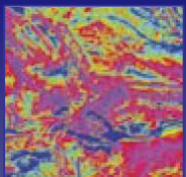
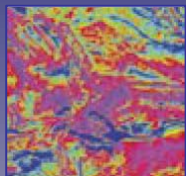


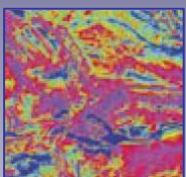
# MINERALS EXPLORATION ACTION AGENDA



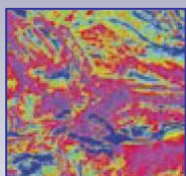
*The road to discovery*



*'The Journey'*

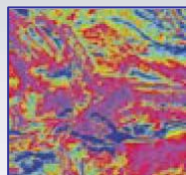


**2002 - 2006**



## MEAA Vision

*"A sustainable minerals exploration industry that is internationally competitive, efficient and environmentally and socially responsible"*



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# Note from the Chair

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*The Road to Discovery: the Minerals Exploration Action Agenda (MEAA) was launched on 2 July 2004, with a vision to develop a sustainable minerals exploration industry that would be internationally competitive, efficient and environmentally and socially responsible.*

At the same time a representative group of industry and government leaders (MEAA Implementation Group (IG)) was established to implement this vision across four key delivery strategies. This report documents the activities of the MEAA since it moved into the implementation phase and summarises conclusions and recommendations to government and the minerals industry.

**Access to land:** During this period industry and governments have worked cooperatively in removing impediments to land access while retaining the important Indigenous, environmental and social protection afforded by current legislation.

**Access to Finance:** The group has addressed a range of finance issues to improve the ability of Australian explorers to raise risk capital for exploration. These included the recognition of the key role which the introduction of a Flow-Through Shares (FTS) scheme would play in stimulating greenfields exploration. It also included the re-establishment of a resources index on the Australian Stock Exchange.

**Access to Pre-competitive Geoscience Data:** Members successfully advocated for increased geoscience funding with increases in most States. On 14 August 2006, the Australian Government provided \$58.9 million to enable Geoscience Australia to pioneer innovative, integrated geoscientific onshore pre-competitive geoscience research.

**Access to Human and Intellectual Capital:** The MEAA also recognised the importance of maintaining access to high quality human and intellectual capital for the future success of the mineral exploration sector and the wider resources industry in Australia. Governments and industry have continued efforts to attract and retain skilled workers, and ensure that the education system is producing graduates with the skills required for modern exploration.

The state of the minerals industry has also improved dramatically since the MEAA was announced. In particular, prices for most mineral commodities are at or close to record levels, driven by strong demand from China. The mining industry is enjoying strong and even record profits, in contrast to conditions immediately preceding the implementation of the MEAA, when the mining industry struggled to earn the cost of capital. Australian mineral exploration expenditure has nearly doubled since 2002 and reached \$1240 million in 2005-06, the highest level since 1998. The environment for capital raising for mineral exploration, and the efficiency of accessing land has also improved significantly.

However, these improvements in the overall health of the minerals industry mask an issue which should be of serious concern for governments in Australia. Although there has been a significant improvement in the levels of total exploration, Australia's share of global exploration expenditure has declined from around 20 per cent in the 1990's to 11 per cent in 2005 (Metals Economics Group 2006). Compounding this reduced 'international competitiveness' of the Australian market is a trend to reduced expenditure on greenfields exploration which targets new discoveries. These trends have significant long-term implications for Australia's rate of discovery of key new mineral deposits if we are to sustain the national mineral inventory. The recommendation of the Implementation Group for the introduction of a Flow-Through Share scheme should be considered a critical policy option for Federal Government.

While much has been achieved through this action agenda, mining companies, governments and research agencies must continue to work together to *achieve a sustainable minerals exploration industry that is internationally competitive, efficient and environmentally and socially responsible*. The Implementation Group members acknowledge that the implementation of the MEAA has run its course but that key strategic issues still relevant to discovery in Australia must continue to be pursued. Members note that the Ministerial Council on Minerals and Petroleum Resources (MCMPR) has agreed to establish an industry/government group to advise on key strategic issues and look forward to continuing to support new Australian mineral discoveries through this process.



**Mr John Dow**  
**Chair, MEAA Implementation Group**



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## **MEAA Membership**

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### **Minerals Exploration Action Agenda (MEAA) Implementation Group**

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Mr John Dow (Chair)	Director, Dowgold Consultants (Former) Managing Director, Newmont Australia
Mr Malcolm Cremer	Deputy Director General, QLD Department of Natural Resources & Mines
Dr Ian Gould	Immediate Past President, Australasian Institute of Mining and Metallurgy
Mr David Harley	Immediate Past President, Association of Mining & Exploration Companies
Mr John Hartwell	Head of Resources Division (Department of Industry, Tourism and Resources)
Mr Mitchell H. Hooke	Chief Executive, Minerals Council of Australia
Dr Jim Limerick	Director General, WA Department of Industry & Resources
Dr Ron Matthews	Vice President, NT Minerals Council and Manager Exploration, Cameco Australia
Mr Michael O'Neill	Chief Executive, Australian Gold Council
Mr Tim Shanahan	Chief Executive, Chamber of Minerals and Energy of WA Inc
Dr Justin Walawski	Chief Executive, Association of Mining & Exploration Companies
Dr Neil Williams	Chief Executive Officer, Geoscience Australia

### **MEAA Secretariat**

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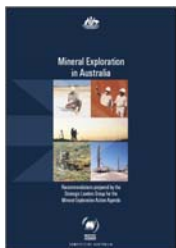
Ms Katie Lawrence	Assistant Manager, Sustainable Mining (Department of Industry, Tourism and Resources)
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## The Journey in Summary: 2002 – 2006

### 2002

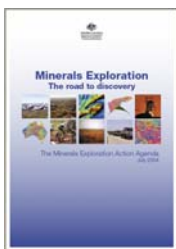
To address a decline in exploration, the Minister for Industry, Tourism & Resources, the Hon Ian Macfarlane, MP announced the Minerals Exploration Action Agenda (MEAA) on 12 September 2002.

### 2003



A Strategic Leaders Group (SLG) of industry and government representatives identify the priority issues and assess possible solutions. The priority issues identified as impacting exploration investment were – difficult access to land and finance and increasingly inadequate geoscience data and mineral exploration research. The report details 12 recommendations that the SLG viewed as critical to the viability of the mineral exploration industry and the long-term sustainability of the mineral resources sector. The Strategic Leaders Group Final Report, '*Minerals Exploration in Australia - Recommendations prepared by the Strategic Leaders Group for the Minerals Exploration Action Agenda*' was released on 7 July 2003.

### 2004



*The Road to Discovery*: the Minerals Exploration Action Agenda (MEAA) was released by the Minister for Industry, Tourism and Resources, the Hon Ian Macfarlane, MP on 2 July 2004.

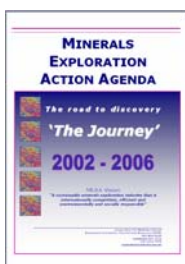
The Road to Discovery forms the core of the Resources Exploration Strategy (RES) which was also announced by the Minister on 2 July 2004. The RES is the Government's response to the House of Representatives Inquiry into Resource Exploration impediments, 'the Prosser Inquiry' released in September 2003.

