



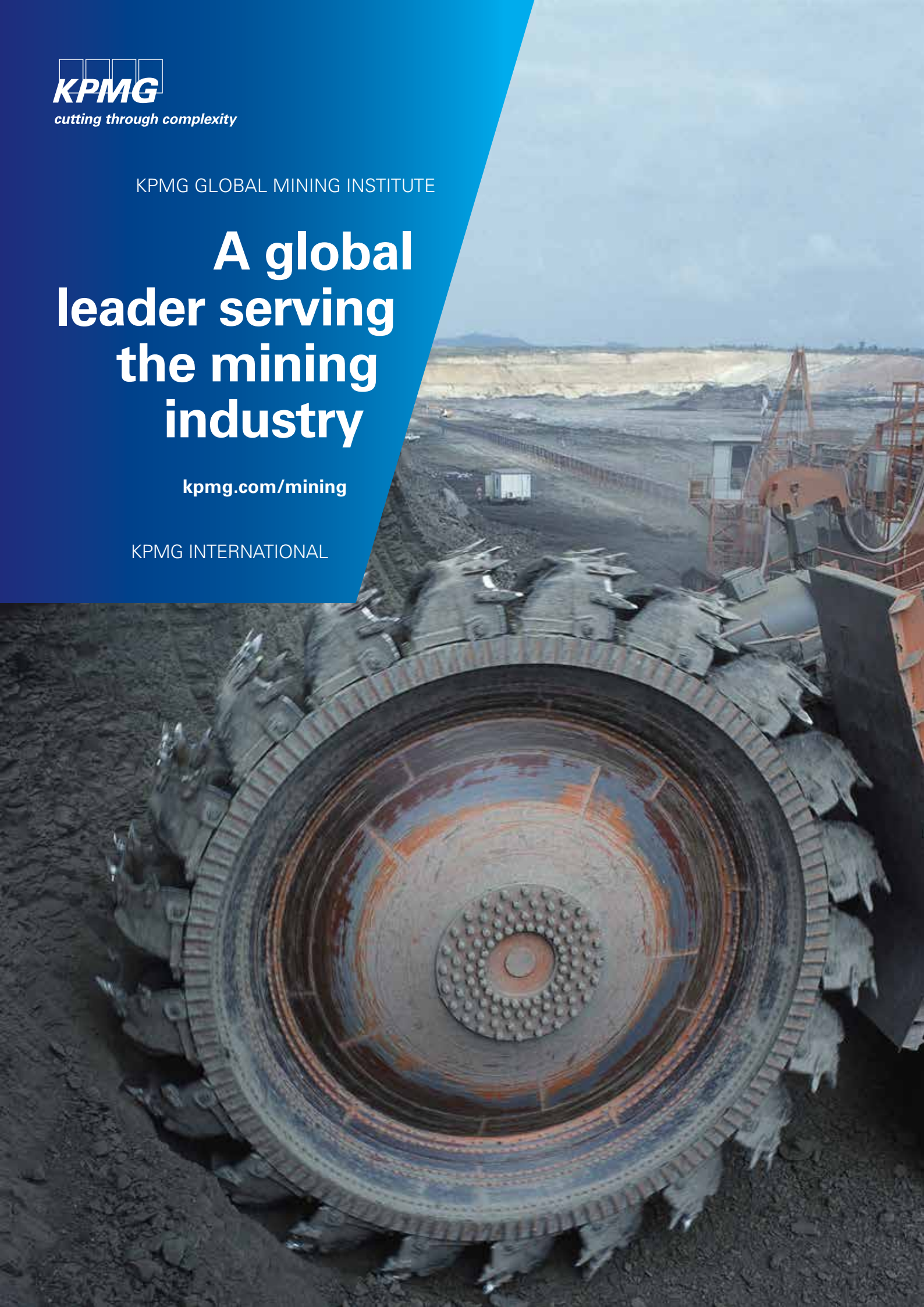
cutting through complexity

KPMG GLOBAL MINING INSTITUTE

