

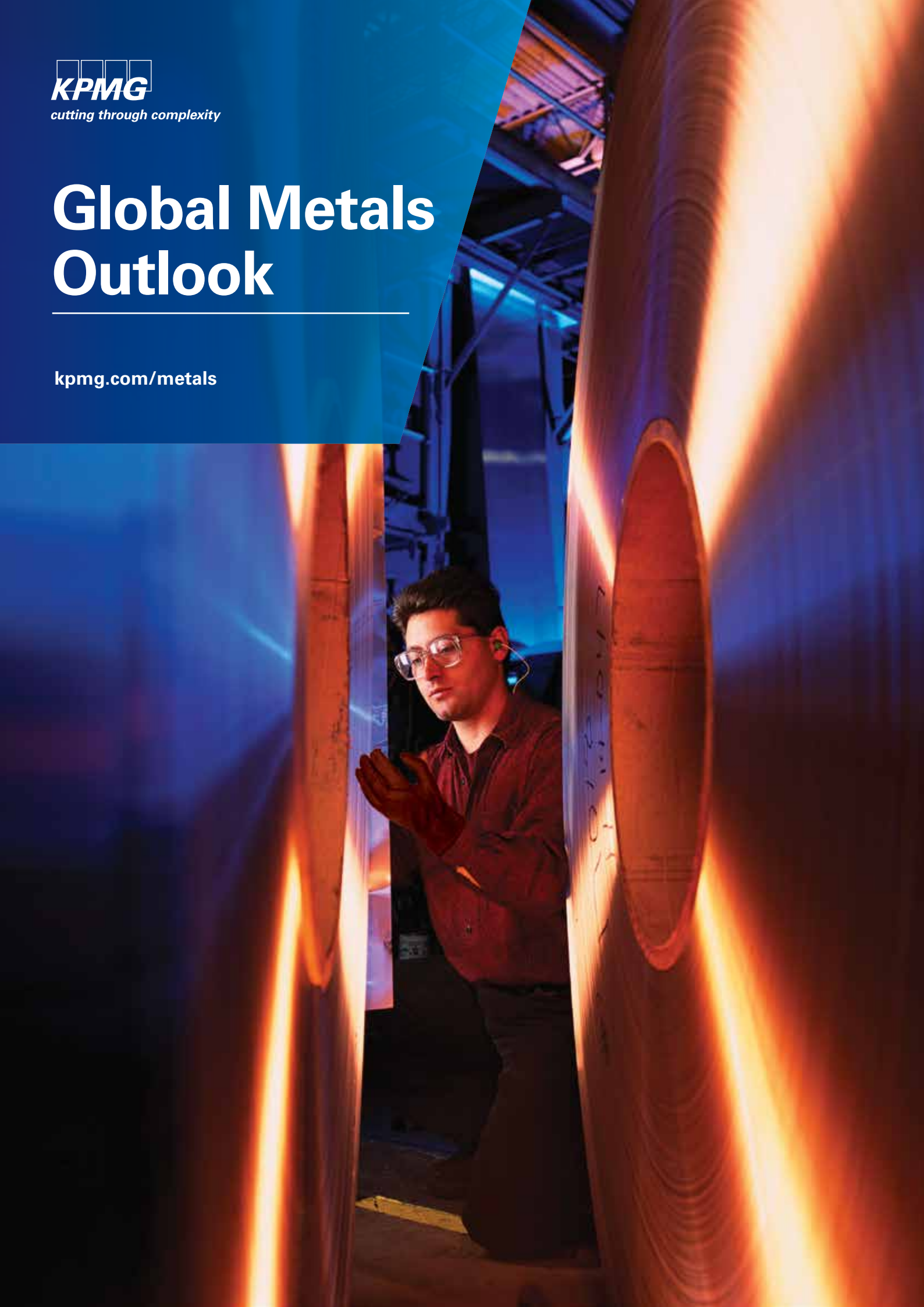


cutting through complexity

# Global Metals Outlook

---

[kpmg.com/metals](https://kpmg.com/metals)



# Foreword

The past few years have been anything but boring for the metals sector. In 2014, things seem set to improve with many metals markets now climbing out of the low-cycle. Already, we are starting to see signs of a reduction in structural overcapacity through restructuring and consolidation; more is expected, particularly in China and Western Europe. This is a good thing and will ultimately lead to more global and regional stability for participants, suppliers and customers.

