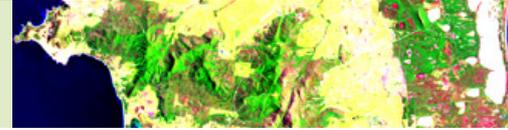




Geoscience Australia receives new funding



Ned Stolz

Geoscience Australia (GA) will receive a funding boost of \$34 million in 2013 – 14, rising to \$40 million per year from 2014 – 15 onwards. The Minister for Resources, Energy and Tourism, the Hon Martin Ferguson, AM MP announced the funding, stating that the money will sustain GA into the future, enabling it to undertake new precompetitive data acquisition and to consolidate its role as the national custodian of geoscientific data. The funding will also support continuing vital national-interest activities such as natural hazards assessment, global positioning infrastructure and groundwater assessment which will underpin evidence based decision making by government.

by the Department of Finance and Deregulation and Department of Resources Energy and Tourism in May 2011 and concluded that all of GA's main activities were underpinned by a sound business case, there was little duplication with other government programs, the activities were well aligned with government priorities and had a strong 'public good' element. In particular, The Review acknowledged the value of making high quality pre-competitive data freely available to industry, recognising that these data could be considered a 'prospectus' for Australia's resource potential. The prospectus attracts companies to invest and acquire their own more detailed data to discover, delineate and develop resources and create wealth for all Australians. The value of this investment represents an excellent return for the nation. The Review also highlighted that data stewardship was an agency priority for GA.

The Review was a major vote of confidence in GA and confirmed the value of its programs to government, however, it stated that prioritisation of Agency activities in the context of limited funding and resources was an internal matter for GA. The Review invited GA to submit

The new funding announcement is a great result for Geoscience Australia and is recognition of the value of the Agency's work to Government and to the Nation.

Background

The previous major funding package for Geoscience Australia was announced by the then Howard Government in 2006 and provided \$150 million over five years for programs aimed at securing Australia's energy future. The Energy Security Program (ESP) included offshore and onshore activities and released a wide range of high quality data, products and reports to industry which stimulated investment and reduced risk in exploration for energy resources. The ESP concluded in 2011 and produced a substantial body of work which confirmed GA's established reputation as a 'delivery' agency providing reliable and relevant products to stakeholders. Closely following the ESP was funding of \$64 million over four years from 2011 – 12 for major participation in the National CO₂ Infrastructure Plan to undertake assessment of potential offshore carbon capture and storage sites.

In 2010 the Government commissioned a major review into GA as part of an assessment of the Agency's long term financial outlook. The Strategic Review of Geoscience Australia (The Review) was completed

a New Policy Proposal (NPP) seeking appropriate funding to sustain the range of activities into the future.

By 2012 a much tighter financial outlook was forcing many government departments to cut budgets. In this tough environment, the GA NPP team with great support from Minister Ferguson and the Resources Energy and Tourism Department, were able to convince Government to support GA's activities.

New Funding Measures

Pre-competitive data acquisition: \$26 million per year

Funding for pre-competitive data will be split \$15 million for the petroleum and energy sector and \$11 million for minerals work. The funds will enable GA to design fit for purpose data acquisition programs within a strategic framework to achieve scientific goals and exploration investment outcomes for Australia.

The Review identified that government provision of pre-competitive information was a successful way to attract investment in resources exploration. The resources sector makes a vast contribution to Australia's export earnings, and a substantial contribution to GDP, employment, government revenues, exploration expenditure and capital expenditure on new projects, including infrastructure. The sector's export performance is critical to the long-term maintenance of Australia's current account position and the strength of the economy. Resources investment also generates a range of regional economic and social benefits including community development, infrastructure and job creation and, in a number of cases contributes to the emergence of sustainable indigenous communities.



Figure 1. Geophysical data acquisition aircraft typical of the type used in Geoscience Australia pre-competitive data programs.

Energy Programs

These will focus on enhancing the energy resource potential of Australia's largely unexplored offshore and onshore frontiers. Geoscience Australia will consult with industry to prioritise the 38 offshore basins which have hydrocarbon potential.

The offshore program will allow full basin analysis for a range of geophysical datasets, seafloor mapping and sampling of sediments and biota. This work provides the data for a comprehensive petroleum systems analysis as well as baseline environmental data that can support improvements to regulatory processes, including reductions in 'green tape'.

Minerals Programs

Assessing the potential mineral wealth of Australia was the primary focus of GA's predecessor agency, The Bureau of Mineral Resources, established in the late 1940s. This was the start of many decades of government data acquisition, culminating with the completion of surface geological mapping at 1:25 000 scale and the complete coverage of the continent with magnetic and gravity data. These data underpinned the highly successful mineral exploration from the 1960s to the 1990s resulting in the discovery of numerous high-value deposits.

The new funding will allow GA to continue this work and apply the latest technologies and methodologies to government pre-competitive data programs.

In particular, GA will seek to extend the mineral prospectivity assessment to ‘undercover’ areas. These are the large regions of Australia where recent sedimentary rocks or geological processes now obscure the underlying older basement lithologies, making direct mapping by surface observations of outcrop impossible. In some of these areas the geophysical data indicate that prospective rocks from neighbouring endowed provinces extend underneath the barren cover sequences. In other regions there is no knowledge of what rocks occur at depth. Geoscience Australia will seek to reveal the unknown geology and unlock these regions for new mineral exploration.