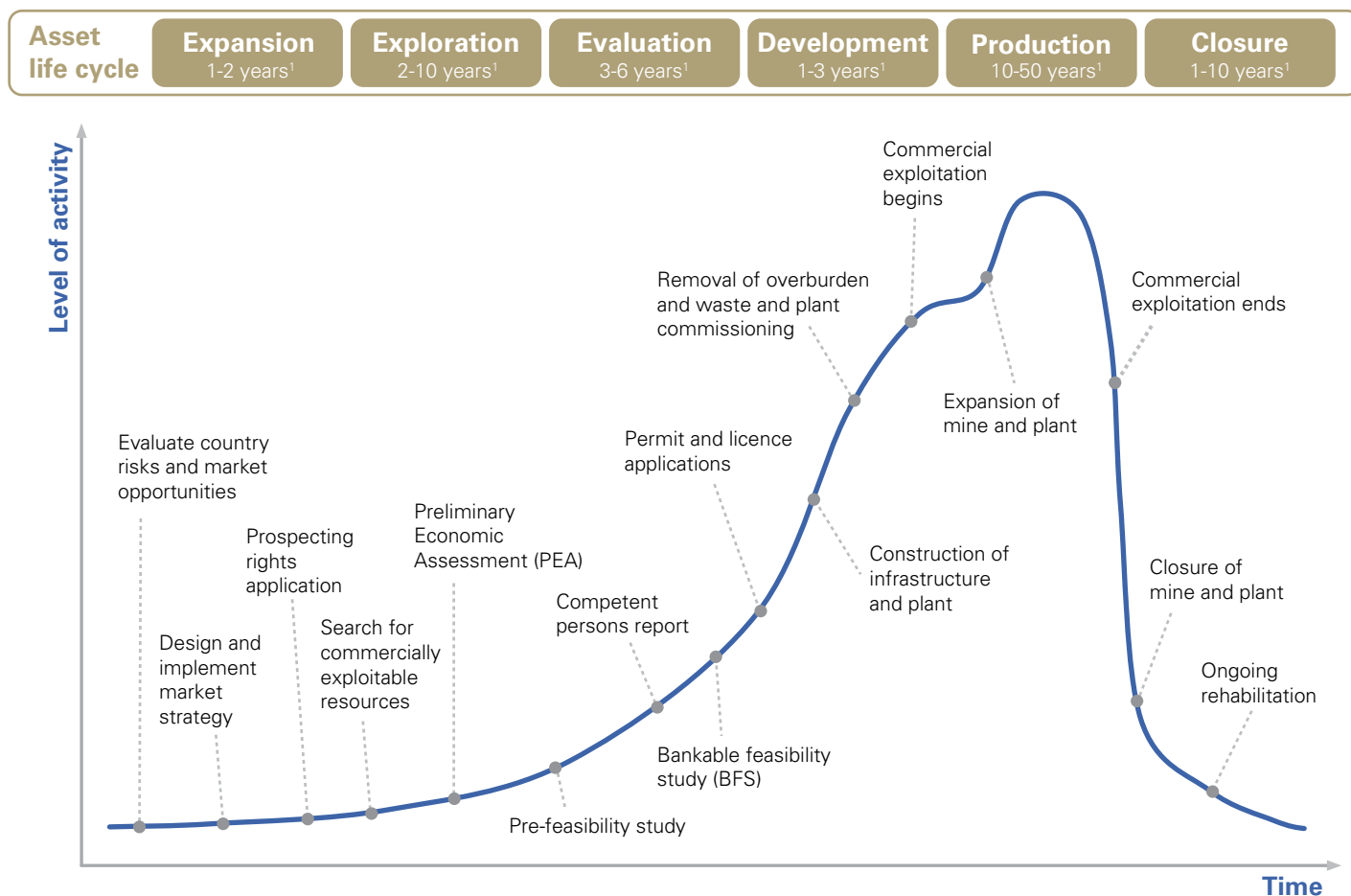
A global leader serving the mining industry