As this *Global Metals Outlook 2014* illustrates, metals organizations are focusing on improving their understanding of their cost and profit levers, entering into partnerships and driving innovation in order to create a platform for profitable growth. At the same time, many of the more traditional issues – rising energy costs, resource volatility and the need for new talent, for example – have moved back onto the metals agenda, while ‘evergreen’ challenges such as increasing regulation and the evolution of profit and cost remain ever-present.

Given the cyclical nature of the metals sector, it is hardly surprising that metals executives responding to our survey say they are now feeling the pressure of delayed investment into technology. With expectations now rising that there may be some room to invest in areas such as R&D and supply chain, our report shows that many in the sector are on the verge of recommitting significant investment into these areas.

New solutions and approaches are also starting to emerge within the metals sector. With cost consciousness as high as ever, metals organizations are now starting to recognize the value that new technologies – particularly data analytics – could provide in an uncertain environment.

This *Global Metals Outlook 2014* combines the findings of our survey – which included responses from more than 80 metals executives around the world – with KPMG’s hands-on experience working across the sector to paint a clear picture of the challenges and opportunities now facing metals organizations. To discuss these, or any other issues currently facing your organization, I encourage you to contact your local KPMG member firm or one of the contacts listed at the back of this publication.



**Eric Damotte**

KPMG Global Head of Metals

# Contents



<b>A better view of profitability</b>	<b>2</b>
<b>Aspiring for innovation</b>	<b>6</b>
<b>Refocusing on supply chain visibility</b>	<b>12</b>
<b>5 key takeaways</b>	<b>15</b>
<b>How KPMG can help</b>	<b>16</b>





# A better view of profitability

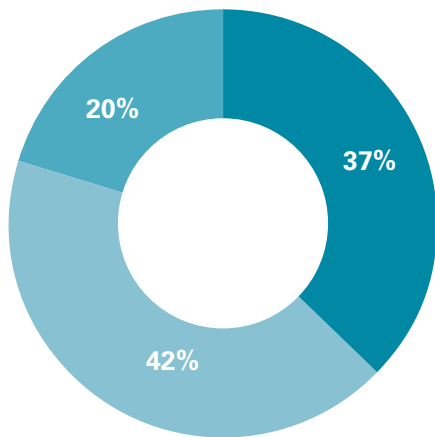
As global metals markets move out of the recent low-cycle, many metals organizations are now starting to reinvest in better understanding their profitability. Eighty-two percent of all metals respondents to our survey said that their organization would place either a moderate or high priority on adopting processes and systems to achieve real-time measurement of product cost and profitability over the next two years.

Metals respondents also suggested they would place either moderate or substantial investment into their profit and cost data systems and processes, particularly those related to 'product or service cost improvement' (cited by 86 percent) and 'individual product or service profitability' (80 percent).

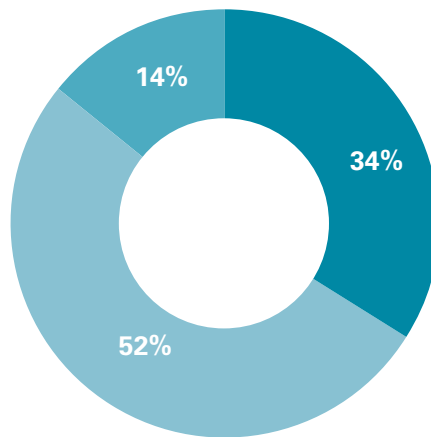
When asked which profit and cost analytics practices they would prioritize over the next two years, almost half of all metals respondents identified 'integrated planning and forecasting applications' and more than a third said 'scenario and predictive modeling'.

## What level of investment do you plan to put into enhancing systems and processes within each of the following areas?

Individual product or service profitability



Product or service cost improvement



- Substantial investment
- Moderate investment
- Low investment

Note: Percentages may not add up to 100 percent due to rounding.  
Source: Forbes Survey, January 2014.

