Support activities provide the analytical, technical, engineering and logistical services that underpin the organisation's science and overall work program.</p> <p>Science Support work will provide geophysical and geochemical datasets demonstrating hydrocarbon prospectivity in offshore acreage release areas; geochemistry and geochronology (rock ages) supporting baseline geological mapping by state and territory geological surveys; and sonar mapping and analysis and geochemistry of sea-floor samples from around Australia and Antarctica that enable broad mapping of seafloor ecosystems and the identification of vulnerable areas.</p>				
	<p>Deliverables</p>	2017-2018	2018-2019	2019-2020	2020-2021
<p>Geoscience Promotion, Education and Awareness</p> <ul style="list-style-type: none"> • Undertake activities to promote, educate and create awareness of geoscience and its benefits 	✓	✓	✓	✓	

Observatories				
<ul style="list-style-type: none"> Operate and maintain Geoscience Australia's observatory networks and ground stations 	✓	✓	✓	✓
<ul style="list-style-type: none"> Deliver upgrades to the observatory networks and ground stations infrastructure 	✓	✓		✓
Petroleum Data Repository				
<ul style="list-style-type: none"> Operate the National Offshore Petroleum Information Management System for the discovery and delivery of petroleum data and samples 	✓	✓	✓	✓
<ul style="list-style-type: none"> Implementation of the physical asset management system into the National Offshore Petroleum Information Management System 	✓	✓	✓	✓
Science Support				
<ul style="list-style-type: none"> Deliver analytical data to support Geoscience Australia's science activities 	✓	✓	✓	✓
<ul style="list-style-type: none"> Deliver effective and safe support for field logistics, equipment, and data acquisition 	✓	✓	✓	✓
Key Performance Indicators	2017-2018	2018-2019	2019-2020	2020-2021
Data availability from the Comprehensive Nuclear-Test-Ban Treaty networks	98%	98%	98%	98%
Data availability from the seismic networks	90%	90%	90%	90%
Data availability from the geomagnetic networks	98%	98%	98%	98%
Alice Springs Observatory scheduled satellite passes acquired	98%	98%	98%	98%
Repository Client Services requests are responded to within 7 business days	90%	90%	90%	90%
New <i>Offshore Petroleum and Greenhouse Gas Storage Act</i> submissions are catalogued within five working days	90%	90%	90%	90%

4. Financial Management

Geoscience Australia is committed to meeting whole-of-government priorities and ensuring the provision of services is as efficient and well-targeted as possible. In this context, Geoscience Australia is improving operational efficiencies, reducing administrative overheads and delivering services within a governance framework that demonstrates the benefits and value of the organisation's work.

Table 4.1 – Comprehensive income statement

GEOSCIENCE AUSTRALIA: Comprehensive income statement				
<small>(source: 2017-18 Portfolio Budget Statements)</small>				
	2017-18 Budget \$'000	2018-19 Forward estimate \$'000	2019-20 Forward estimate \$'000	2020-21 Forward estimate \$'000
EXPENSES				
Employee benefits	77,160	78,123	78,138	78,152
Suppliers	121,693	122,114	105,428	81,588
Depreciation and amortisation	7,248	7,925	8,149	7,601
Other expenses	20	20	20	20
Total expenses	206,121	208,182	191,735	167,361
OWN-SOURCE INCOME				
Sale of goods and rendering of services	43,643	39,900	39,900	39,900
Other	95	97	99	101
Total own-source revenue	43,738	39,997	39,999	40,001
Net (cost of)/contribution by services	(162,383)	(168,185)	(151,736)	(127,360)
Revenue from Government (Appropriation)	151,108	156,926	140,967	117,874
Total comprehensive income/(loss)	(11,275)	(11,259)	(10,769)	(9,486)

This approved loss relates to the straight-lining of the Geoscience Australia Symonston, ACT building lease in accordance with Australian Accounting Standards, offset by depreciation/amortisation expenses previously funded through revenue appropriations.

5. Geoscience Australia Overview

Geoscience Australia is a non-corporate Commonwealth entity within the Industry, Innovation and Science portfolio.

Stakeholders and Partnerships

Geoscience Australia works in partnership with governments, industry, publically funded research agencies and academia to provide specialist expertise and information to support the delivery of Australian Government services.

Its collaboration with Australian Government, non-government, and international partner organisations is highly successful, with 91 per cent of stakeholders either satisfied or extremely satisfied with our overall performance.

Budget and Funding

Geoscience Australia has a 2017–18 appropriation budget of \$151.1 million. This includes the injection of \$100.5 million over four years for the 'Exploring for the Future programme' as announced in the May 2016 Budget and \$12.0 million over three years to test a Satellite-Based Augmentation System as part of the 'National Positioning Infrastructure Capability', that was included in the 2016–17 Mid-Year Economic and Fiscal Outlook. Geoscience Australia's appropriation budget drops to \$117.9 million in 2020-21. Refer to Section 4: Financial Management for further details.

Employees

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

- Geoscientists such as geologists, 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 of 600. Results of the 2016 Australian Public Service Employee Census provide supporting evidence of a highly satisfied, motivated, experienced and qualified workforce.

Information Communications Technology

Geoscience Australia's Information Communications Technology (ICT) vision brings together the best of ICT and the best of geoscience and geospatial developments that will deliver optimal outcomes. This vision extends beyond the boundaries of Geoscience Australia to emerging national research and cloud infrastructures that include data, compute, storage, software, networks and people.

To view the full ICT strategy please visit Geoscience Australia's website at <http://www.ga.gov.au/about/corporate-documents>.

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 Policy and is consistent with AS/NZS ISO 31000:2009 Risk management – Principles and guidelines.

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