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KPMG INTERNATIONAL



Mining asset life cycle



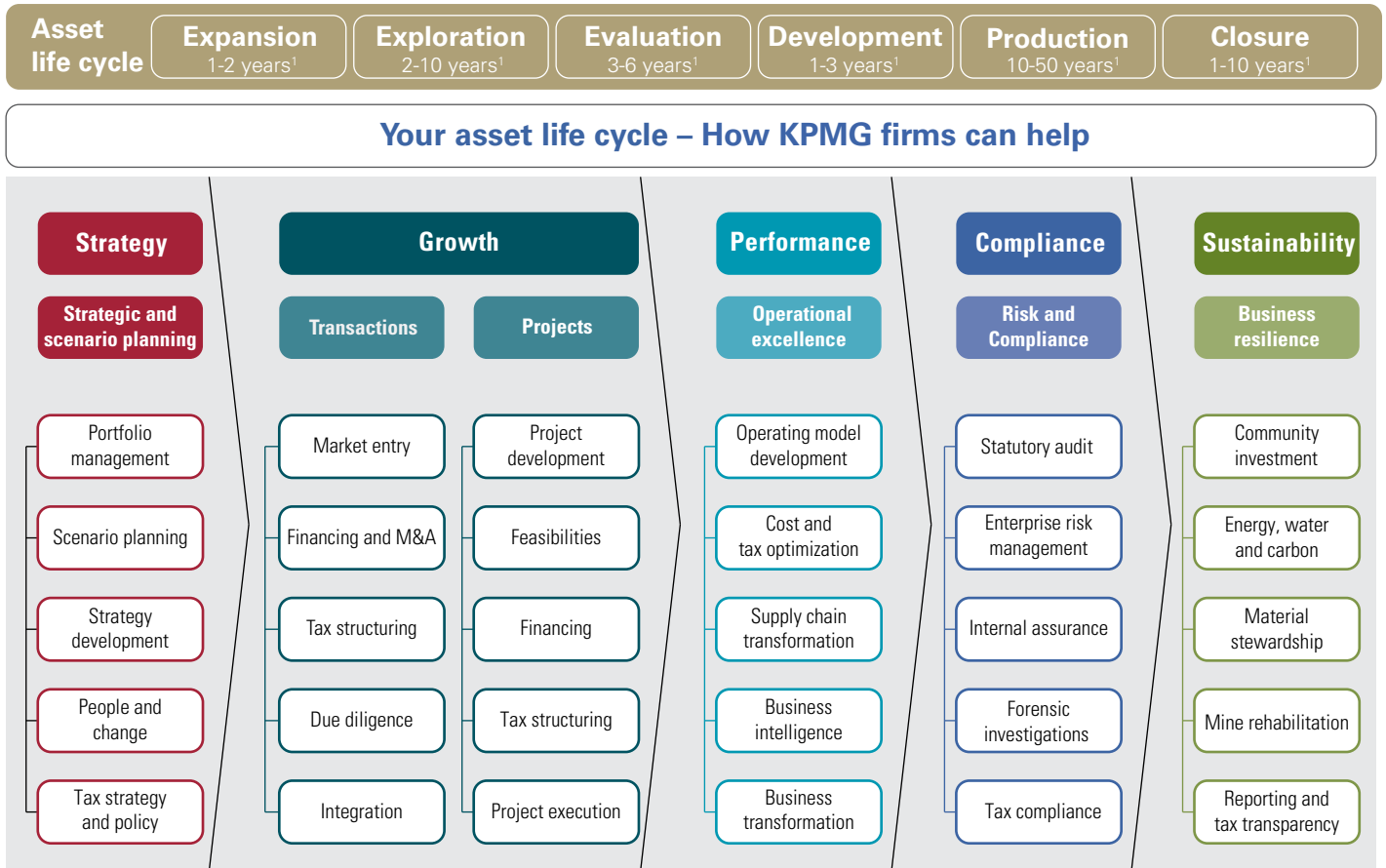
Source: KPMG International 2012

¹Estimated duration of stage in the mining asset life cycle

As mining companies move throughout the mining asset life cycle, an organization encounters different challenges in order to maintain growth and profitability.