### 2005



Implementation of the MEAA is being driven by an industry led group. At its first meeting on 23 July 2004, the Implementation Group determined priorities for implementation and established three working groups to progress specific actions in the Finance Strategy, the Human & Intellectual Capital Strategy and the Land Access Strategy. A formal working group for the Pre-competitive Geoscience Strategy was not established but responsibility for leading its implementation has been carried by Geoscience Australia. On 16 November 2005, the Implementation Group presented its first Annual Report to Minister Macfarlane.

### 2006



At a meeting on 22 June 2006, Minister Macfarlane noted that significant progress made by the Implementation Group and suggested that the Action Agenda process had run its course, but that it was important to continue the dialogue between government and industry to pursue the key strategic issues still relevant to discovery in Australia. Subsequently, the MCMPR agreed to establish a consultative group to advise governments on the key nationally, strategic issues relevant to the minerals sector. This 2006 Annual Report is the final MEAA report to Minister Macfarlane.

## **Developments in the MEAA**

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### **The problem – why an action agenda?**

The MEAA was launched in 2002 during a major downturn in global and domestic minerals exploration and a period of significant structural change in the Australian mining industry. For an extended period prior to this Australia had been a world leader in minerals exploration, consistently attracting a 17-20% share of global exploration expenditure and in the process developing a global centre of excellence in minerals exploration.

Leading up to 2002, however, the Australian and global minerals exploration sectors experienced a period of significant decline in the level of expenditure on minerals exploration. Global minerals exploration expenditure fell sharply from a peak in 1997 of US\$5,100 million to US\$1,900 million in 2002, before recovering to US\$2,400 million in 2003 (as estimated by the Metals Economics Group). Australia saw exploration expenditure fall sharply from a peak of nearly AUD\$1.2 billion in 1996-97, to AUD\$640.8 million in 2001-02, representing a 20 year low in real terms, before recovering modestly to AUD\$732.5 million in 2002-03 (Australian Bureau of Statistics - ABS).

This significant decline in investment expenditure reduced access to capital, expertise and other resources to an extent sufficient to threaten Australia's future as a centre of minerals excellence and to impede Australia's ability to respond to any future global upswing in metals markets. Such a situation was seen to adversely impact on Australia's competitive advantage in mining, Australia's largest single export earning sector.

### **Strategic Leaders Group Report - 2003**

The Strategic Leaders Group (SLG) chaired by Peter Lalor, the then Executive Chairman of Sons of Gwalia, and comprising senior representatives from industry, industry associations and government agencies, reported in July 2003 that:

'There has been a very significant decline in the level of mineral exploration expenditure in Australia in recent years. While the exploration industry is cyclical, it is widely acknowledged by industry and governments that the current decline in exploration reflects structural changes to the mining industry, changes to land access conditions and emerging gaps in pre-competitive geoscience information and human and intellectual capital. The decline also reflects market outcomes.'

*Executive Summary*

The SLG Report in 2003 made a suite of 12 recommendations it viewed as critical to the viability of the minerals exploration industry and the long term sustainability of the minerals industry. The Prosser Inquiry identified some fundamental issues afflicting the Australian resources industry. The Prosser report contained 28 recommendations aimed at building industry recovery through a collaborative approach between government and the industry.

The SLG considered that the impact of the *Native Title Act 1993* on access to land for mineral exploration had been substantial. The need to recognise Indigenous rights to land was acknowledged, but the SLG agreed that, at the time, native title processes implemented in some jurisdictions were complex, unwieldy and costly. In addition, decision-making processes were considered to be neither timely nor transparent.



Continuing uncertainty over legal interpretations combined with attempts in some jurisdictions to navigate through or around the process had created an enormous backlog of applications for exploration licences. The SLG agreed that the most practical approach to addressing these issues would be through improving procedural aspects of land access. The SLG made four recommendations aimed at strengthening working relationships between Indigenous and mining interests to build on the processes established in the *Native Title Act 1993* and the *Aboriginal Land Rights (Northern Territory) Act 1976* for mutually beneficial outcomes. The SLG recognised that engaging all the stakeholders with interests in sustainable land use, whether they involve native title, heritage, conservation or resource development, is a complex process, but one that needs to be tackled.

The SLG also recognised that Australian mineral exploration industry requires a constant flow of high-risk funds in the search for new ore deposits, in competition not only with many other countries, but also with other investment opportunities in Australia. The SLG considered that unless action is undertaken, the reduction in exploration expenditure (particularly greenfields exploration) is likely to continue, to the detriment of the continuing competitiveness and sustainability of the Australian minerals industry. The SLG believed taxation policy initiatives were required to increase access to finance for exploration, particularly for junior exploration companies who rely on the ability to raise external funds to carry out exploration.

The SLG viewed the ready availability of modern, high quality pre-competitive geoscience information as vital to mineral exploration. The SLG considered that improved pre-competitive geoscience information would reduce exploration risk and encourage exploration investment and cost effective discovery.

The SLG also saw that the maintenance of an appropriate skills base and adequate research and development was essential to ensure that innovation continued to drive mineral exploration in Australia. The SLG made three recommendations, namely to improve the skills base of geoscientists and explorers, retain support and expertise in relevant educational institutions and support private sector research and development.

#### **MEAA: The Road to Discovery Report - 2004**

The MEAA was launched with the 2004 report, '*The Road to Discovery*', and outlined the following Vision for the Action Agenda:

*A sustainable minerals exploration industry that is internationally competitive, efficient and environmentally and socially responsible.*

The report identified the supply side structural changes since 1996 that have reduced capital, expertise and other resources available to the minerals exploration sector to an extent sufficient to threaten Australia's future as a centre for minerals excellence. The report also developed an implementation plan for a suite of actions by industry and governments under four strategies:

- *A Land Access Strategy* for minerals exploration to provide efficiency and certainty to industry, communities and governments by engaging effectively with all stakeholders with interests in native title, cultural and environmental heritage, and sustainable development.
- *A Finance Strategy* to consider recent structural changes in the broader economy and the minerals industry that impact adversely on fund raising, and address impediments to industry competing effectively in Australian and overseas capital markets for finance for minerals exploration, particularly greenfields exploration.
- *A Pre-competitive Geoscience Strategy* to encourage exploration investment and cost-effective discovery through improved pre-competitive geoscience information available under nation-wide protocols, standards and systems.
- *A Human and Intellectual Capital Strategy* to maintain, cooperatively, an appropriate skills base and adequate public and private research and development.

## Implementation Strategies

As outlined above, the MEAA Report, *the Road to Discovery* contained four key strategies, each with a range of subsidiary actions as follows.

**A Land Access Strategy** for minerals exploration to provide efficiency and certainty to industry, communities and governments by engaging effectively with all stakeholders with interests in native title, cultural and environmental heritage, and sustainable development.

(a) Through the Ministerial Council of Mineral and Petroleum Resources Council (MCMPR), develop a coordinated approach to resolving impediments to land access, including protocols covering mineral tenure, native title, heritage, environment and conservation estate;

(b) Develop consistent, open and effective community engagement strategies to promote community acceptance of the mining industry and its contribution to a sustainable future; and promote these strategies through the MCMPR and industry associations;

(c) Facilitate where possible the development of regional agreements for native title and heritage protection approvals processes;

(d) Increase awareness of the availability of the expedited procedure provisions under the Native Title Act 1993; and

(e) Amend the Aboriginal Land Rights (Northern Territory) Act 1976.

**A Finance Strategy** to consider recent structural changes in the broader economy and the minerals industry that impact adversely on fund raising, and address impediments to industry competing effectively in Australian and overseas capital markets for finance for minerals exploration, particularly greenfields exploration.

