

Mining Business Outlook Report
2013-14

In every cloud there is a silver lining

Special Election Year Edition

newportconsulting

Canvassing the views of
Australian mining leaders on:

- ▲ Economic outlook
- ▲ CAPEX spending and investment
- ▲ Productivity
- ▲ Labour market
- ▲ Advice to Canberra
- ▲ Environmental concerns and restrictions



The *Mining Business Outlook Report* canvasses the views of Australia's mining leaders. It has been conducted on an annual basis since 2010. This year's report draws on lengthy face-to-face interviews that took place between April and June 2013. Sixty mining executives participated from a broad range of mining companies.

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For more information regarding the research, please contact Gemma Manning at Manning & Co. on (02) 9555 5233 or gemma@manningandco.com.au.

If you are a mining executive and wish to register your interest in participating in future interviews, please visit www.newportconsulting.com.au/mining

Introduction

This year's mining business outlook presents a significant negative shift in sentiment since our last *Mining Business Outlook Report*, released in July 2012. Last year we witnessed a visible slowing down of the sector and our report was one of the first to bring significant national attention to the mining boom's imminent end, which was widely reported on across the globe.

This year the situation has worsened and we're now seeing the effects of the slowdown with a surge in the number of mining leaders who are not optimistic about their business prospects, a sharp increase in companies slashing CAPEX spend, and an increase in mine closures. BHP one of the world's largest coal mining companies, recently closed two central Queensland mines and more are likely to go. Jobs are being cut across Australia; in the past 12 months, close to 9000 mining jobs have been lost in NSW and Queensland alone. Just as in the boom years a multiplier effect cascaded through the economy, we are now seeing the end of the boom follow that same path, affecting support industries, government revenues, terms of trade and jobs.

At first glance, yes; it is all doom and gloom for the sector. However, every cloud has a silver lining. The challenge now is for mining leaders to rethink their approach to operational excellence and management of mine operations in order to move forward and deliver shareholders and investors a return on investment. As access to funding becomes more difficult and falling commodity prices wreak havoc with business plans and future projects, the opportunity is now to operate these assets very well and drive value through them for investors, employees and the country.

Yes, the multi-billion dollar investment deals for new project developments and expansions have begun to come on stream. Mines have been built, infrastructure has been constructed. Now is the time for mining companies to operate their assets at an optimum level. Delivering a return to investors will improve the lending environment and we should see investment flowing into the sector and other areas of the economy again.

The purpose of our *Mining Business Outlook Report* is to check the pulse of the industry first-hand, by speaking with leaders on their outlook, challenges, opportunities and views on government policy. Being an election year, this special edition of the *Mining Business Outlook Report* features interviews with business leaders and academics including John Morshel, Chairman ANZ; Roy Green, Dean UTS Business School and Brendan Cannon, Director Firewall Logistics. The report concludes with advice to Canberra from our 60 interviewed mining leaders.

We hope you find the report both compelling and insightful, and we welcome your feedback.



“ At first glance, yes; it is all doom and gloom for the sector. However, every cloud has a silver lining.

”

A handwritten signature in black ink, appearing to read 'David Hand'.

David Hand, Managing Director

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Insights

This year's *Mining Business Outlook Report* paints an even more somber outlook for the mining industry than our previous three reports.

In 2013-14, mining leaders are focused primarily on what they can control including cost management, operational efficiencies, improved productivity, profitability and cash flow. With sharp falls in commodity prices, reduced investment in CAPEX projects and a contracting labour market, many in the industry are facing conditions they have never experienced before.

From our interviews with more than 60 mining leaders, the headline messages are:

Companies slashing spend

This is the first time in four years of this study that leaders have declared they're reducing CAPEX spend, not just postponing or moderately increasing it. This should send a strong warning signal to the industry and analysts as investment is definitely on the decline in most major areas of the sector. If a hold on investment is sustained, Australia risks becoming less attractive for investment in resources compared to other countries.

Cost control on agenda

This is even more important in 2013 due to project cost blow-outs and subsequent budget constraints. Last year, cost control and management was identified as both a challenge and a key strategy for many of the leaders interviewed, and this year the sentiment has strengthened. Cost-cutting is being felt across the economy by other businesses servicing the sector, such as machinery, labour hire and accommodation. The focus on cost control has been largely driven by the fall in commodity prices. Many mines are now operating at a loss, kept open by take-or-pay contracts in the supply chain.

Productivity: a must

Productivity is high on mining leaders' agenda as they face falling demand and commodity prices. Mining leaders must now turn their focus and attention on internal measures to maintain profitability and shareholder value. They must improve operational efficiencies and focus on input and labour costs. This year's survey notes a slight trend among miners to focus on operational excellence and productivity. However, there is still a long way to go before the sector can be described as having fully embraced productivity as their strategy for success and survival.

Innovation to be embraced

Along with a focus on lifting productivity levels, the resource sector must embrace new sources of growth through creativity, technology and innovation as a long-term strategy for productivity improvement and lower production costs. Advancements in the mining industry through innovation and new technologies have opened up opportunities for new suppliers, stimulating employment and growth in other industries. With relatively low levels of debt, Australia can afford to invest in research and innovation infrastructure, which will be necessary if we are to support a national productivity agenda and productivity levels by 2 per cent.

Contracting labour market

Within the last 12 months there has been a significant shift from a skills and labour shortage crisis in the resources sector to a situation where there are few vacancies and more job redundancies.

Outlook

Mining leaders gloomy about their prospects

This year's report suggests that business confidence in the sector is in free-fall, with leaders clearly displaying a gloomy outlook and significant antipathy towards Australian government policy, together with a lack of confidence in the economy and global market. It is a more negative sentiment than what we witnessed in last year's report, and confidence is the lowest since this report's inception.

Close to half of the mining leaders interviewed for this year's *Mining Business Outlook Report* are 'not optimistic' about their future prospects – a number that has surged by 34 per cent, compared with just 7 per cent in 2010, when the report was first launched.

Meanwhile, the number of mining leaders 'very optimistic' about their outlook decreased by 38 per cent since 2011 to only 19 per cent this year – again indicative of the doom and gloom in the industry.

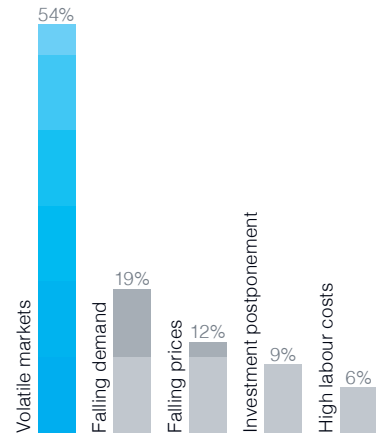
In the years since the report's launch, mining leaders have become increasingly negative with their outlook and genuinely worried about what the future holds for the sector.

What is driving this negative outlook?