KPMG member firms' mining specialists can assist clients throughout the mining asset life cycle. Our people are deeply experienced in the industry and are knowledgeable of local laws, customs and practices and aware of the challenges faced across the life cycle.

KPMG mining service offerings



Source: KPMG International 2012

¹Estimated duration of stage in the mining asset life cycle



■ Key industry issues

Social license to operate

Mining organizations increasingly need to gain a social license to operate and to understand local needs and address concerns about access to water and land, environmental safety, poor social and economic infrastructure, poverty and high unemployment. These concerns should be addressed before approvals are obtained for permitting and licensing projects and there are numerous instances where projects have been delayed due to community action. A collaborative approach with governments and communities is seen as key to mitigate this risk and a real need for social teams to prepare the way for entry into a new market.

Contract management

Contract Lifecycle Management is becoming increasingly important for resource companies who are looking to ensure timely project delivery, reduced risks and better managed costs. Choosing owner-based mining or contract mining becomes a critical area for mining companies as they focus on improving ore quantities and grades at lower production costs.

Trans-frontier corridor development

A number of new and potential projects have complex infrastructure challenges requiring road, rail and port infrastructure development in countries outside of where the mining activity takes place. This brings with it a range of new intergovernmental, community and joint venture partner challenges which could delay the timely commissioning of projects and have an impact on future operations.

Integrated production planning

Mining and processing operations are not often closely aligned. With separate management teams, budgets, cost centers and operational targets, there is relatively little communication between them. Therefore, integrated production planning (IPP) is an approach which brings together the mining and processing functions and creates higher efficiency through better planning, administration, communication and execution. Maintenance time is reduced with equipment and vehicles being frequently used and increased frequency of breakdown and accidents.

Single commodity risk exposure

While facing the ongoing fiscal crisis, within the mining resource portfolios, there are winners and losers. Manufacturing and production generally may have slowed down with knock-on effects on steel and copper, however, the gold markets have been bolstered by the finance communities' regard for gold as a safe haven, hence the price has remained relatively buoyant. For instance, copper can be regarded as a thermometer product – one of the first to be impacted by and to recover from recession, while other commodities respond later in the economic cycle.

Cost optimization

Mining operations are capital intensive and require significant daily cash outflow, with the majority of capital expenditure for mining equipment either owned or leased. Reviewing and optimizing the asset portfolio and operation can help with this and reduce costs. This reduction in equipment costs can provide a competitive edge. In addition, contractors can help reduce costs and make significant savings by providing specialized leasing



What sets KPMG apart? ■

KPMG member firms leverage **capabilities, methods and knowledge** across the world to enable clients to access deep industry content and subject matter experts that understand the industry.

services for mining equipment. This leasing out from an original equipment manufacturer (OEM) through a service and supply contract can help the miner implement its strategy at a lower cost.

Security of power supply

Mining operations are typically energy intensive and located in remote areas, sometimes with limited grid connectivity. In many countries, electricity supply has been under pressure due to under investment in new infrastructure and backlogs in maintenance. This has resulted in power outages becoming increasingly common. Mining houses have resorted to increased reliance on diesel generators which are very expensive to operate at current oil price levels and are also considering investing in base-load power plants of their own, which may be owned and operated by the mining company and/or third parties.

Lack of skilled man power

The mining industry is facing a shortage of skilled manpower with part of this challenge is workers, disinclination to relocate to remote regions. There is also an increase in costs due to certain

arrangements, such as the fly-in/fly-out (FIFO) arrangement currently used in Australia. The implications are clear and companies will need to make higher investments for training of employees.