However, it is important to note that metals organizations are largely on par – and in some cases slightly more advanced – than their peers in other industrial manufacturing sectors when it came to determining profit and cost. One in seven metals respondents categorized themselves as being ‘very effective’ at determining profitability to provide competitive differentiation (versus one in eight in the general survey sample) and almost four in seven said they were ‘somewhat effective’ (a result equal to the general survey sample).

“Over the past few years, the metals sector has been largely characterized

by volatility, uncertainty, complexity and ambiguity and – as a result – predicting profitability has become increasingly difficult,” noted S.V. Sukumar, Head, Strategy and Operations, KPMG in India. “In this environment, metals organizations will need to make better use of technology, particularly Customer Relationship Management tools and analytics, in order to better manage variations in selling prices and raw material costs.”

Metals respondents also suggested that their data was more reliable than their peers, particularly in the areas of ‘product and service cost improvement’



In this environment, metals organizations will need to make better use of technology, particularly Customer Relationship Management tools and analytics, in order to better manage variations in selling prices and raw material costs.

**S.V. Sukumar, Head,  
Strategy and Operations,  
KPMG in India**

where 54 percent said their data was highly reliable, and in 'rebates and incentives' where 52 percent said the same. In comparison, more than half of the general population said they had no data that they would deem 'highly reliant'.

"Our results show that, while metals organizations may already be slightly more effective than others at determining their profitability, they are still very focused on getting better,"

noted Eric Damotte, KPMG Global Head of Metals. "The fact that the sector has been dealing with a period of low margins where the priority was simply on protecting what modest profitability they could achieve, means that metals organizations are now very focused on investing in systems, processes and practices to help them better control cost and profitability."

## KPMG Insight



**Roy J. Hinkamper**  
Global Met Coal  
Commodity  
Leader

### Maintaining efficiencies in a growth cycle

For the past few years, the metals and mining sector has been largely characterized by softness (both in terms of commodity prices and demand) and concerns related to maintaining profitability and liquidity.

As a result, many metals organizations are rethinking how they structure their procurement functions and manage their overall supply chain to enhance flexibility and take advantage of growth opportunities.

Some, for example, have been working to identify new ways to restructure their procurement function to maximize

efficiency and create deeper visibility. Others are taking advantage of centralized purchasing or harnessing the power of analytics to help them better manage the capital they have tied up in inventories.

However, as the market begins to harden – demand starts to strengthen and prices start to rise – many organizations will likely struggle to maintain their hard-won supply chain improvements. Indeed, the biggest challenge facing many organizations as we move into a growth cycle may not be in finding new opportunities to exploit, but rather in ensuring that discipline does not dissipate in the face of improving margins.

# Case study

## Improving growth through reduced working capital

Steel manufacturing is a very capital-intensive business. Fixed capital investments are significant – a blast furnace can cost upwards of USD300 million to re-line every decade or so – and working capital ratios are some of the highest in the sector, compared to other business sectors.

For one integrated steel manufacturer, high net working capital requirements – often at around 23 percent of turnover – were essentially eating up their entire cash margin and reducing the organization's ability to invest in new growth opportunities. The CEO and CFO knew that they could not maintain such high working capital ratios and remain competitive or profitable in the future.

Working with KPMG, this integrated steel manufacturer challenged itself to eliminate around 15 percent of its current net working capital – a target reduction of approximately USD300 million – within the first year of the program. Numerous potential opportunities were identified across the organization, and the business was quickly engaged in the process of executing and embedding the new or improved working capital strategies.

To ensure that the program would be sustainable and ongoing, the team also focused on embedding a lasting cultural change through a four-pronged approach that drives improvements in visibility, controls, organization and capability. In doing so, the steel

manufacturer quickly recognized that – to sustainably improve its working capital requirements – the organization would need to develop the right tools and build the right capabilities to support and embed ongoing efforts.

The project has already achieved some notable successes. In the first nine months alone, the team was able to drive more than USD300 million out of the organization's net working capital. It is expected that another USD150 million will be eliminated before the year end. And, with the right skills and capabilities now embedded within the organization, the manufacturer can expect to enjoy and sustain much lower working capital requirements going forward.





# Aspiring for innovation

More than eight in 10 said that 3-D printing was going to dramatically reduce their product development life-cycle.