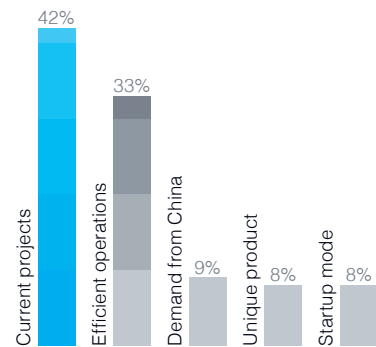
According to the mining leaders interviewed, tough and volatile market conditions are the primary reason for a downbeat view, followed by falling demand (19 per cent) and falling commodity prices (12 per cent).

Meanwhile, for mining companies who remain more positive with their outlook, new project developments and expansions are the prime reasons for optimism. Increased operational efficiencies were another key factor driving an optimistic outlook, which indicates that some mining companies have shifted their focus towards improving operations at their mines.

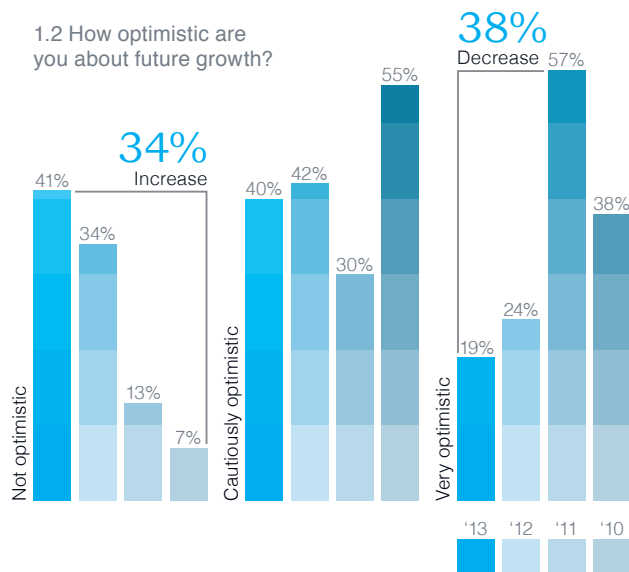
1.0 What is driving a negative outlook?



1.1 What is driving any optimism?



1.2 How optimistic are you about future growth?



Miners slash investment in CAPEX projects

Also indicative of a heightened negative outlook is the 44 per cent of mining leaders interviewed who said they were reducing capital investment. In the four years of conducting the *Mining Business Outlook Report*, this is the first time that companies have stated definitively that they are reducing spending. In the past, spending has either stayed the same, or increased moderately or significantly. Further, 42 per cent of mining leaders interviewed declared that they would not increase spending at all, an increase of 24 per cent.

Latest National Australia Bank figures support our report's findings, showing capital expenditure in the mining industry at an 11-year low – a downward trajectory likely to continue.

On the other hand, only 14 per cent of mining leaders interviewed reported that they would either moderately or significantly increase their investment in CAPEX projects. This represents a significant shift compared to last year, when two in three mining leaders interviewed planned to increase spending to some degree.

Our interviews also included businesses servicing the mining sector. These businesses are also feeling a ripple effect from the pullback on spend with many now struggling to survive, closing their doors or reducing staff and costs, despite once being beneficiaries of the boom. In other cases, contractors and suppliers have been asked by miners to lower their charges as mining companies attempt to streamline their own business operations while squashing the margins of service providers.

Outlook

Leaders on their future prospects

41%

Not optimistic

40%

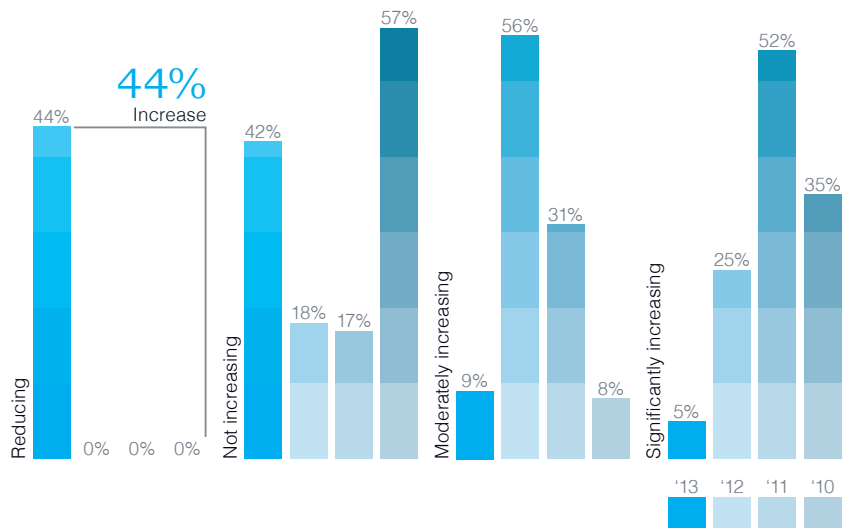
Cautiously optimistic

19%

Very optimistic

In the four years of conducting the *Mining Business Outlook Report*, this is the first time that companies have stated definitively that they are reducing spending.

1.3 Will you increase spending and investment?



Outlook

Why miners are not spending

When asked why they are slashing spend on CAPEX projects, mining leaders listed a range of reasons: the tough and uncertain economic environment (32 per cent), difficulty in getting development funding (30 per cent) and budget constraints (12 per cent).

Difficulty in sourcing development funding is a new factor that has emerged in this year's report and supports the case for miners to turn their focus internally by maximising operational efficiencies. If miners have to postpone projects and future investment because of lack of funds, they will extract the most value they can from existing operations and assets.

Some leaders (7 per cent) are redirecting budgeted funds for CAPEX projects to improving their operational efficiencies, again suggesting a growing focus on immediate resources rather than future investments. Others are eschewing investment altogether, controlling costs by slashing the number of employees and contractors. Some are turning to owner-operator models to save on costs, while others are holding off on expansions as they face an increasingly uncertain future.

The impact of falling commodity prices

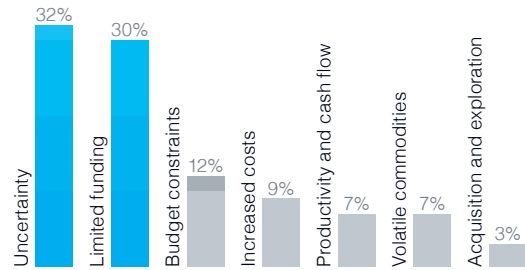
Mining leaders spoke at length about the impact of changing commodity prices on the performance of their mine operations and the subsequent impact on their outlook.

Given the volatility of commodity prices over the 12 months since our last *Mining Business Outlook Report*, as already reported, companies are worried about lower profit margins and as a result are concentrating on more effective cost control and management (27 per cent). Close to one-quarter of mining leaders surveyed said that they will cut costs by reducing the workforce, a scenario already seen at companies like Fortescue Metals Group, which laid off 1000 staff and contractors.