Cost of carbon

A number of unique features of the mining sector should be evaluated when considering the design of carbon pricing mechanisms. The natural constraints posed by shrinking ore deposits for commodities such as gold imply that mining companies now have to go deeper for the same level of output. Consequently, a relative mechanism that places a blanket carbon price per unit of output may not be immediately relevant, as companies will need to expend greater amounts of energy and hence carbon emissions to achieve the same level of output. A benchmarking approach may be more appropriate. The mining industry is generally highly exposed to international trade, which implies that different levels of carbon pricing across regions can lead to potentially significant competitiveness concerns for national industries. The design of national schemes therefore should account for these potential cross border concerns.

Resource nationalism

As governments continue in their attempts to increase control over natural resources, this becomes and stems from a concern that a region will work to conserve it's resources, in addition to demanding a higher share of the mining revenues. There is a slight decline of investor confidence with companies that do operate in these regions and in addition to governments increasing their share in mining profits; this leads to difficulty to accurately forecast production schedules, understand long-term risk profiles or develop models to guide decision making over time.

Assurance function

Companies are looking towards initiatives such as business re-engineering and cost optimization in order to protect their shareholder value. During turbulent times, shareholders, boards and C-level executives need greater confidence in their strategic decisions and an increased assurance against business threats and compliance obligations. Thus, an enhanced assurance function is required to aid in such confidence.

Our involvement and commitment to the industry

2014 Joburg Indaba

Investing in Resources and Mining in Africa

Joburg Indaba garners tremendous media attention and industry traction, and allows for genuine debate and exchange of views from a mix of strategic thinkers, mining CEOs, and financial investors. Attendees engaged in a no holds barred, blunt, constructive dialogue, balanced by poignant audience participation on hot topics affecting the mining industry in Africa.

2015 Mining Indaba¹

South Africa's premier mining event, Mining Indaba™, takes place each year in Cape Town, South Africa. KPMG member firms have an on-the-ground presence, allowing participants to have first-hand conversations with a number of KPMG mining professionals.

Africa Downunder

KPMG in Australia, in conjunction with KPMG's African member firms, participates in the Africa Downunder Conference each year, which takes

place in Perth, Australia. As trade grows between the continents of Australia and Africa, our KPMG member firms on both sides of the Indian Ocean have established a team focusing on investment in this important region. Apart from presenting companies, the event is generally attended by several African Mines Ministers, business leaders and executives from the mining services industries. The event builds our reputation as the best melting pot for business conducted between the two continents.

Diggers and Dealers

Diggers and Dealers is a leading mining conference for listed mining and exploration companies in Australia, featuring both an in-depth conference program and exhibition. The three day event held each year in Kalgoorlie, Western Australia, has grown from just 150 in 1992 to over 1,500 participants in 2014 and has attracted industry speakers from every corner of the mining industry. KPMG will have an 'on the ground' presence at Diggers and Dealers, providing an opportunity for participants to meet with members of our Australian

mining practice who come from an array of specialties.

KPMG's Annual Mining Executive Forum

KPMG's Annual Mining Executive Forum, provides mining executives with an opportunity to discuss some of the most topical industry issues and hear from industry leaders. The 2-day event, usually held in September, contains plenary sessions which provide a fresh perspective on topical issues and breakout sessions allowing participants to discuss the 'nuts and bolts' of mining. The Forum provides mining executives with the opportunity to network with peers and participate in interactive and informative sessions, presented by industry leaders.

2015 Prospectors and Developers Association of Canada (PDAC) Convention

The PDAC International Convention, Trade Show & Investors Exchange is the world's leading convention for people,

¹ Mining Indaba is a trademark of Euromoney Trading Limited



companies and organizations in, or connected with, mineral exploration.

The 4-day annual Convention held in Toronto, Canada, has grown in size, stature and influence since it began in 1932 and today is the event of choice for the world's mineral industry. In addition to meeting over 1,000 exhibitors, 25,122 attendees from over 100 countries, it provides an opportunity to attend technical sessions, short courses as well as social and networking events. KPMG is a proud Premier sponsor of this convention.