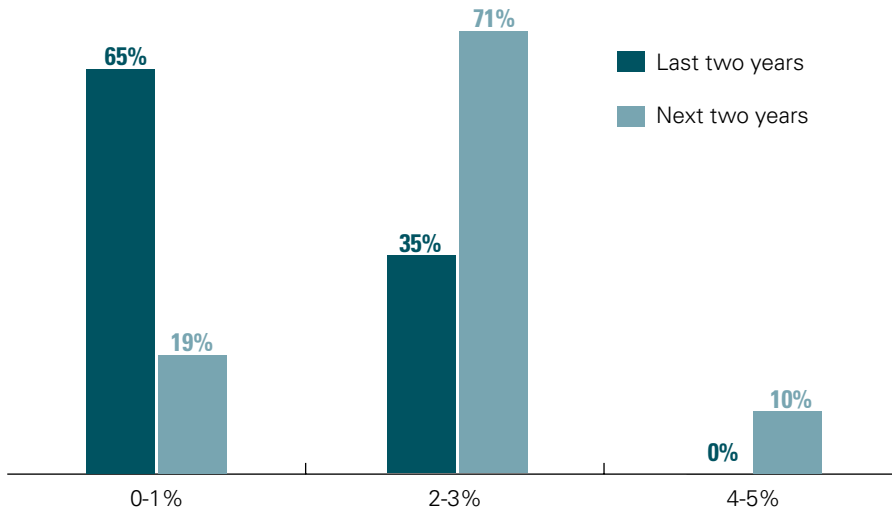
Metals organizations are expecting to dramatically increase their spend into R&D and to leverage partnerships to drive innovation. Indeed, whereas 65 percent of metals respondents said they spent just one percent or less of their revenue on R&D over the past two years (hardly surprising given the low-cycle that the sector was experiencing), 81 percent say they now plan to spend upwards of two percent of their revenues on R&D over the next two years.

Respondents also indicated a significant preference for entering into partnerships to achieve their R&D objectives. Almost nine in 10 metals respondents said that partnerships, not in-house efforts, would be the future of innovation, up significantly from the 47 percent that said the same in 2013. At the same time, 72 percent said they were already adopting more collaborative business models for R&D.

Technology is expected to play a key role. Seventy-two percent of metals respondents said they were already leveraging decision-support technology in their R&D function. Interestingly, more than eight in 10 said that 3-D printing was going to dramatically reduce their product development life-cycle.

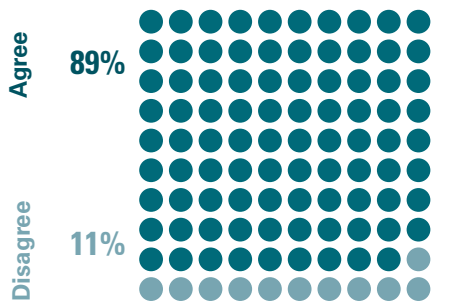


## What percentage of revenue did you spend on R&D in the last two years and what will you spend in the next two years?

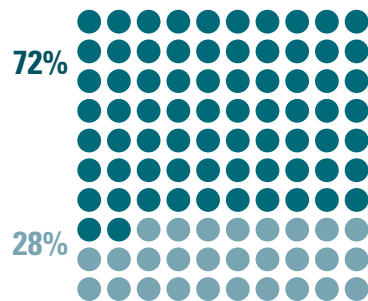


Note: Percentages may not add up to 100 percent due to rounding.  
Source: Forbes Survey, January 2014.

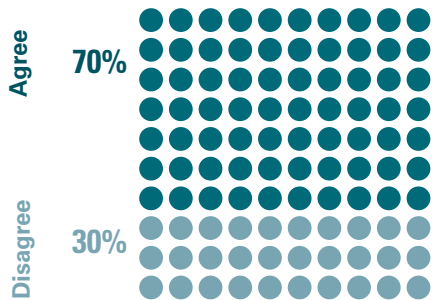
## Technology is expected to play a key role



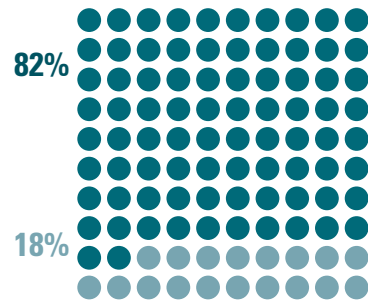
Partnerships, rather than in-house efforts, will characterize the future of innovation.