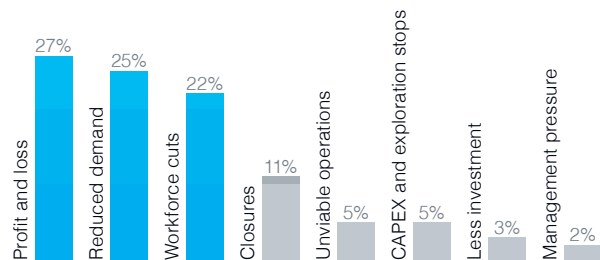
Other notable impacts of the falling commodity prices include closing mine sites and projects (16 per cent), stopping further exploration, struggling to attract investment (3 per cent) and experiencing pressure on management practices (2 per cent). Possible closure of mines and reductions in exploration are driven in part by the reduced availability of funding.

Falling prices combined with high costs has also caused great concern about the ability of Australia's mining companies to compete effectively with more cost-competitive and emerging frontier destinations, such as Papua New Guinea, Indonesia and South America.

1.4 Reason for not increasing spending and investment?



1.5 Impact of commodity prices on operations



Leader insights

“ We will struggle this year and in the future to keep our heads above water... it will be a constant battle. ”

“ As we sell less to the mining industry, we need to match our costs to this drop in demand, resulting in retrenchments and cuts in discretionary spending. ”

“ The capital raising market is extremely difficult and with the drop in the price of coal we need to cut our cloth to fit the circumstances. ”

“ The market is very tough and we don't see a change in this current level of production for the next two to three years. The low demand and the drop in the sale price of commodities makes us pessimistic. ”

“ Our expenditure has been reduced substantially and this will remain so until the price picks up or the high Australian dollar drops significantly. ”

Feature interview

John Morschel
ANZ Chairman

Last year's MBO report showed confidence in new large scale projects had disappeared. Do you see confidence returning in the next 12 months?

The conditions that have led to lower confidence about the mining sector project outlook have built up over a decade. During this time, the macro-environment has shifted, productivity has slipped and the industry has faced a number of policy uncertainties including tax.

In these circumstances, Australia needs to continue to focus on the business and policy settings that are needed to maximise the available opportunity. However, addressing this decline in productivity as Chinese growth slows is going to be a complex task and is likely to take some time.

There have been a large number of postponed and cancelled resources projects over the past 2 years. What conditions would need to prevail for these projects to be restarted?

While over the longer term Australia still has a huge opportunity as a result of Asia's urbanisation and industrialisation, it's fair to say that everything would have had to fall in to place for the project pipeline that we saw at the top of the cycle to have gone ahead.

To be successful now, project proponents have to meet a more rigorous combination of financial, commercial and risk hurdles. In addition to sound project economics, investors would be looking for the following:

- ▲ resource base of a size and quality comparable to other regional and global resource projects
- ▲ assets which can support multiple brownfield expansions once the initial development is complete
- ▲ locations that benefit from simpler logistics plans or have access to infrastructure or infrastructure rights
- ▲ quality and depth of management, with a track record in developing and operating similar assets.

How do you think Australia compares with countries such as Canada, South Africa and Brazil as an attractive place to invest?

There is no question that Australia faces intense global competition for its share of the growth opportunity in natural resources. But the reality is that the rapid and unprecedented demand in growth that we have seen in recent years has placed the entire global resources industry under pressure. Many project proponents across the globe are being squeezed between increasing costs and current price declines.

Australia does, however, face some particular challenges. For example, across major commodities, recent research by ANZ has shown that the capital investment needed to install an additional ton of productive capacity in Australia has risen by at least 50 per cent over the past five years. Australian projects also vary according to their exposure to approval and permitting risk, and the delays that quickly erode project economics.

While the opportunity remains for Australia, we must continue to focus on the business and policy settings that are needed to be competitive where there is global competition for capital.

What are your views on global mining companies increasing investment in emerging mining destinations and the subsequent impact on Australia's mining sector?

It is not a case of 'either-or' when it comes to attracting investment, but obviously Australia has some challenges to address if it wants to stay competitive. Equally, we need to remember that these emerging mining geographies also face some unique challenges. At ANZ we take a global view on the resources landscape and are at the forefront of supporting Australian miners wherever they operate.

What is your take on Australia's national productivity challenge and its impact on the mining sector?

The mining sector has undoubtedly been impacted by productivity challenges that exist throughout the economy more broadly. In terms of costs, much of the increased risk is a function of skills shortages. For example, the workforce required to build all 950 projects on the drawing-board for development equates to 5 per cent of the entire Australian workforce. In Western Australia alone, the required employment is equivalent to 15 per cent of the state's labour supply. If we are going to maximise the opportunity we have in natural resources, we are going to have to address issues like labour market flexibility as a national priority.

What are the biggest industry challenges and opportunities?

The challenges aren't just with the mining industry. Many of the businesses affected by the current flight to quality are in infrastructure, logistics, transport, engineering, labour supply, maintenance, computing and a host of other specialised areas. These adjacent businesses must also prepare for the coming flight to quality.

While the long term opportunity remains, at present firms need to quickly recognise that investors will increasingly look through their businesses to the quality of the underlying resource projects they service. Expansion plans should reflect realistic expectations of pipeline development by sector and geography.

What should the next Government focus on in order to support the sector?

At present, the opportunity is for governments to help create conditions which ensure the highest potential projects are prioritised. This could take the form of investment in the infrastructure required to reach export channels, or promoting greater certainty at state and federal levels in terms of mining taxes and royalties.

Government should also continue to streamline the approvals process for new projects that are of economic significance and reduce duplication between federal and state level processes. The lengthy delays seen throughout the boom have created uncertainty and risk for investors, and have ultimately resulted in unnecessary costs for the industry.

“ Australia needs to continue to focus on the business and policy settings that are needed to maximise the available opportunity.

”

John Morschel has been Chairman of Australia and New Zealand Banking Group Limited (ANZ) since March 2010, after having served as a Non-Executive Director since 2004. He is currently an ex-officio member of all ANZ Board Committees.

Mr Morschel has a strong background in banking, financial services and property and brings the experience of being a Chairman and Director of major Australian and international companies.

He is also currently a Non-Executive Director of CapitaLand Limited (from 2010), and Tenix Group Pty Limited (from 2008).

Mr Morschel was previously Chairman of Rinker Group (Chairman and Director 2003-2007), Leighton Holdings (Chairman and Director 2001-2004), and CSR (Director 1996-2003, Chairman 2001-2003). He was also a Non-Executive Director of Singapore Telecommunications (2001-2010), Rio Tinto Plc (1998-2005) and Rio Tinto Limited (1998-2005).

From 1993 until 2001, Mr Morschel was a Director of Westpac Banking Corporation, including two years as Executive Director, where his responsibilities included Australian retail banking and wealth management.

Prior to his banking career, he had 26 years as an Executive of Lend Lease Corporation culminating as Managing Director from 1988 to 1995.