Mining & Investment Latin America Summit

Mining & Investment Latin America Summit focuses on mining investment and efficiency strategies in Latin America, bringing together mining companies; companies with mining assets in Latin America; local, regional and international investors and financial service providers. KPMG is a proud sponsor for this summit.

International Mining and Resources Conference (IMARC)

IMARC is one of Australia's truly international mining event. Uniting the entire mining industry, IMARC is where mining leaders, policy makers, financiers, technical experts, innovators and educators are brought together under one roof.

IMARC 2014 CONNECTS

- Australia's major outbound mining project developers to mining ministries from around the world
- Inbound mining investors and developers with Australian national and state governments
- Asia's resource buyers with Australian producers
- Global mining investors with mining investment opportunities
- Mine developers and managers to technical innovation and efficiency solutions
- Geologists and mining engineers with providers of cutting-edge technical expertise

Leadership and industry insight

Leading the field means more than just having a strong client base. KPMG member firms provide services to many of the world's leading mining companies. Being a leader also means investing in thought leadership, spearheading industry debates to help keep clients at the forefront of progressive thinking, and giving our people the skills and knowledge to provide the quality and customized services member firm clients require.

KPMG's mining centers

KPMG member firms offer global connectivity through our 14 dedicated mining centers in key locations around the world, working together as one global network. They are a direct response to the rapidly evolving mining sector and the resulting challenges faced by industry players.

Located in or near areas that traditionally have high levels of mining activity, we have centers in Beijing, Brisbane, Denver, Johannesburg, London, Melbourne, Moscow, Mumbai, Perth, Rio de Janeiro, Santiago, Singapore, Toronto and Vancouver. These centers support mining companies around the world, helping them to anticipate and meet their business challenges.



KPMG member firms provide **professional services** to **75 percent** of the **Mining** companies in the FT Global **500** list.

(Source: FT Global 500 published in March 2013)