(a) The Australian Government to consider taxation options that support and facilitate industry efforts to raise capital for mineral exploration;

(b) Industry will consider consultations with finance market and regulatory agencies (e.g. Australian Stock Exchange, Australian Securities Investment Commission) to consider ways of reducing the burden on small mineral exploration companies in raising capital on the stock market; and

(c) Industry will consider ways to improve the investment performance in the mineral exploration sector including through research into risk assessment and uncertainty, with a view to developing better business models for efficient mineral exploration.

**A Pre-competitive Geoscience Strategy** to encourage exploration investment and cost-effective discovery through improved pre-competitive geoscience information available under nation-wide protocols, standards and systems.

(a) Governments to consider a major pre-competitive geoscience survey program to achieve national coverage of basic geoscience datasets to modern standards; and

(b) Governments, in consultation with industry, to develop and implement nation-wide protocols, standards and systems that provide internet-based access to, and effective storage and archiving of geoscience datasets and industry-generated exploration data

**A Human and Intellectual Capital Strategy** to maintain, cooperatively, an appropriate skills base and adequate public and private research and development.

(a) Industry and government agencies have agreed to explore the opportunity offered by the existing programs outlined above to promote collaborative networks to lift the quality of teaching and research for the mineral exploration sector in education and training institutions;

(b) Industry, particularly Small to Medium Enterprises (SMEs), have agreed to explore the prospects for enhanced participation in the Government's Backing Australia's Ability and Backing Australia's Future programs, including Cooperative Research Centre's (CRCs) and the Collaborative and Structural Reform Fund (CASR);

(c) The Government has also undertaken to broaden the Higher Education Innovation Programme (HEIP) guidelines for 2004 to include the range of collaboration projects that will later be funded (on a competitive basis) through the CASR. In 2004 HEIP will have \$3.5 million to spend. The mineral exploration sector has agreed to consider submitting proposals to CASR for potential funding of projects, which would address the sector's education needs; and

(d) The Government will consider the reclassification of earth sciences into a higher cluster (10) when it next reviews the Commonwealth Course Contribution Schedule.

## Key Achievements

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It is the view of the Implementation Group that all of the original recommendations of the Action Agenda have been appropriately actioned. Key highlights and activities undertaken during 2004-06 are summarised below.

### Land Access Strategy

The Land Access Strategy has been driven through a Land Access sub-committee of the Ministerial Council on Mineral and Petroleum Resources (MCMPR). Through the sub-committee, industry and governments have worked cooperatively to remove impediments to land access while retaining important Indigenous, environmental and social protections afforded by current legislation. In line with the Attorney-General's proposed reforms of the Native Title system, the sub-committee submitted proposals for minor technical amendments to improve processes in the *Native Title Act 1993*. The group will continue to work to improve the interaction between Commonwealth, and State/Territory cultural heritage legislation.

### Finance Strategy

A significant amount of work has been undertaken by the Finance Strategy Group to quantify and better understand the nature of capital markets including the relative importance of Initial Public Offerings in raising funds for grassroots exploration. Based on the findings of this work, the group addressed a range of finance issues, including working with the ASX and Standard & Poor in reintroducing two resource indices on the Australian Stock Exchange in August 2006. The technical framework of a flow through shares (FTS) scheme that addresses previous concerns has been developed and actively promoted as a key outcome of the MEAA but has not been accepted by Government. Members will continue to support the FTS scheme to enhance the prospects for its introduction in the next Budget.

### Pre-Competitive Geoscience Strategy

MEAA members have successfully advocated for increased government funding for pre-competitive geoscience programs. State Governments increased funding for new geophysical surveys during 2003-05. On 14 August 2006 the Australian Government announced **\$58.9 million** for Geoscience Australia to pioneer innovative, integrated geoscientific research to better understand the geological potential of onshore Australia for both minerals and petroleum. The program is aimed at increasing exploration activity and providing a firmer basis for discovery of new resources. Important advances have also been made in implementing of nation-wide protocols, standards and systems that provide internet-based access to, and effective storage and archiving of geoscience datasets and industry-generated exploration data. The implementation of web based services required the development of internationally agreed standards for describing the range of geoscientific data that would be delivered.

### Human and Intellectual Capital Strategy

Under the Human & Intellectual Capital Strategy of the MEAA, industry and governments have continued efforts to attract and retain skilled workers, and ensure that the education system is producing graduates with the skills required for modern exploration. The MEAA recognises the importance of maintaining access to high quality human and intellectual capital for the future success of the mineral exploration sector and the wider resources industry in Australia. The group is conscious that a great deal of work is already underway in this area, and as such, their initial work focussed on a stock-take of existing initiatives to ensure synergies may be exploited and duplication avoided. The group has worked in cooperation with research agencies to develop new and innovative exploration techniques to assist in the search for buried ore deposits. The group has developed a proposal for a *discovery@depth summer school* to provide specialised professional development for geophysics graduates especially in the search for deep earth resources.

## **Land Access Strategy**

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The MEAA report, *'The Road to Discovery'*, in 2004, recognised that regulatory arrangements relating to land access contribute to the difficulties the exploration sector faces in competing with other forms of high risk, long-term investments. Access to land for exploration and mining has long been seen as a key challenge facing the minerals industry in Australia. The Industry Commission report of February 1991 into Mining and Minerals Processing in Australia, for example, said that land access *"is seen as the single most important issue facing the mining industry today"*.

New native title and environment and heritage legislation in the 1990s had exacerbated these issues by introducing additional land access processes. While the introduction of these additional access processes was consistent with substantial changes in community expectations in relation to native title recognition and environment and heritage protection, it is important to ensure that these processes are efficient and cost effective and do not impose unnecessary costs on exploration activities.

Improving the workability of land access processes and addressing these perceptions of risk (to provide certainty to industry, communities and governments) will require the engagement of all stakeholders with interests in native title and sustainable land use.

The Land Access Strategy has been driven through a Land Access sub-committee of the MCMPR. Through the sub-committee, industry and governments are working cooperatively to remove impediments to land access while retaining the important Indigenous, environmental and social protection afforded by current legislation. MCMPR officials determined a number of priorities for the MCMPR Land Access Subcommittee (LASC) to consider in the establishment of their initial work program:

- the interaction between Commonwealth and State/Territory Cultural Heritage legislation;
- key Native Title issues in terms of possibilities for improving processes at the margins, including time delay issues with regard to the expedited procedure;
- Prescribed Bodies Corporate (PBCs);
- engagement principles; and
- standard heritage agreements.

The LASC, which comprises members from each jurisdiction across Australia, held its inaugural meeting on 26 July 2005 in Canberra. To assist the subcommittee in its task a Stakeholder Reference Group (SRG) was established. The SRG, which includes representatives of Indigenous Groups, industry associations and academic groups was established to provide a mechanism for quick advice and feedback on proposals made by the LASC.

Progress has been made on each of the focus areas identified by MCMPR and this is detailed in the following table.