Mr Morschel has a Diploma in Quantity Surveying (DipQS) from University of NSW. He is a Fellow of the Australian Institute of Company Directors (FAICD).

He is married with two children. His interests include skiing, golf and tennis.



Challenges

Cost control keeping mining leaders awake

Cost control and management is the number one issue keeping mining leaders awake at night (40 per cent); a 23 per cent increase compared to last year. This is followed by productivity (13 per cent) and increasing throughput (12 per cent).

As our data suggests, external market conditions have eclipsed all other challenges for mining leaders over the past year. In the previous two reports, government policy, IR regulation and the introduction of mining taxes were very real challenges for mining leaders. This year, more effective management of mine operations is the key challenge and priority, with a majority of companies focused solely on tightening their belts and reining in the costs of their operations. Falling commodity prices have driven these cost-cutting measures, which include staff redundancies.

Shifting focus to internal operations

Mining leaders appear to have accepted market conditions they have no control over, such as falling commodity prices, and are turning to focus on what they can control – costs, productivity and operating more efficiently. Mining leaders spoke at lengths about project cost blowouts they have experienced over the last year, and how this has reduced their spend on new projects. Weaker demand, a higher dollar and regulatory burdens from the carbon and mining taxes have forced miners to focus on reducing costs over the last six months through job cuts, small mine closures and project expansion delays.

Introducing innovative practices

As miners struggle with these challenges, mining companies are opening their eyes to the urgent need for innovation. In our interview with Roy Green, Dean of UTS Business School, Roy talks at length about how innovation could be the saving grace for Australia's economy and resources sector if companies act now. Despite the present challenges, innovation could still reinvigorate Australia's mining, manufacturing and services sectors and could be the catalyst for an industry-wide resurgence.

In the face of the challenges listed here, many companies appear to remain focused on increased operational efficiencies and productivity growth to overcome barriers to profitability and delivering shareholder value. Continuing with this strategy is likely to dramatically improve the profitability, productivity and throughput of mines.

Year-on-year What's changed from 2012 to 2013

On the way up

+23%
Cost control and management

+8%
Commodities and demand

+5%
Project delivery

+4%
Increase throughput

-8%
Change management

-6%
Uncertain market conditions

-5%
Expanding operations

-4%
Productivity

-4%
Labour shortages

Off the agenda

Leader insights

“ Our levels of productivity are not optimal and that is why we have foreshadowed possible retrenchments later this year. There is a continual challenge to balance the costs of the workforce, transport and regulations against the income from weakening sales.

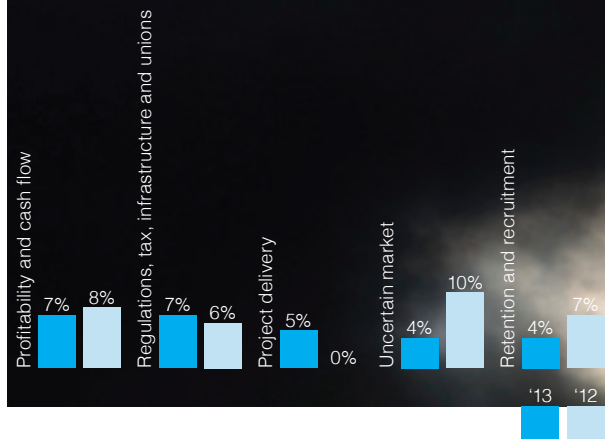
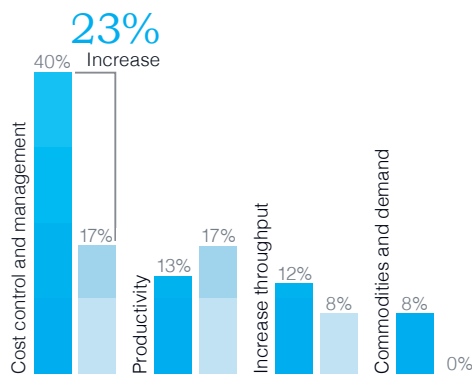
“ We are in survival mode, maintaining our essential employees and keeping our costs in check. Last year we retrenched 100 and this year we will do the same.

“ We want our pipe-line to operate in a stable manner so as to maximise throughput whilst retaining control on costs.

“ We need our employees to work more effectively and we need better cash flow to purchase labour-substituting equipment.

“ We have made reductions in our workforce to reflect the lessening demand for our ground control products. We have no obvious skill shortages.

2.0 What's keeping mining leaders awake at night



Productivity: act now!

Productivity remains rife with unclear priorities

In last year's *Mining Business Outlook Report*, mining leaders spoke for the first time about productivity as a challenge. The issue remains a crucial one for mining leaders, and one clouded with uncertainty as to its implementation.

More than half of the mining leaders interviewed see productivity as employee output against cost. By comparison, last year 64 per cent of mining leaders defined productivity as cost per unit. This shift in interpretation of productivity suggests an improved understanding of productivity. However, an overwhelming 66 per cent of mining leaders reported a low level of productivity. Only three per cent of mining leaders interviewed were confident about achieving high levels of productivity within their operation. Eight per cent could not gauge their productivity performance at all, lacking the knowledge on how to measure this indicator.

Lifting productivity levels still remains an unclear process for mining leaders, with most believing that cost cutting and workforce reductions are the answer. They also believe many barriers prevent them from improving productivity. The number-one perceived barrier to productivity is the strength of unions and IR regulations (32 per cent), followed by cost control and management practice (27 per cent) and high labour costs (15 per cent).

Performance

Leaders on their productivity rate

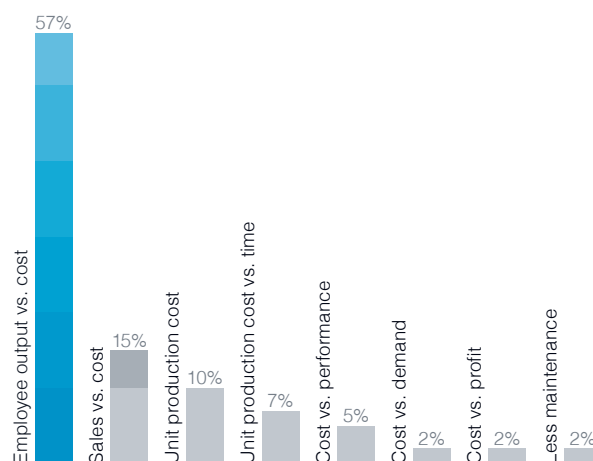
66%
Low

22%
Medium

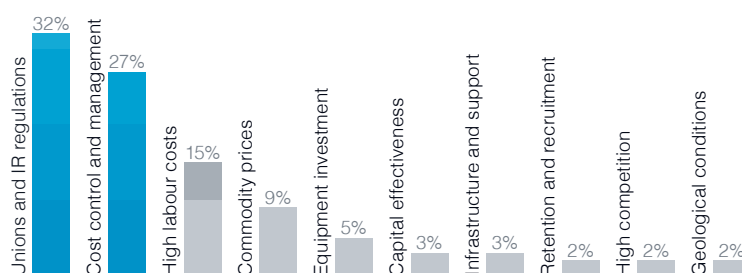
9%
Don't know

3%
High

3.0 How do you define productivity?



3.1 Are there any perceived barriers?



Leader insights

“ With the general downturn in this sector, we have very limited vacancies for specialised skills and no shortage of skills. ”