KPMG professionals

2,000 mining professionals

14 dedicated mining centers

11 countries

Source: Q3 FY14 Headcount Figures Reported by Global Finance

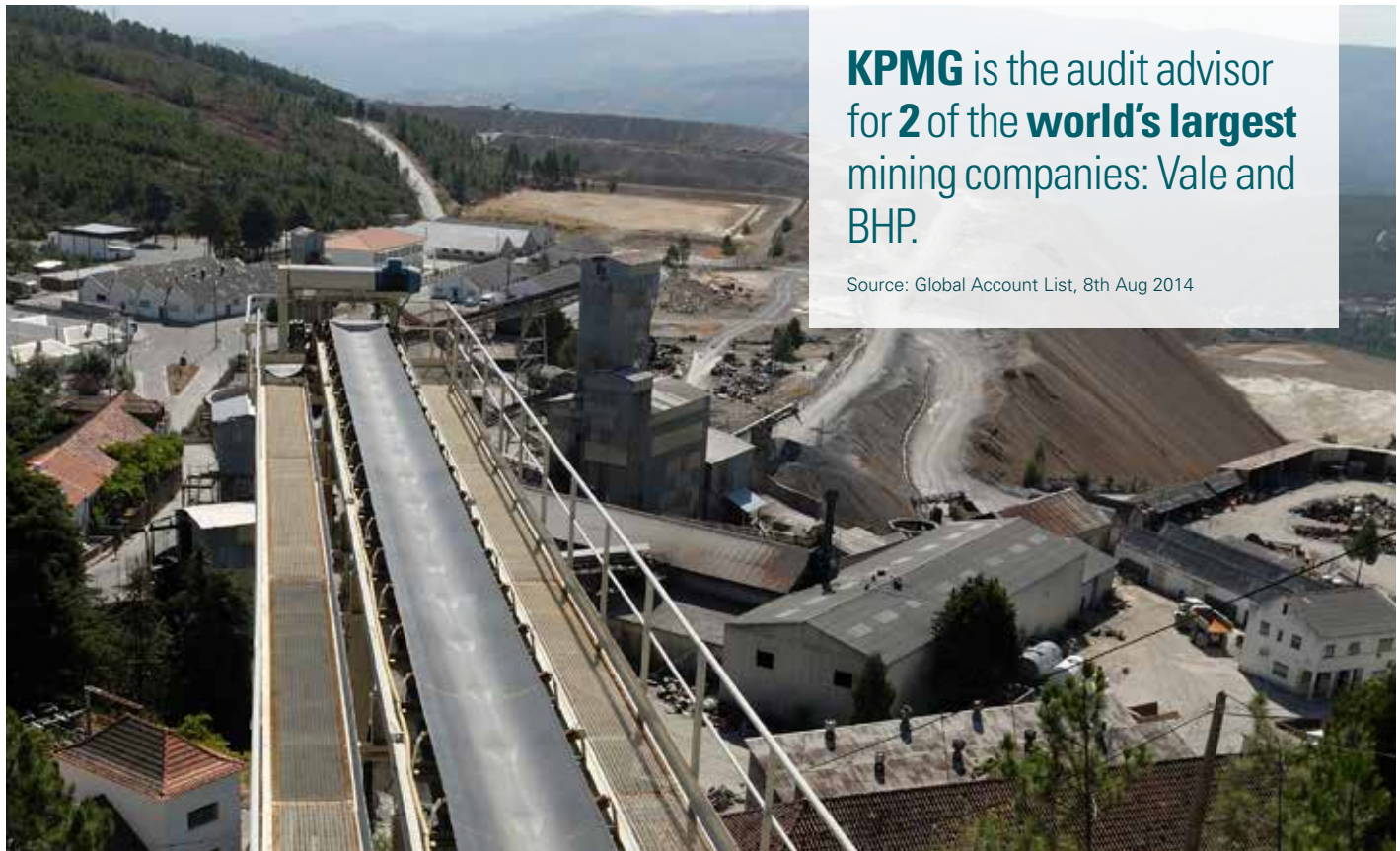
KPMG – Your trusted advisor

KPMG's Global Mining practice provides member firm clients with a diverse range of audit, tax and advisory services, please find below a sample of clients serviced by KPMG member firms across the globe.

KPMG's Global Mining Clients include:

| | | |
|----------------------------------|---------------------------------------|----------------------------|
| African Rainbow Minerals Limited | Freeport McMoRan Copper & Gold, Inc. | |
| A J Lucas Group | Fresnillo PLC | New World Resources |
| ALS Chemex De Mexico | Gold Fields Limited | Newcrest Mining Limited |
| Anglo American | Goldcorp Inc. | Newmont Mining Corporation |
| Anglo Platinum Ltd | Grupo Vale | Nippon Mining Holdings |
| Barrick Gold Corporation | Harmony Gold Mining Company Ltd | Norilsk Nickel |
| BHP Billiton Limited | Impala Platinum Holdings Limited | Norsk Hydro ASA |
| Boart Longyear | Industrias Peñoles | Orica |
| Brazilian Resources Inc. | Jaguar Mining Brazil | Oz Minerals Limited |
| China Shenhua | Kazakhmys PLC | Peabody Energy |
| Cliffs Natural Resources | KGHM Polska Miedz S.A. | Rio Tinto |
| Codelco | Kinross Gold Corporation | Sandvik Australia |
| Coeur Argentina S.R.L. | Koksownia Czestochowa Nowa Sp. z o.o. | SUEK PLC |
| Coeur d'Alene Mines Corporation | Kuzbasrazrezugol | Sumitomo Corporation |
| EBX Brasil S/A | Minera Roca Rodando | Teck Resources Limited |
| Eldorado Gold Corporation | Lonmin PLC | Vale |
| Exxaro Resources Limited | Mosaic Company | |

Source: Global Approved Client List September 2012



KPMG is the audit advisor for **2** of the **world's largest** mining companies: **Vale** and **BHP**.