**Minerals Exploration Action: 2002 – 2006**  
**“The Journey”**

<b>Rec</b>	<b>Actions</b>	<b>Progress</b>
1	<p><i>(a) Through the Ministerial Council of Mineral and Petroleum Resources Council, develop a coordinated approach to resolving impediments to land access, including protocols covering mineral tenure, native title, heritage, environment and conservation estate</i></p> <ul style="list-style-type: none"> <li>• Choose one jurisdiction (WA) as pilot project and obtain government support for the process</li> <li>• Conduct comprehensive overview of legislative and administrative requirements that mineral explorers must meet to obtain land access and identify areas that may be streamlined</li> <li>• Endorsement of streamlined processes and promulgation in other jurisdictions.</li> </ul>	<p>The land access strategy was charged to the MCMPR for Implementation in late 2004. A Land Access workshop was held on 17-18 February 2005 at which priorities were considered for addressing the implementation of actions (a), (c) and (d).</p> <p>A formal MCMPR Land Access sub-committee was established, with a work program focusing on removing impediments associated with protocols covering mineral tenure, native title and heritage.</p> <p>In line with the Attorney-General's proposed reforms of the Native Title system, the sub-committee has submitted suggested proposals for minor technical amendments to improve processes.</p>
2	<p><i>(b) develop consistent, open and effective community engagement strategies to promote community acceptance of the mining industry and its contribution to a sustainable future; and promote these strategies through MCMPR and industry associations</i></p> <ul style="list-style-type: none"> <li>• Convene a workshop to discuss issues of common interest to government and industry in the development of community engagement strategies, and to develop strategies for action</li> </ul>	<p>Principles for Community Engagement have been established by the SIIS, industry and relevant NGO's. These principles were publicly released in November 2005.</p>
3	<p><i>(c) facilitate where possible the development of regional agreements for native title and heritage protection approvals processes</i></p> <ul style="list-style-type: none"> <li>• Identify two jurisdictions (WA and SA) that are developing regional agreements that could serve as templates.</li> <li>• Assist with their implementation and promulgation as template agreements</li> <li>• Collect data on the effectiveness of the template agreements</li> <li>• Encourage the use of template agreements in other jurisdictions, including through targeted funding to NTRBs engaged in the negotiation of such agreements</li> </ul>	<p>The Sub-committee is monitoring the significant number of regional heritage agreements and Indigenous Land Use Agreements (ILUA) being implemented around the country. Experience from this monitoring is being shared in the sub-committee so that lessons from individual jurisdictions can be adopted more broadly.</p> <p>The Sub-committee is also monitoring proposed amendments to the Aboriginal and Torres Strait Islander Protection Act (ATSIPA) which will provide for accreditation of State/Territory Indigenous Heritage Legislation where State/Territory legislation meets defined criteria. These amendments will also address the issue of 'last resort intervention' under the ATSIPA.</p>
4	<p><i>d) increase awareness of the availability of the expedited procedure provisions under the Native Title Act 1993</i></p> <ul style="list-style-type: none"> <li>• Collect data about the application and use of the expedited procedure</li> <li>• Consult with relevant stakeholder groups (governments, miners, native title groups) about their understanding and experience of the expedited procedure, and about any strategies that have been successfully adopted to facilitate the use of the expedited procedure.</li> <li>• In consultation with stakeholders, develop strategies for addressing any misconceptions and promote the efficient use of the expedited procedure.</li> <li>• Develop practical information and guidance for explorers on the use and application of the expedited procedure.</li> <li>• Adopt the expedited procedure provisions when considering low impact exploration tenements.</li> </ul>	<p>The Sub-committee agreed that existing processes external to the MEAA can and are being used to progress land access issues. The industry's awareness regarding the availability of the expedited procedure provisions has greatly improved since the development of this strategy during 2003. The expedited procedure is utilised in NT, QLD and WA in conjunction with heritage agreements/conditions.</p> <p>SA utilises Indigenous Land Use Agreements (ILUA) and Victoria is moving in the same direction. NSW provides options to the applicant to follow a low impact route or negotiated outcome. A package of inter-related reforms to improve the efficiency and effectiveness of the Native Title system has been developed by the Attorney-General's Department and the Office of Indigenous Policy Coordination.</p>
5	<p><i>(e) Amend the Aboriginal Land Rights (Northern Territory) Act 1976</i></p> <ul style="list-style-type: none"> <li>• Legislative amendments for reform of ALRA (consistent with stakeholder consultation completed in June 2003) introduced in the Federal Parliament</li> <li>• Consequential administrative changes</li> </ul>	<p>The June 2006 package of reforms will provide improvements and streamlining for stakeholders, including the mining industry.</p>

## Finance Strategy

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The MEAA report, *'The Road to Discovery'*, in 2004, noted that minerals exploration expenditure is an investment in research about the identification, location, size and quality of mineral deposits. The report further highlighted that structural changes to the minerals industry in Australia had impacted negatively on the capital-raising capacity of the minerals exploration industry. These changes, were described in the SLG report and also addressed in the Prosser Inquiry report, and included:

- the rationalisation of exploration budgets and organisations by globalising majors;
- consequent re-allocation of exploration expenditure by globalised majors outside Australia;
- a relatively reduced minerals industry in terms of market capitalisation on the stock market, with consequent reductions in the numbers of minerals industry analysts employed by broking firms; and
- the reduced ability of major broking houses to invest in the Initial Public Offerings (IPO) market resulting in a reduced secondary market and reduced investor interest in IPOs.

The Finance Working Group agreed that the primary focus in implementing the Finance Strategy under the MEAA was to continue to remove impediments, pursue remedies to identified market failures (including the introduction of FTS) and remove unnecessary regulatory burdens on small explorers, to encourage minerals exploration.

The Finance Working Group agreed that it was necessary to quantify and better understand the nature of the capital market and the relative importance of IPOs. Specifically it was agreed that empirical data on capital raisings in the exploration sector was necessary in developing future arguments for the introduction of any remedies to identified market failures. Based on this agreement, a study was commissioned into capital raising in the Australian market for all minerals related activity, differentiated by company and purpose. Geoscience Australia undertook this study, and it was presented to the Finance Working Group in April 2005.

It must be noted that the state of the minerals industry has improved significantly over the four years since the MEAA was launched in September 2002. During that period Australian mineral exploration expenditure has nearly doubled, , reaching a record \$1240.7 million in 2005-06. The environment for capital raising for mineral exploration has also improved significantly since implementation of the MEAA. There have been a record 28 new mineral exploration IPOs in the year to date (August). This follows 48 floats in 2005 that raised some \$177 million for mineral exploration in Australia and contrasts sharply with the very small number (13) of successful IPOs in 2001 for mineral exploration in Australia.

However these improvements mask a serious concern for governments in Australia. Although there has been a significant improvement in the levels of total exploration expenditure, Australia's share of the global spend has declined from around 20% in the 1990s to 11% in 2005. Compounding the reduced competitiveness of the Australian market is a trend towards reduced expenditure on greenfields exploration which targets new discoveries. These trends have significant long-term implications for Australia's rate of discovery of key new mineral deposits. (See p15 for a discussion on rebuilding Australia's international competitiveness).

Acknowledging the importance of attracting new investment as a source of continued growth and prosperity, the Minerals Council of Australia (MCA) through the working group raised with the Australian Stock Exchange (ASX) the notion of re-introducing resources indices with a view to differentiating the sector's performance in equity markets. In August 2006 Standard & Poor's and the ASX launched the S&P/ASX 300 Metals & Mining Index and the S&P/ASX All Ordinaries Gold Index (<http://www.asx.com.au/asx/statistics/indexInfo.jsp>). These indices will allow real time insight into industry market trends and more accurate monitoring and performance for companies and benchmarking for investors. Progress has been made on each of the focus areas identified by the group and this is detailed in the following table.