“ The lack of flexibility in the workforce and with the unions make it difficult to operate smoothly with the one aim. ”

“ We must be smart and solve issues rather than just eliminate more people and costs. ”

“ We are working with old equipment and this compounded with low throughput means that our productivity will be low. We need a certain level of throughput to have a reasonable level of productivity. ”

“ Unless the unions come to the party we will not be able to address our productivity issues. ”

“ We're focused on surviving by closely managing costs and retaining our highly skilled and experienced people. ”

Feature interview

Roy Green
Dean of UTS Business School

What are your views on Australia's productivity challenge and its impact on the mining sector?

We have experienced a significant deterioration in productivity performance since the mid-1990s when, following strong microeconomic reform, productivity peaked. Since then, we've seen productivity growth drop sharply in both labour and multi-factor productivity terms, but interestingly it hasn't been visible until now because of the mining boom. The mining boom increased our terms of trade and provided us with what some economists have called 'the gift from China', essentially a 15 per cent boost to our national income.

The current decline in our terms of trade exposes the deterioration in productivity that we've been experiencing. In the 1990s, productivity was the major contributor to our national income growth, but during the last 10 years it has been our terms of trade that has contributed at least 50 per cent of our growth. Without strong terms of trade or better productivity performance, or a favourable combination of the two, we're in great difficulty if we wish to maintain our living standards.

Declining productivity is an urgent issue for the nation and now requires immediate action, not just from the government but from every industry, including the mining sector. If we start unravelling what we mean by productivity and the nature of the productivity decline, we find that around 80 per cent of the productivity decline over the last 10 years was accounted for by three key industries – mining, agriculture and utilities. With the mining sector, this is because there has been a huge investment without any corresponding increase in output in the short term. Once output comes on stream, we can anticipate that productivity will increase, subject to higher quality project management and more collaborative workplace cultures.

We will see some bounce-back in productivity over the next year, but it won't be enough. Even though we are experiencing a decrease in our terms of trade, it has not been followed by a commensurate weakening of the dollar. Usually with a terms-of-trade decline, our trade-exposed industries and services become more competitive through the exchange rate effect, but this hasn't happened to any great extent. And so the dollar has set the bar for productivity growth much higher for trade-exposed firms and organisations that wish to compete locally and internationally, and we've seen the negative effects of this in manufacturing, tourism, higher education and other areas.

What is in store for the mining sector in the next 5 years?

While we are still seeing strong demand from China in certain sectors, we are also starting to witness an easing of global demand in these areas of the economy, particularly manufacturing, tourism and higher education. Along with mining, higher education is one of Australia's largest exporters and the sector has been hit by the high value of the dollar and subsequent drop in the number of fee-paying international students – particularly from China and India.

All areas of the economy need to recognise that we are operating in a high-cost environment, but industry leaders and policy makers must not get too negative or defeatist because there are many high-cost economies that are competitive. These countries don't necessarily compete on price; they compete on a whole range of other factors – product quality, product design, new business models and most significantly innovation. If you take the Nordic countries, for example, they are a good model for Australia to examine and benchmark against. These countries are not dissimilar to Australia – they too have a population of approximately 23 million and a relatively large land mass with even larger ones next door, Europe in their case and Asia in ours. They also have a number of major manufacturing and knowledge-based companies in the Fortune 500. Australia has mining companies in the Fortune 500 but no others from trade-exposed sectors.

There is no doubt Australia faces a national problem. If the terms of trade continue to fall and we don't increase our productivity, while commodity prices continue to fall, we need to find other sources of growth, not to replace mining but in addition to mining, and we need to do so quickly.

Where do you anticipate growth to come from?

Sources of growth will be based on the current and potential competitive advantage that can be achieved from a number of factors, particularly through innovation at the firm level. Sometimes we underestimate the degree to which mining innovation and technology development has enabled export growth in the knowledge-based areas of manufacturing and services. A new report shows the important link between manufacturing activities and the mining sector. If there are areas of manufacturing that can flourish due to new thinking, new design and innovation, there will be less concern when other traditional areas diminish in significance for the economy. Government intervention is only justified in areas that are prepared to transform and become internationally competitive – otherwise such public support is futile and counter-productive, except as a transition strategy for the workforce.

How should the mining sector embrace innovation in the next 5 years?

The mining sector traditionally was considered one-dimensional. But it is actually a very complex industry encompassing world-leading innovation in areas such as energy and resources technologies, as well as manufacturing related to mining services and equipment, computer science and engineering. Mining production uses an increased level of automation and robotics now. Most people have very little idea of how complex this automation is, and how it will be even more so in the future.

There has been a national discussion about making our scientists and engineers the world's best in research and development of cutting-edge technologies that support not just Australia's mining sector but the global mining sector. We've already seen Australian mining equipment suppliers excel internationally. For example, Hoffman Engineering makes and exports its products and services around the world. Becoming the world's best is achievable, because we have a significant mining presence in activities that may not be resources extraction as such, but are related and can absorb some of the unused capacity and expertise. It doesn't mean that this will be a major source of job creation, but it will enable jobs growth across other sectors of the economy.

The main sources of jobs growth in mining have been in the construction of the mines, not the actual operation of them. And in the future, we're likely to see these mines operating with even fewer workers. The mines have also added value to the economy as a whole, allowing us to expand employment in other areas. By adding economic growth in this way, we create the opportunity to expand services and activities elsewhere in the economy.

What are the challenges and opportunities for the resource sector?

Apart from cost, a major challenge for the sector is environmental. Mining companies have a big part to play in seeking new, lower emission sources of energy and raw materials that would contribute more cost effectively to the sustainability of enterprises, not just in Australia but around the world.

Looking into the future, an opportunity and challenge is to develop a better understanding of China's policies about becoming a renewable energy economy. We may have passed the demand peak from China for raw materials, but there will be new and repeated peaks from other Asian countries like India and Indonesia – countries with large populations right next door. Without a doubt Indonesia will become a major trading partner for Australia – possibly an even bigger one than China at some point.

The mining sector needs to take account of the desires of the developed economies to operate more sustainably, and this will challenge the mining sector, particularly in the reliance on coal. As the world becomes less coal-dependent in the future, resources companies will need to think seriously about whether clean coal is a realistic technology or not, and what other alternatives merit consideration. There are many countries that will move to technologies that don't rely on coal at all. Even if it is not a concern for the next five or 10 years, it must be considered in the longer term.