Source: Global Account List, 8th Aug 2014

Leading the field with industry insight

KPMG member firms offer a diverse range of audit, tax and advisory services to many of the world's leading mining companies; however, being a leader means more than just having a strong client base.

We invest in thought leadership and spearhead industry debates to help keep clients at the forefront of progressive thinking. Our KPMG events and forums, as well as our support and participation in well-regarded industry events, enables member firm professionals to discuss industry issues with leading participants.

The KPMG Global Mining Institute features thought leadership and webcasts that provide insights into current issues and emerging trends.

Being at the forefront also allows KPMG member firms to give our people the skills and knowledge to provide the quality and customized services that clients require.

For more industry insight, please visit our Global Mining Institute kpmg.com/mining



Strategy Series

Country mining guides

This series of country guides provides an overview of the mining industry from a geographical, economic and legislative context. These country guides are invaluable for those already operating or considering an investment in a particular country.



Growth Series

Growth in a time of scarcity: Managing transactions in the mining sector

This guide is the first in a series that discusses how mining companies can best navigate the asset life cycle and covers the five key elements of the transaction phase: geographic expansion, financing and mergers and acquisitions, tax structuring, due diligence and integration.



Mining projects: Seeking greater value

Major projects are complex and time-consuming and success or failure is often determined by the degree to which they are aligned with company operations and strategy.

This publication considers the issues facing mining companies across the mining project life cycle, especially those who wish to develop new mines or expand existing ones.



Compliance Series

Mining risk and assurance: A survival strategy

Faced with falling commodity demand and prices and a continued escalation of input costs, mining companies are experiencing declining margins. A series of major project failures has also put risk management under the microscope.

Based on interviews with several partners from KPMG member firms, this paper identifies eight key drivers of value – from strategy to sustainability and reputation to taxation – and examines the risks inherent in each of these areas. In order to survive and prosper, organizations should adopt a holistic, integrated risk and assurance strategy that enables them to become masters of risk, rather than victims.



Performance Series

From volume to value: Cost optimization in the mining sector

This report looks at nine different levers that mining companies need to consider when implementing cost optimization programs to sustain profitability in today's more challenging economic environment.



KPMG's Mining Operational Excellence Framework

KPMG member firms have developed their own operational excellence framework following several years of association with leading mining companies. It starts off with an organization on a journey of efficiency and then, over time, embeds characteristics in its organization that makes the change sustainable over business cycles. This puts together all the capabilities necessary to assure the CEO of that 'operation' will be able to adapt to support their hunt for the next opportunity, whatever its nature.



Sustainability Series

Valuing social investment in mining

This report discusses how strategic investments in communities should create value for both the beneficiary and the investor. By taking a strategic approach to corporate social responsibility, mining companies can maximize the impact of their social investment.



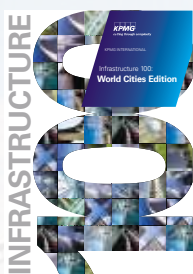
Commodity Insights Bulletins

A series of bulletins focusing on key mining commodities. Each bulletin is aimed to provide insight into trends and changes within commodity sectors. Our key mining commodities include: Gold, Copper, Diamond, Iron Ore, Metallurgical Coal, Nickel, Platinum, Thermal Coal, Uranium and Zinc.



INSIGHT: Population

This edition of Insight explores some of the biggest infrastructure challenges related to population growth. It also features a Special Report on Asia Pacific, a region at the center of the demographic shift now underway.



Infrastructure 100: World Cities Edition

Released at the World Cities Summit in Singapore by KPMG's Global Infrastructure practice, the Infrastructure 100: World Cities Edition provides insight into the infrastructure projects that make great cities, with a particular focus on the innovations that make them 'Cities of the Future' – places where people want to live and do business.

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