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**Minerals Exploration Action: 2002 – 2006**  
**“The Journey”**

<b>Rec</b>	<b>Actions</b>	<b>Progress</b>
6	<p><i>(a) The Australian Government to consider taxation options that support and facilitate industry efforts to raise capital for mineral exploration</i></p>	<p>The Finance Strategy Implementation Group commissioned a study by Geoscience Australia into capital raising in the Australian market for all minerals related activity differentiated by company and purpose. The study was presented to the group in April 2005.</p> <p>Based on the findings of this work, the group has developed a further, slightly revised proposal for FTS. This proposal was considered in the 2006-07 Budget process but the Government decided against proceeding with it. However, the 2006-07 Budget increased the diminishing value depreciation rate for new plant and equipment from 150% to 200% which will apply to all businesses, including those in the minerals exploration sector.</p>
7	<p><i>(b) Industry will consider consultations with finance market and regulatory agencies (e.g. ASX, ASIC) to consider ways of reducing the burden on small mineral exploration companies in raising capital on the stock market</i></p> <ul style="list-style-type: none"> <li>• Consideration could be given to measures to reduce the mandatory reporting requirements and other requirements which raise the costs unnecessarily. If measures are identified, the mineral exploration industry should consider developing a code of practice that encourages and promotes the existing requirements on a voluntary basis thereby giving firms a degree of choice in the level of expenditure.</li> </ul>	<p>The Finance Strategy Implementation Group prepared an options paper on reducing the regulatory burden on small companies raising capital in Australia.</p> <p>Based on this work the group worked closely with the ASX and Standard &amp; Poor in re-introducing two resources indices to raise the profile of the sector within the capital market. In August 2006 Standard &amp; Poor's and the ASX launched the S&amp;P/ASX 300 Metals &amp; Mining Index and the S&amp;P/ASX All Ordinaries Gold Index.</p> <p>The group is also investigating corporate governance requirements for companies listed on the ASX and their appropriateness for junior companies.</p>
8	<p><i>(c) Industry will consider ways to improve the investment performance in the mineral exploration sector including through research into risk assessment and uncertainty, with a view to developing better business models for efficient mineral exploration.</i></p>	<p>The Implementation Group determined that this action would not be pursued during the implementation phase of the Action Agenda.</p>

## **Pre-competitive Geoscience Strategy**

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The MEAA report, *'The Road to Discovery'*, in 2004, highlighted that pre-competitive geoscience information reduces perceived technical risks associated with exploration, by enabling an assessment of minerals potential and providing a basis for selection of exploration areas by companies. The report also noted that soundly-based area selection is critical to successful exploration. Lack of geoscience information was highlighted as increasing exploration risk and therefore identified in the report as an impediment to exploration investment and cost-effective discovery.

The 2004 report outlined the Australian pre-competitive geoscience database built by geoscientific mapping programs conducted by government geological surveys (Australian Government and States/NT) over the past 50 years. An audit of pre-competitive geoscience information conducted for the SLG report (2003) showed significant deficiencies in the coverage, currency and quality of national geoscience datasets.

In response, in-principle support for a four year collaborative program of geophysical data acquisition was given by the MCMPR in late 2003 with a program that aimed to specifically address prospective regions that were presently only covered by old sub-standard data. Increased State Government funding for new geophysical surveys to upgrade fundamental datasets to modern standards was announced by WA in 2004 and by QLD in 2005 and 2006 to accelerate acquisition over the large prospective areas in those states requiring modern data. These initiatives followed increased funding by SA and NT announced previously. In the initial absence of new funding from the Australian Government for acquisition Geoscience Australia (GA) assisted WA, QLD and SA by providing its geophysical survey specialists to project manage the acquisition of new airborne magnetic and radiometric and gravity surveys.

Following this work, on 14 August 2006, the Prime Minister announced that the Australian Government would provide \$58.9 million to enable Geoscience Australia to pioneer innovative, integrated geoscientific research to better understand the geological potential of onshore Australia for both minerals and petroleum. The funding will be directed at prospective but under-explored terranes to better understand the geological potential of onshore Australia for both minerals and petroleum. The program is aimed at increasing exploration activity and providing a firmer basis for discovery of new resources. This will be done through the application of the latest geophysical imaging and mapping technologies, and in consultation with the State and Northern Territory geological surveys/agencies.

Important advances have also been made in addressing the implementation of nation-wide protocols, standards and systems that provide internet-based access to, and effective storage and archiving of geoscience datasets and industry-generated exploration data. GA implemented an online geophysical data delivery system (GADDS) in November 2003, using advanced software developed by Intrepid Geophysics based on the OpeNDAP Data Access Protocol. This has proved a resounding success and GADDS was migrated to the Geoscience Portal ([www.geoscience.gov.au](http://www.geoscience.gov.au)) in November 2004 to enable the States and NT to deliver their geophysical data to clients from a single source. The implementation of web based services requires the development of internationally agreed standards for describing the range of geoscientific data that would be delivered. GA, GeoScience Victoria and CSIRO are working with the Geological Surveys of Canada, USA, Arizona, France, Sweden, and UK to develop GeoSciML to become a standard that will enable the global exchange of geoscience information via the Internet.

Progress has been made on each of the strategies identified by the 2004 report and this is detailed in the following table.



**Minerals Exploration Action: 2002 – 2006**  
**“The Journey”**

<b>Rec</b>	<b>Actions</b>	<b>Progress</b>
9	<p><i>(a) Governments to consider a major pre-competitive geoscience survey program to achieve national coverage of basic geoscience datasets to modern standards</i></p> <ul style="list-style-type: none"> <li>• Obtain in-principle agreement to undertake a four year collaborative program of geophysical data acquisition</li> <li>• Consult with State/NT Geological Survey agencies on current geoscientific gaps and priority needs to identify target areas for data collection.</li> <li>• Develop a four year program of geoscience data acquisition, on a cooperative basis between the governments</li> <li>• Subject to funding negotiate purchase of geophysical datasets; call tenders for geoscience survey program;</li> <li>• Annual review of 2003/04 program and endorsement of next year's program</li> </ul>	<p>In-principle agreement was obtained for a 4-year National Onshore Pre-competitive Geoscience Program to upgrade fundamental datasets to modern standards. Increased funding for geophysical surveys has been announced by WA (2004), QLD (2005 and 2006) and Victoria (2006). This follows increased funding by SA and NT announced previously. Geoscience Australia (GA) is assisting WA, QLD and SA by providing technical experts to project manage the new airborne magnetic and radiometric, and gravity surveys from the Commonwealth. In addition, on 14 August 2006, the Prime Minister announced that the Australian Government would provide \$58.9 million to enable Geoscience Australia to pioneer innovative, integrated geoscientific research to better understand the geological potential of onshore Australia for both minerals and petroleum.</p> <p>Over the past 3 years GA, in partnership with the States/NT, has completed major regional deep crustal seismic reflection surveys in the McArthur Basin (NT), Gawler Craton (SA), the Tanami Province (WA,NT), the boundary between the Thompson and Lachlan Orogens (NSW), and recently central Victoria to provide basic information on the crustal architecture in these important mineral provinces.</p> <p>These surveys have provided new insights into the 3D geology, controls on mineralisation and mineral potential, and are being used by companies as a component of their exploration strategy. They have also highlighted major gaps in knowledge of the geology and the deficiencies of interpreting the geology at depth from surface mapping. An expanded program of seismic imaging is key to stimulate new discoveries in covered terranes.</p>
10	<p><i>(b) Governments in consultation with industry, to develop and implement nation-wide protocols, standards and systems that provide internet-based access to, and effective storage and archiving of geoscience datasets and industry-generated exploration data</i></p> <ul style="list-style-type: none"> <li>• Development of on-line delivery of GA and agreed State/NT Geophysical data</li> <li>• Endorse and adopt standards for company exploration data submitted to Mines Departments</li> <li>• Develop and endorse a 2 year plan to upgrade and expand the GA Portal to include new on-line datasets</li> <li>• Implement web-based services for on-line access</li> <li>• Develop and endorse plan for implementation of an Australian earth science grid</li> </ul>	<p>GA implemented an online geophysical data delivery system (GADDS) in November 2003. This has proved a resounding success and to date GADDS has delivered 587 Gb of compressed data (6-8 times compression) to nearly 3,000 unique users. To date more than 35,000 datasets have been downloaded by users ranging from major mining companies through small exploration companies to consultants and prospectors.</p> <p>GADDS was migrated to the Geoscience Portal in November 2004 to enable States and NT to deliver their geophysical data to clients from a single source. Gridded and vector data from GA and all States (except SA) and the NT are now available.</p> <p>A single nation-wide standard for reporting of mineral and petroleum exploration in digital format has been agreed and is available from the Geoscience Portal.</p> <p>In partnership with the States/NT GA has provided a single consistent nation-wide database of mineral occurrences on the Geoscience Portal and in March added a continent-wide tenements map that is updated from State/NT data on a monthly basis.</p> <p>A pilot project has successfully demonstrated the interoperable delivery of geological data using geochemical data from GA, DOIR (WA) and PIRSA web-sites. This pilot, supported by AusIndustry under the Innovation Access program, the Minerals Council of Australia, the pmd*CRC, and GA and the State/NT geological surveys through the Chief Government Geologist's Committee, was extended to include the NT and most of the other states.</p> <p>The pilot has successfully demonstrated the technical feasibility of using web services and international standards for delivery of geoscience data. However, substantial development requiring additional resources is needed to extend the geochemistry pilot test bed to a production level network of services covering the wide range of geoscience data held by GA and the State/NT geological surveys and mines departments.</p>