As a nation, we really need to think through policies associated with the mining sector, and examine the relationship between our primary commodities and other areas of the economy. We should think about investing in raw material ecosystems together with other related areas of manufacturing and services, to create new capabilities and competitive advantage for the country.

What does the government need to do to support the resources sector?

Last year, the federal government established the Prime Minister's Manufacturing Taskforce, with manufacturing leaders and experts, which examined the future of manufacturing industry and its relationship to the resources sector. Earlier this year, the government published its response in the Plan for Australian Jobs, a report detailing measures around local participation in resources projects. However, what the government could have done is what President Obama's Advanced Manufacturing Partnership did in the US, identifying enabling technologies and capabilities of the future in which Australia can achieve competitive advantage. We simply can't be excellent at everything, but by being selective we can be the world's best at some things.

This doesn't mean we'd pick winners in companies to exploit those advantages, but we must inform ourselves through a technology foresight of those areas where we have the best chance of achieving competitive advantage in global markets and supply chains. As a nation, we seem more reluctant in Australia to do that compared with other countries, which know their strengths and do their utmost to build on them.

“ The mining sector needs to take account of the desires of the developed economies to operate more sustainably, and this will challenge the mining sector, particularly in the reliance on coal.

”

Feature interview

In higher education, what needs to happen for the next generation to be equipped for Australia's future?

Both major parties are committed to making Australia a more competitive and dynamic knowledge-based economy, but words are not enough. We know that the most successful economies in the world are committed to putting research and innovation at the forefront of everything they do. Some of these economies are resource-based economies that are making good use of their enhanced wealth, such as Norway and Canada, while others like Korea and Finland have no resources to speak of and recognise even more sharply their dependence on knowledge and ingenuity for future prosperity.

We need to create opportunities for a wide range of qualified graduates. And being a qualified graduate is not enough either, in a world where skills can be commoditised and offshored to lower-cost competitors. We need future graduates and employees who have a more creative, integrated view and understanding of their roles and the capacity to engage in teamwork and collaboration, as well as the application of entrepreneurship in new ventures and start-ups.

We need to move higher education into new spaces where we develop not just narrow, specialised skills but also essential boundary-crossing skills such as leadership, communication, critical thinking and problem solving. This could help us prepare for the next round of innovation and structural change in our economy, which can ideally position us with unique attributes in an increasingly globalised world, and that doesn't come cheaply. It means that we need to massively increase our investment in university education.

Currently, less than half of university funding is from public sources, while the rest is generated by fee-paying students and a small amount of industry collaboration. But that's not sustainable in the longer term and won't provide a basis for the future. It is remarkable and disappointing that a government elected with a clear commitment to higher education has ended up with a level of funding per student no more than when it started. We will await with interest any new commitments that may be announced during the forthcoming election campaign by Prime Minister Kevin Rudd and opposition leader Tony Abbott, but the challenge for the next government should be clear.

“

We will see some bounce-back in productivity over the next year, but it won't be enough.

”

Roy Green BA LLB (Adelaide) PhD (Cambridge) is Dean of the UTS Business School at the University of Technology Sydney. He gained his doctorate from the University of Cambridge and worked subsequently in universities, business and government in Australia and overseas.

Roy has published widely in the areas of innovation policy and management. He has also undertaken projects with industry and public agencies such as the OECD and European Commission.

Roy has served in a number of public policy roles including chair of the Australian Government's Innovative Regions Centre and CSIRO Manufacturing Sector Advisory Council and as a member of the Enterprise Connect Advisory Committee. He conducted the Review of the Textile, Clothing and Footwear Industries in 2008 and led Australian participation in a global study of management practice and productivity in 2009.

Last year, Roy joined the PM's Manufacturing Taskforce, convened the CSIRO's Design integration Network and was appointed to the new Manufacturing Leaders Group.



A skills crisis no longer

A contracting labour market and increasing job cuts

One of the biggest shifts in this year's *Mining Business Outlook Report* is the notable change in job vacancy rates within the sector.

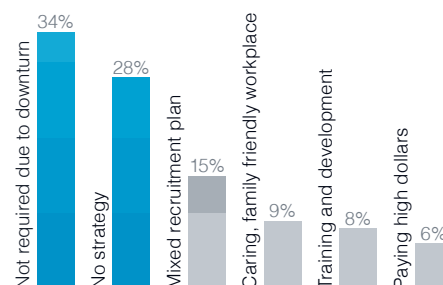
Last year when we conducted the report, one-fifth of the companies interviewed had high job vacancy rates and were struggling to find people with the right skills for the jobs available. This has sharply dropped to only 3 per cent of the companies interviewed this year.

The tables have turned, with more than half of the companies (53 per cent) that participated in this study having very low vacancy rates, a 17 per cent increase on last year's figures.

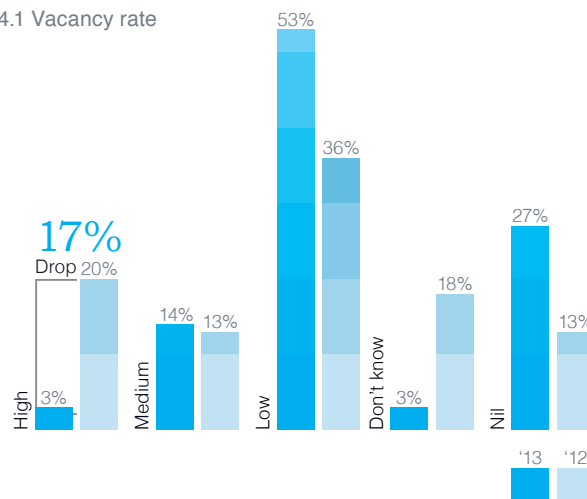
This shift is further supported by the findings around miners' strategies for labour management and the skills shortage. More than half of mining leaders interviewed (62 per cent) confessed that they don't have a strategy, as there is no longer a skills shortage due to the downturn in the sector.

For those who do have vacancy rates still and continue to recruit, local and overseas recruitment is a key part of the strategy (15 per cent). The remaining 23 per cent appear to be focused on staff retention, by creating a caring work environment, offering more training and development and remunerating well.

4.0 Strategy for labour management and skills shortages



4.1 Vacancy rate



Environmental regulation impacts

Yes, the environment is on the radar, but red tape is taking its toll

This year for the first time we asked mining leaders to comment on the impact of environmental regulations and requirements on their operations.

We received a mixed response – 55 per cent of mining leaders are proactively investing time and resources to protect the environment, while 33 per cent of leaders said they're approaching environmental issues with caution. These businesses recognise the need to do something about the environment, but by doing so they are placing significant pressures on existing resources, and straining their operations as a result.

A slim 13 per cent of leaders reported a pragmatic approach to managing the environment, taking some action but only the bare minimum required.

The leaders interviewed were forthcoming with their views on the impact of various environmental regulations on their operations. An overwhelming majority reported sharp increases to their operating costs and additional pressure on their resources (53 per cent).