The work will be guided by the *Uncover Agenda* released recently by the Australian Academy of Science as a response to the declining discovery rate of mineral deposits in Australia over the past decade. The themes of *Uncover* are: Characterising Australia’s cover; Investigating Australia’s lithospheric architecture; Resolving the 4D geodynamic evolution, and; Characterising the distal footprints of ore deposits.

The work, which will be undertaken in collaboration with state and territory geological surveys and the research community, will include systematic drilling programs to test geological models and identify key indicators which point to mineral resource potential in the subsurface.



Figure 2. Data storage server racks. Information stewardship and delivery of high quality data to clients in the formats they require is an important role for Geoscience Australia.

***Data Custodianship:
\$5 million in 2013 – 14,
\$8 million per year
2014 – 15 onwards***

Geoscience Australia’s extensive holdings of geospatial and geoscientific data are the product of six decades of onshore and offshore data acquisition and represent millions of dollars of government investment. These data run to many thousands of terabytes and include strategically important national compilations such as the topographic map gazetteer, 30 years of satellite observation (Landsat) imagery, the bathymetric grid, and national geological and geophysical coverages. Almost all of these data are freely available to the public and constitute a valuable national asset.

The new funding will rejuvenate GA’s program of collation of all data to internationally agreed data-exchange standards, renovation of poorly compiled datasets and ‘cleaning’ of any non-compliant data. This ensures data is machine readable and can be amalgamated into ‘big data’ which can be processed and modeled to produce new, innovative products and services using high performance computers such as the National Computing Infrastructure facility at the Australian National University. The funding will also expedite development of user friendly delivery of data to clients, including to mobile devices, and web services for seamless input into client’s data processing and interpretation software.

Sustainable Operations: \$3 million in 2013 – 14, \$6 million per year 2014 – 15 onwards

Many of GA's ongoing programs are increasingly important for supporting evidence based decision making about geospatial and geoscientific issues that can directly affect the lives of many Australians. These programs include:

- Groundwater resource assessment and management
- Energy for a carbon constrained economy including geothermal and carbon capture and storage
- Geoscience infrastructure including National Seismometer Network and the Global Navigation Satellite Systems Network which enables high precision positioning for applications in transport, mining, industry and agriculture
- Earth observation from space, including Landsat imagery capable of monitoring changes in the landscape over timescales from days to decades
- Monitoring and risk assessment of natural hazards including earthquake, tsunami, floods and bushfires

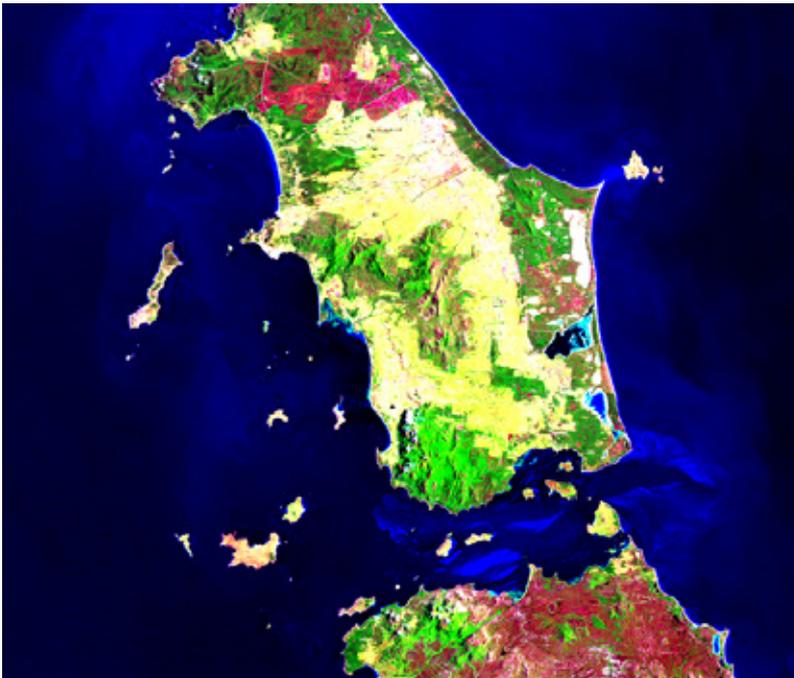


Figure 3. Flinders Island, Bass Strait. Satellite imagery provides multiple 'snapshots' of landscapes over various timescales enabling environmental monitoring and informing land-use decisions.

For more information

email ausgeomail@ga.gov.au

Future Outlook

The new funding announcement is a great result for GA and is recognition of the value of the Agency's work to Government and to the Nation. It is a vote of confidence in the relevance of the GA program priorities and its reputation for reliable delivery. The funding sets up GA for an exciting period of new program development and implementation, and consolidates existing activities that will assist all Australians to meet the challenges of maintaining prosperity and resilience into the 21st century and beyond.

Related articles/websites

Commonwealth of Australia, Department of Finance and Deregulation, 2011, Strategic Review of Geoscience Australia
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Geoscience Australia, 2011, Energy Security Program Achievements—Towards Future Energy Discovery
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Australian Academy of Science, 2012, Searching the Deep Earth: A vision for exploration geoscience in Australia
www.science.org.au/policy/uncover.html/

Additional Funding - fact sheet and frequently asked questions page
www.ga.gov.au/about-us/corporate-documents/additional-funding-from-2013-14.html



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