## Human & Intellectual Capital Strategy

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The MEAA report, ‘The Road to Discovery’, in 2004, noted that personnel with the requisite education training, skills and working experience are vital to a minerals exploration program based on new technologies and best-practice approaches. The report also outlined that the cyclical nature of minerals exploration has seen the loss of skilled personnel over many years. The protracted downturn and structural change since 1997 was cited as leading to a major exodus of skilled personnel from the industry and that it threatened the viability of innovative minerals exploration in Australia for years to come. The 2004 report highlighted the necessity for a critical mass of exploration expertise to be maintained in Australia.

A response to this challenge requires active collaboration of industry, education and research institutions and governments. Close relationships between these organisations is necessary both to build human and intellectual capital in the exploration sector and to provide some continuity of career paths for trained personnel during cyclical industry downturns. Flexible employment arrangements may also offer opportunities for retaining skilled personnel during these downturns. The challenge for the MEAA was to ensure that the myriad of industry and government programs aimed at maintaining an adequate skills base and relevant research and development for minerals exploration and mining contribute effectively and efficiently to the future needs of the industry.

A Working Group was established to drive implementation of the Human & Intellectual Capital (H&IC) Strategy. It was agreed that a great deal of work is already occurring in this arena across a number of existing initiatives including the MCA’s Minerals Tertiary Education Council (MTEC), and others.

To better inform actions under this recommendation, the H&IC Working Group agreed to draw on work being undertaken by the Chamber of Minerals & Energy of WA (CME). The CME developed a matrix of all relevant initiatives currently in place within industry and the tertiary education sector, which were focussed on improved the teaching of exploration and geoscience. A similar activity was undertaken at the national level by the MCA’s MTEC. Each organisation in the Working Group utilised the matrix exercise to identify gaps, and develop educational strategies for both the exploration and broader mining sector.

The detection of buried ore bodies by geophysical (and other means) was identified by the minerals industry as a major limitation to the cost-effective discovery of the next generation of economic ore deposits. The H&IC Working Group developed a proposal for a *Discovery@Depth* Summer School to provide specialised professional development for geophysics graduates especially in the search for deep earth resources. The proposed program will bring together the best Australian practitioners and researchers in a single location to provide specialist focused teaching to a selected group of promising Australian undergraduate and post-graduate students. The *Discovery@Depth* Summer School will deliver a valuable and affordable reform to the existing structure of geophysical education in Australia. A proposal for the Summer School has been fully developed and further work is now being undertaken to ascertain the long-term need for the program and to ensure it is not duplicating any other university course in Australia.

Progress has been made on each of the strategies identified by the 2004 report and this is detailed in the following table.

**Minerals Exploration Action: 2002 – 2006**  
**“The Journey”**

<b>Rec</b>	<b>Actions</b>	<b>Progress</b>
11	<i>(a) Industry and government agencies have agreed to explore the opportunity offered by the existing programs outlined above to promote collaborative networks to lift the quality of teaching and research for the mineral exploration sector in education and training institutions.</i>	<p>The H&amp;IC is aware that the Minerals Tertiary Education Council (MTEC) and other organisations have been developing initiatives in this area prior to the MEAA.</p> <p>The H&amp;IC continued as a forum for the various organisations to inform each other of their initiatives and improve their coordination.</p> <p>The H&amp;IC continued with its strategy of each member organisation utilising a CME developed matrix to identify gaps, and develop educational strategies for both the exploration and broader mining sector.</p>
12	<i>(b) Industry, particularly SMEs, have agreed to explore the prospects for enhanced participation in the Government's Backing Australia's Ability and Backing Australia's Future programs, including CRCs and the Collaborative and Structural Reform Fund (CASR).</i>	<p>The H&amp;IC acknowledges that the Australasian Institute of Mining and Metallurgy (AusIMM) has an important role to play in this area given that its membership includes a variety of professionals working within SME's.</p> <p>The H&amp;IC believes that the MEAA should support AusIMM to develop a career and educational reference service for geologists.</p> <p>The H&amp;IC has tabled that geologists, metallurgists and other geoscientific occupations should be identified as a priority under the Australian Government's Skilled Migration Program.</p>
13	<i>(c) The Government has also undertaken to broaden the Higher Education Innovation Programme (HEIP) guidelines for 2004 to include the range of collaboration projects that will later be funded (on a competitive basis) through the CASR. In 2004 HEIP will have \$3.5million to spend. The mineral exploration sector has agreed to consider submitting proposals to CASR for potential funding of projects, which would address the sector's education needs.</i>	<p>The H&amp;IC found it difficult to develop consensus among tertiary institutions to host the "Discovery @ Depth" Summer School proposal.</p> <p>H&amp;IC agreed to pursue a modified "Discovery @ Depth" through the University of Adelaide. UA is developing a number of courses in relating to mineral exploration and in particular deep exploration. On behalf of H&amp;IC, MTEC has entered discussions with UA for it to host a pilot "Discovery @ Depth" Program.</p>
14	<i>(d) The Government will consider the reclassification of earth sciences into a higher cluster (10) when it next reviews the Commonwealth Course Contribution Schedule.</i>	<p>Similar to its position in 2005, H&amp;IC believes it critical that funding for geoscience courses be improved from cluster 8 to cluster 10 in the Commonwealth Course Schedule.</p> <p>This is so as to prevent market failure in the Australian education system in the provision of essential courses to the nation's knowledge base. Geoscientific courses continue to remain classified as cluster 8.</p>