For 27 per cent of the mining leaders interviewed, strict environmental regulations and restrictions will result in investment decisions being delayed, and 20 per cent reported already long delays in mine developments as a result of the environmental regulations that exist.

Our interviews indicate that there is a willingness by mining companies to address environmental issues in their business and operational planning, and a recognition that more could be done. But for reasons such as increased costs and delayed investment decisions, some mining companies are worried about achieving the right balance between business survival and doing more for the environment.

Approach

Leaders on how they're approaching environmental issues

55%
Proactively

33%
Cautiously

12%
Pragmatically

Impacts

Leaders on the impacts of extensive environmental constraints

53%
Increased costs and demand

20%
Operational and development delays

14%
Protracted investment decisions

13%
Less investment and growth

Leader insights

“ Environmental constraints are causing long delays in mine operation developments and expansions. ”

“ We are seeing less investment and growth as a result of environmental constraints, which will have a long term knock-on effect. ”

“ We are very involved with the community and their efforts to improve the environment. It is expensive and very challenging but we don't see any other way of handling the requirements. ”

“ We recognise the need to protect the environment, but the demands and constraints are now causing major delays in mine operation developments which already do and will continue to affect investment decisions. ”

“ Environmental issues should be addressed in a pragmatic manner which recognises a sensible approach to the overall environment but also allows industry to effectively contribute. Too much regulation and restriction will inevitably lead to less investment and less growth. ”

Feature interview

Brendan Cannon
Director of Firewall Logistics

As an executive of a mining services company in an emerging mining market like Papua New Guinea (PNG), what are your views on Australia's mining sector?

I think emerging frontier markets such as PNG will continue to benefit from the current difficult operating conditions that mining companies are experiencing in Australia. As the mining boom eases, the real state of Australia's productivity challenge will be exposed. Unless all areas of the economy pull together to improve productivity performance at a micro level, industries will continue to suffer – not just manufacturing but also mining and mining services, which in turn will have a ripple effect on the economy.

What are the mining sector's biggest challenges and opportunities at a time when there is significant increase in mining investment into alternative mining markets such as PNG?

The main challenge is the economics associated with working within the Australian environment, which in itself presents a huge hurdle for companies considering major investments in new projects. The recent volatility of commodity prices has also affected ongoing growth of these projects as established projects continue to consolidate costs to secure the minimum return on investment for the business.

Australia will always find it a challenge to compete on production costs with the extraction and processing of raw materials in comparison to other resource-rich countries. You just need to look at Exxon Mobile, which has recently been contemplating an AUD \$19 billion expansion of its Papua New Guinea liquefied natural gas (PNG LNG) project. You would be challenged to find a similar story of project expansion within the Australian LNG sector to compare it to.

In Australia, mining projects appear to be constantly under budgetary pressure. That is not to say these pressures are isolated to Australia's mining sector, but it appears that there is more positive energy than there are negatives concerning PNG's resources landscape right now, about exploration activities such as the PNG LNG project.

What is the landscape like in PNG?

The landscape for exploration and investment is outstanding and PNG will continue to grow as a frontier destination for global mining investment, projects and development. PNG is experiencing an unprecedented period of growth, development and activity. There are a number of reasons for this, including less red tape than in developed countries like Australia, not as many mining taxes, and a more business-friendly environment.

I also think in the past companies have perceived markets like PNG as high-risk and dangerous. In the case of PNG, this has changed dramatically over the last 10 years and has coincided with an increase in foreign investment in mining projects as well as other logistics and business activities. The ongoing engagement of the Land Owner Group and consistent dialogue allows all stakeholders, including resources companies, a clear and transparent basis for the working relationship.

The growth in the mining sector on its own is contributing to the development of PNG as a safe place to conduct business. With the growth of the mining sector, mining company procurement is also an important market for other PNG businesses. Mining also supports many jobs in other sectors and provides training and work force skills as well as social and economic investments in communities across Papua New Guinea.

What should the next Australian Government do to support the mining sector?

The government could make the mining sector a more viable mining investment destination by introducing company tax breaks, and eliminating mining taxes such as the MRRT tax. The PNG government by comparison is more proactive in not only securing investment in projects but also working with companies closely to conduct their business in a sustainable, environmentally and community-friendly way. The PNG Government has an investment mandate where it takes an equity partnership in all exploration activities in PNG.

What is the state of play in PNG from a Government and regulatory standpoint?

PNG is a business-friendly country in part due to the government positioning itself as very approachable. There is no doubt that PNG is still an emerging market and a country that has developed workable business policies and a regulatory framework. There have been considerable improvements in this area, and the present political stability of the O'Neill-led PNG Government adds to this comfort for all businesses currently working in PNG.

What does the future for PNG look like as a place for doing business? What should companies consider when embarking on business activities in PNG?

By working in a country such as PNG you learn quickly the importance of stakeholder engagement and ongoing interaction with a range of parties, from landowners to relevant government departments and the community, to effectively ensure that you are not only working with them but also contributing to the country and its people.

Through community affairs programs, supporting government policies, and sponsoring professional development of the local people, the legacy of your project will last long after the project has been completed. The enhancement of the quality of their lives, not over-complicating their existence but ensuring with government support that they have access to suitable medical care and community programs, is mandatory.

PNG is not immune to challenges but it is how you engage, interact and support the local community, its people and the country will allow you the greatest chance of operational and production efficiency. PNG is a stunning country that presents attractive exploration opportunities for all parties if you come with the mindset of interaction and engagement.

“

The landscape for exploration and investment is outstanding and PNG will continue to grow as a frontier destination for global mining investment, projects and development. PNG is experiencing an unprecedented period of growth, development and activity. There are a number of reasons for this, including less red tape than in developed countries like Australia, not as many mining taxes, and a more business-friendly environment.

”

Brendan Cannon has successfully combined a professional and sporting career with more than 20 years' of experience in business and an elite sports career that spans 15 years. As Director of Firewall Logistics, a Papua New Guinea based resources logistics services company, Brendan is responsible for business strategy, business development and corporate governance.

Prior to joining Firewall Logistics, Brendan held a number of senior corporate roles including National Account Manager for ASX listed property group, Charter Hall, National Business Development Manager for global engineering firm, The Robert Bird Group and more recently in Project Management for mining giant Xstrata Coal.

Apart from his business acumen, Brendan is respected for his project management, leadership and highly effective negotiation skills. Through his work in PNG, he has gained an appreciation of dealing with a range of stakeholders from local communities to government officials. As a result, he commands highly effective communication skills.

Brendan is also widely recognised for his professional Rugby Union career where he represented the Australian Wallabies.



Advice to Canberra

Dissatisfaction remains supreme

It is evident from the mining leaders interviewed that there continues to be wide discontent surrounding the government's failure to adequately support the sector over the last 12 months – a time when mining has faced some of the most significant challenges in a long time and needed real government support.