## Minerals Exploration 2006

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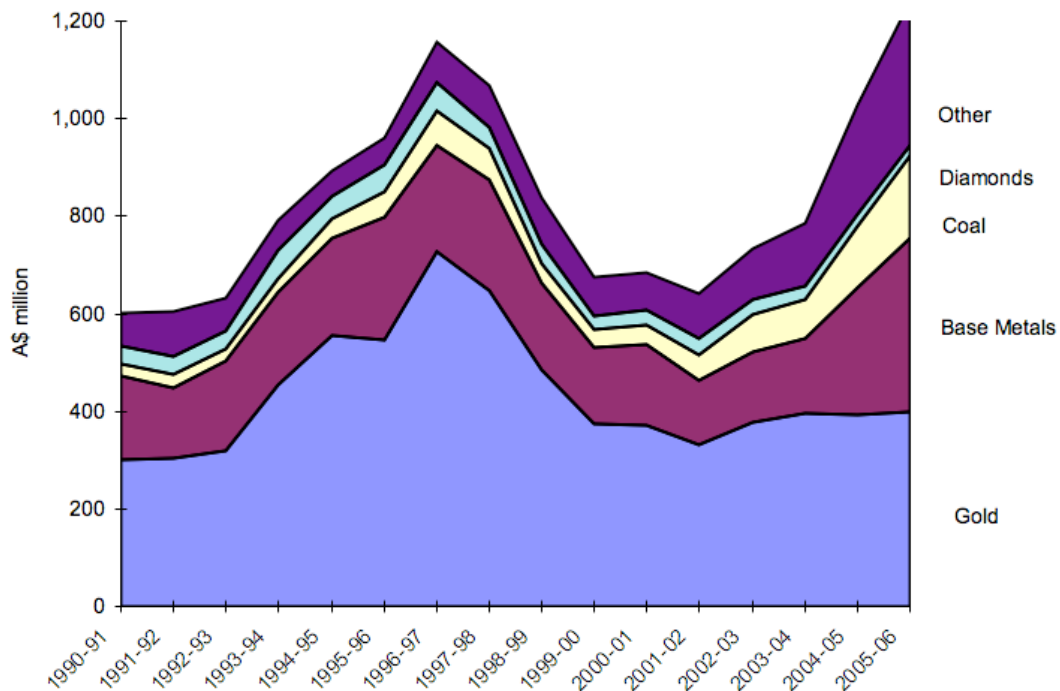
#### Contribution of Mining to the Australian Economy

- Australian Bureau of Agricultural and Resource Economics (ABARE) data indicates that the mining industry generates nearly 40 percent of Australia's export income, worth \$76 billion in 2005-06, more than any other industry sector. According to the Minerals Council of Australia (MCA), the sector directly employs 150,000 and indirectly 320,000 Australians.
- The MCA reports that in 2005-06 the industry, through taxes and royalties contributed \$7.03 billion to government revenue.
- With over 80 percent of mine production coming from pre-1980 discoveries, the prosperity enjoyed today is at risk without new discoveries. The rate of major discoveries is not keeping pace with production.

#### Exploration Budgets and Expenditure

Australian Bureau of Statistics (ABS) surveys indicate that Australian mineral exploration rose 20.7 percent in 2005-06 (calendar year) to a record \$1,240.7 million. This compares with \$1,028.3 million in 2004-05 and is the highest level of expenditure since 1997-98 (see **Figure 1**).

**FIGURE 1: AUSTRALIAN PRIVATE EXPLORATION EXPENDITURE (\$m)**



Source: ABS Cat No 8412.0

The increases in the levels of Australian mineral exploration recorded in the September quarter of 2006 and for the year 2005-06 recorded in the ABS surveys indicate continued recovery and expansion of the exploration industry from the severe downturn in mineral exploration that reached its nadir in June 2002. The increase in spending in the September 2006 quarter represents the twelfth quarterly increase in the ABS trend estimate.

Australian mineral exploration expenditure in 2005-06 was up 94 percent from the trough of 2001-02 and indicates that Australian mineral exploration is several years into a major boom. However, the 2005-2006 exploration level, although a record, falls short of past peaks in mineral exploration associated with mining booms when adjusted for inflation.

While these results are encouraging, the rate of growth of Australian mineral exploration expenditure is slower than global mineral exploration growth. The Metals Economic Group of Canada (MEG) 2006 survey of worldwide non-ferrous exploration budgets indicates global non-ferrous mineral exploration budgets reached a record US\$7.5 billion, a 47 percent increase on 2005 figures. In the survey Australia retained its second position on a country basis behind Canada which again attracted 19 percent of world non-ferrous exploration budgets and remained the leading country for exploration for the fifth year running. However, Australia's share of world non-ferrous exploration fell to a new low of 10.6 percent, down from 12.6 percent in 2005. Australia's share has almost halved over the past 10 years. On the region basis used by MEG Australia was again ranked 5th after Latin America, Canada, Rest of the World, and Africa. The fall in Australia's share in 2006 was taken up by increases in Latin America and the Rest of the World regions. The MEG survey reinforced other data that show that the number of companies active in mineral exploration in Australia has increased significantly with many new floats over the past 18 months, and the number of companies with substantial (US\$10 million or more) Australian exploration budgets has also increased.

Underpinning the boom in world exploration are the record or near-record commodity prices largely driven by an increase in demand from countries such as China and sustained levels of demand from long-standing trading partners such as Japan and South Korea. Gold dominates global and Australian exploration programs but, for the first time in more than 20 years, there is strong exploration interest in almost all commodities in the current boom, especially the bulk commodities such as iron ore and coal, and in uranium. Both the MEG survey and ABS data show that a high proportion of exploration is currently focussed on late stage exploration, as companies push to bring projects to a production decision to capitalise on the high commodity prices. Australia is also experiencing record levels of capital investment in new mining operations, infrastructure, rail and port facilities.

The decline in Australia's apparent competitive position is tied to a number of factors identified during the course of the MEAA. A significant impediment appears to be a perception that, despite recent copper-gold and mineral sand discoveries in South Australia and iron ore and nickel deposits in Western Australia, Australia is mature in exploration terms. The more substantial growth in other parts of the world – notably in Latin America (especially Mexico) and countries such as China, Mongolia and Russia – is due to increased exploration in countries perceived to be prospective but less well explored. This perception can be reversed by a major new discovery(ies) and the new data generated by the geoscience initiatives by the Australian and State and Northern Territory Governments will provide new insights into Australia's remaining mineral potential.

#### The need for greater innovation in exploration

A number of studies have highlighted a decline in the rate of discovery of major ('world-class') new mineral discoveries, both globally and in Australia, and a number of reasons have been put forward to explain the apparent decline. Chief amongst these are:

- the technical difficulty and cost of exploring for buried ('blind') ore bodies,
- the ineffectiveness of many current geophysical tools to effectively penetrate conductive regolith,
- lack of adequate investment in exploration,
- lack of innovation in exploration concepts and decision making, and
- lack of innovation in exploration technology to better image and discriminate between targets.

Each of these factors may play a role but it is clear from value-based studies of mineral exploration and discovery that the key area where the probability of exploration success can be improved is area selection and exploration targeting. Increasingly this requires new geological concepts coupled with a much better knowledge of the major regional controls on mineralisation and better information of the three-dimensional geology of prospective terranes. Again the increased expenditure by both the Australia and State/NT Government's on geoscience programs coupled with innovative research at a number of universities with a renewed focus on mineral exploration and the Cooperative Research Centres (such as the Predictive Minerals Cooperative Research Centre) will contribute to enhanced innovation in current and future exploration.

#### Exploration outlook

ABARE predicts that mineral commodity prices – most of which are at or near 20-year highs – will remain strong into 2007, underpinned by continuing strong demand from countries such as China. Asian economies are projected to account for 45 percent of the world's GDP by 2015 and are likely to underpin future minerals demand. This projected growth offers opportunities for significant wealth creation by capitalising on Australia's natural comparative advantage in mining.

Strong interest in the resources sector has resulted in an improved environment for capital raising and there have been a record number of new mineral exploration IPOs in the year to date. This revitalised financial position of mining and exploration companies should ensure a continued high level of exploration activity in Australia, despite the increased competition from both other mature and emerging mining nations. Recent exploration has resulted in a number of new mineral discoveries and encouraging drill intersections for a wide range of commodities in both greenfields and proven mineral provinces across Australia that provide a platform for potential discovery and addition of new economic resources. These, together with the new Government geoscience programs and research by Cooperative Research Centres, universities, government agencies, and industry should combine to lower exploration risk, thereby making Australia a more attractive destination for exploration investment and creation of new wealth.

## Minerals Exploration 2006

### © Skills Shortages

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Australia's booming resources sector has created strong competition for skilled labour both within and beyond the resources sector. This situation is not unique to Australia and is also being experienced in countries such as Canada and the US. Governments and industry have been active on a number of fronts in putting in place a range of initiatives to address this barrier to further expansion of this sector.

Training participation in the minerals sector has risen in recent years and industry has been successful in working with high schools to promote apprenticeship and traineeship pathways. Many companies are now placing a renewed emphasis on training Indigenous people to take on roles in the resources sector as well as investigating ways to increase the employment of women in the industry, for example through family-friendly rostering arrangements.

The report, *Addressing Barriers to the Employment and Training of Trainees and Apprentices in the Australian Minerals Industry*, which was commissioned under the auspices of the National Skills Shortage Strategy made a number of positive findings in relation to the effectiveness of existing initiatives in addressing skills shortages. The report found that between 1999 and 2004, training participation in the minerals industry continued to rise. The training packages which together accounted for two-thirds of all commencements were Metalliferous Mining, Metals and Engineering, Transport and Distribution, and Extractive Industry.

In addition to existing initiatives, on 12 October 2006, the Australian Government announced a \$837 million *Skills for the Future* package, which aims to help build a more highly skilled and responsive workforce to support Australia's long-term economic growth. Of particular relevance to the mining industry are the additional 500 university places for engineering, which add to the additional 510 places that were announced in July 2006. The package will also offer additional support for workers to undertake higher level technical skills at the Diploma and Advanced Diploma levels.

The National Skills Shortage Strategy Mining Sub-Group released *Staffing the Supercycle: Labour Force Outlook in the Minerals Sector, 2005 to 2015* on 13 October that projects the key skills required by the Australian minerals sector for major commodities in Australia from 2005 to 2015. The report provides a detailed analysis of the labour requirements relating to trade and semi-professionals in the minerals sector across all jurisdictions in Australia, for the nine major commodities – iron ore, coal, bauxite/alumina, gold, nickel, lead/zinc, copper and uranium and spanning the operational activities of exploration, open-pit mining, underground mining, processing and maintenance.

*Staffing the Supercycle* projects that 70,000 additional employees will be required in the minerals sector over the next decade in order to meet predicted increases in output, which represents an increase of 76 percent on current employment. The findings of this report indicate that labour shortages are likely to continue to constrain the growth of the minerals sector over the next decade.

The report also notes that as the largest projected gaps are in occupations with the lowest skill levels, the labour shortage problem is more one of attracting people to the industry. Women, Indigenous people and those currently employed in the manufacturing sector are identified as potential alternative sources of labour.

The skilled migration program has been used effectively by the minerals industry to address some short term skill shortages, particularly in professional positions. The current level of skills migration (120,000 places in 2006/07) has been supported by

governments and industry groups and is fundamentally a short-term strategy to address current skills shortages.

The report *Accessing the Required Skills from International Markets* identified that whilst the 457 business long stay visa works well for firms wishing to sponsor highly skilled managerial and professional personnel on temporary contracts, it is not available for semi-skilled workers. The Labour Agreement provision which enables employers to sponsor less-skilled migrants under the 457 category is not suited to the construction and set up phase of mining projects where there is often no ongoing employment.

On the whole, over the past five years, the minerals industry has made significant headway in embracing and providing innovative solutions to attract, train and retain apprentices and trainees. The industry remains committed to ensuring a high level of quality training outcomes, occupational health and safety, and the ability to ensure the apprenticeship and traineeship models remain flexible enough to meet industry and regional communities' needs.

However, despite the wide range of initiatives, including those aimed at skilled migration, vocational education and training, and promoting the uptake of higher education studies in engineering and earth sciences, work will need to continue to address impediments around the aging of the workforce, attracting graduates to a career in the sector as well as the capacity of the skilled migration program to address specific skills shortages within a reasonable time frame.



## **Action for the future**

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Australia is not unique in terms of its minerals endowment. Australia is, however, a world leader in the way it has combined its factors of production, minerals endowment and intellectual and human capital, to develop an industry recognised as a centre of excellence in the global minerals industry. Ensuring Australia is at the forefront of a global resurgence in minerals exploration and maintaining Australia's position as a world leader in minerals exploration is dependent to a high degree on maintaining a critical mass of exploration effort in the country, notwithstanding the structural and regulatory changes outlined above.

Cooperative action to reduce the impediments to, and seize opportunities for, growth will be productive. For an industry as important to Australia as the minerals sector the actions undertaken in this MEAA have been necessary and will continue to be critical for the future of the industry.

“In the short term, nothing did more for the standard of living of the average Australian than the chains of mineral discoveries. Unfortunately they quietly bred an economic complacency ... Australians of the cities failed to grasp the important fact, which would have been obvious to most of their grandparents, that the resurgence of mining (in the 1970s and 1980s) probably owed more to intelligence, effort and risk-taking than to natural endowments and unnatural luck.”<sup>1</sup>

### **Minerals Exploration Consultative Group**

At a recent meeting of the Ministerial Council of Minerals and Petroleum Resources (MCMPR) on 1 September 2006, Geoscience Australia gave a presentation on the state of the exploration sector in Australia. In particular, MCMPR noted that the Australian share of global exploration capital can be enhanced through innovation which lowers exploration risk, thereby making Australia a more attractive destination for exploration investment. MCMPR also noted the increased level of mineral exploration activity was predominately due to the continuing trend towards brownfields exploration and that a greater focus was needed to encourage more high risk greenfields exploration.

The MCMPR also noted the efforts of governments and industry to address the skill shortage in the resources sector and agreed to address attraction and retention issues in the sector.

These issues, which impact on the rate of discovery in Australia need to continue to be addressed. Whilst the time has come to wind-up this Action Agenda, it is important to continue the dialogue between government and industry to pursue the key strategic issues still relevant to discovery in Australia. At the September 1 meeting, the MCMPR agreed to the establishment of a group to pursue these key strategic issues. DITR will progress the establishment of this group in late 2006.

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<sup>1</sup> The Rush That Never Ended, Geoffrey Blainey, Melbourne University Press, Carlton, 2003, p361