Dissatisfaction with the strength of the unions and inflexible IR regulations also rose sharply in this year's report. Last year, only 7 per cent of the mining leaders interviewed voiced this concern in their advice to Canberra. By contrast, the unions and IR were the main government gripe this year for 27 per cent of mining leaders, and second on their list of concerns.

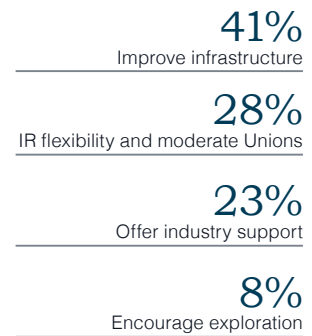
Mining leaders also issued a strong call for the government to strengthen national infrastructure this year. Last year, only 7 per cent of leaders expressed their disquiet on infrastructure issues and this has doubled to 14 per cent this year. When asked what should the government focus on to support the sector, close to half the mining leaders interviewed (41 per cent) called for more adequate provision of national infrastructure, again demonstrating consensus within the industry that the issue is a serious and timely one.

A new viewpoint to emerge from this year's report is a call from mining leaders for the government to create a long-term vision for the sector, in place of its recent reactionary and ad-hoc approach. Mining leaders strongly believe that a more secure and stable government and policy framework will deliver more certainty for the economy and benefit the sector. They continue to be disappointed with the political rhetoric that has come from Canberra that the resources sector is a burden on Australia that causes more problems than it solves.

Miners continue to urge the government to take a more positive, proactive and supportive leadership role within the sector, with 28 per cent saying this would help build confidence and secure a brighter resources future. The government has also been called on to create a more consistent and flexible national approach to IR regulation while reducing the involvement of unions within the sector.

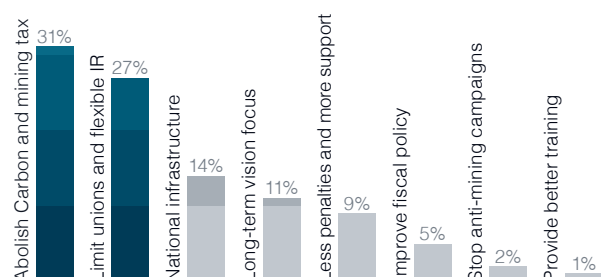
Government

Leaders on the future government's role for the sector



A new viewpoint to emerge from this year's report is a call from mining leaders for the government to create a long-term vision for the sector, in place of its recent reactionary and ad-hoc approach.

5.0 Advice to Canberra



Leader insights

“ We would like to see a government more attuned to and involved with the industry so they would better understand the needs of the industry. ”

“ The current IR rules and regulations are counterproductive to building trust. Productivity is the key. Please assist us rather than prohibit us in these areas. ”

“ We want flexibility with our employees and financial stability so we can plan effectively. Right now we have neither and are not confident about the future. ”

“ We would like to have a government that sets out to get behind us and help, especially in areas like exploration. ”

“ We need stability and direction on infrastructure, skills training, IR flexibility and a reduction in the non-value added taxes which make us internationally less competitive. ”

“ We add a lot of value and income to Australia and we put a lot of money at risk. In some instances we get good returns but more often we incur substantial losses – they need to be mindful of this. ”

Research

Research, design and analysis for the *Mining Business Outlook Report* was conducted by Manning & Co, and fieldwork by Newport Consulting.

Our research is based on one-on-one interviews with 60 leading mining executives at a number of companies across the resources sector. The interviews were conducted, so that we could gain a personal view and detect underlying motivations, beliefs, attitudes and feelings on a range of areas and subjects.

We asked the following questions:

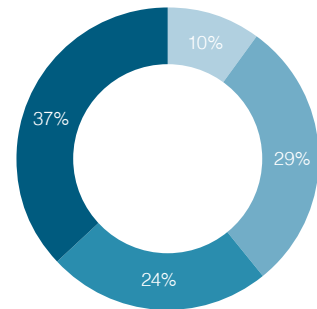
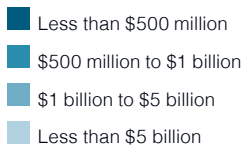
1. How optimistic are you about future growth and business in 2013-2014 and why?
2. Will you increase capital spending and investment this financial year? If yes, by how much? If not, why not?
3. What are the key challenges that your company faces in the year ahead?
4. How do you view productivity in relation to your mine's performance? Please elaborate. Are there any perceived barriers to achieving productivity? How do you plan to measure it?
5. What is your vacancy rate at the moment? What are your recruitment strategies to address the skills shortage?
6. What is the single piece of advice you would like to offer to Canberra?
7. What do you see as the impact of changing commodity prices on the performance of your mine?
8. What should the government's role be moving forward in relation to the sector?
9. What is the sector's role and how can business function with so many environmental constraints?

The responses were then coded by Manning & Co into key categories.

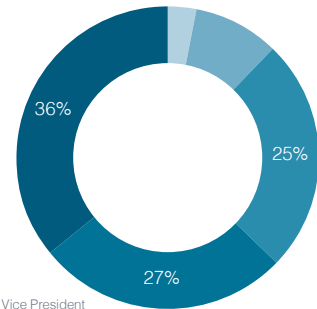
About our survey

More than 60 mining leaders participated in this study

6.0 Company size

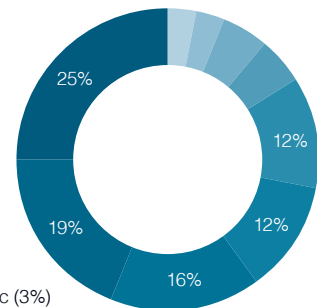
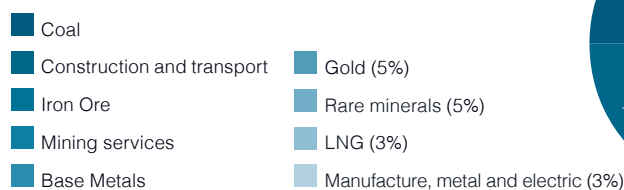


6.1 Position



*Or Vice President

6.2 Sub-sector





About Newport Consulting

Newport Consulting is an Australian-headquartered operational management consultancy that focuses on achieving operational excellence for corporates. We work extensively in the mining sector, having delivered measurable and sustainable operational improvements to a number of mining projects across the country.

Australia

2/74 Reservoir Street
SURRY HILLS NSW 2010
Phone +61 2 9211 1424
www.newportconsulting.com.au

South Africa

377 Rivonia Boulevard
RIVONIA 2128, SOUTH AFRICA
Phone +27 11 275 0088
www.newportconsulting.co.za

New Zealand

Level 3 Queens Arcade
34-40 Queen Street
AUCKLAND 1143
Phone +64 9 282 4026
www.newportconsulting.co.nz

Singapore

4 Shenton Way
#28-03 SGX Centre 2
SINGAPORE 068807
Phone +65 9182 2499
www.newportconsulting.com.sg