We are adequately leveraging decision-support technology in our R&D function.



We are adopting more collaborative business models with suppliers and customers.



3-D printing technology is dramatically reducing our product development life-cycle.

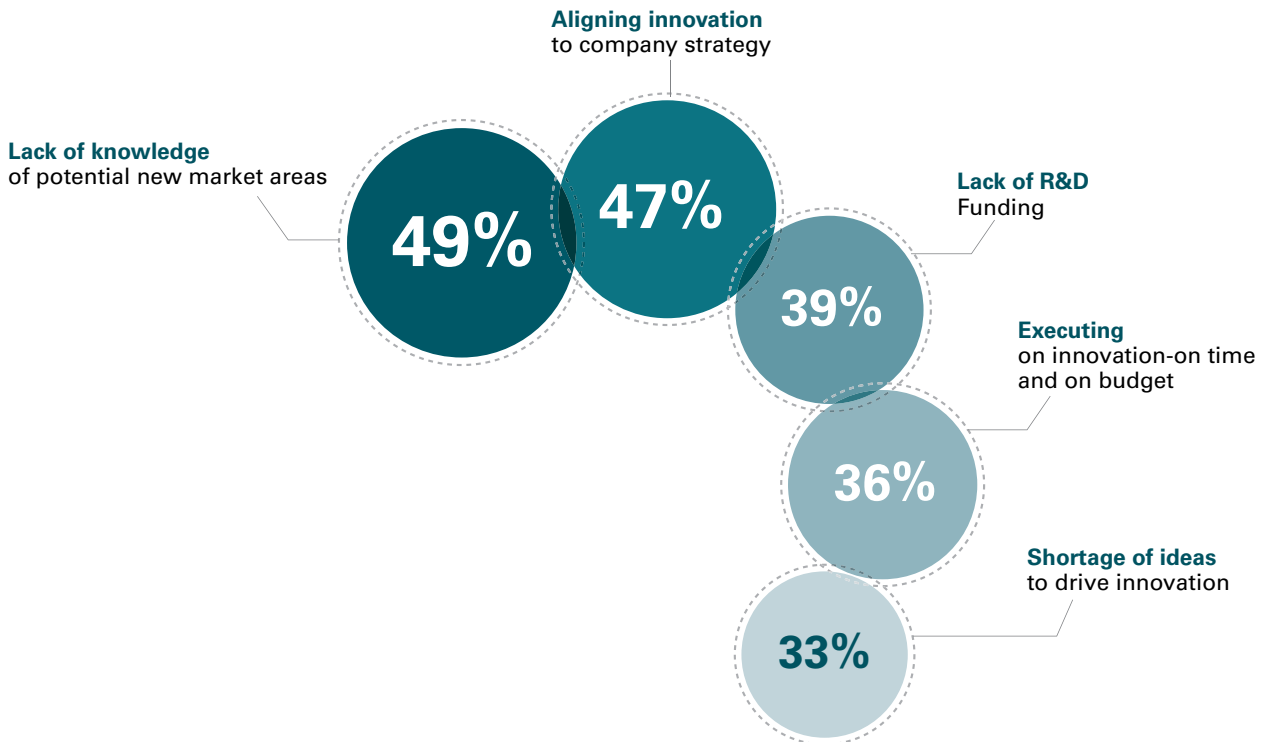
Note: Percentages may not add up to 100 percent due to rounding.  
Source: Forbes Survey, January 2014.

When asked what challenges their companies faced when trying to innovate, metals organizations tended to point to 'lack of knowledge of potential new market areas' and 'aligning innovation to company strategy' (cited by 49 percent and 47 percent, respectively). Only around 39 percent of respondents said that 'lack of R&D funding' was one of their top three challenges; a surprising finding given the capital constraints that most organizations have recently experienced.

"This data suggests that most metals organizations have big aspirations to 'catch up' on any competitive advantage they may have lost during the low-cycle;

and clearly they are planning to try a variety of approaches to achieve that goal," noted Eric Damotte. "Partnerships and collaboration are becoming the clear choice for those wanting to take on projects – capital or R&D – that are simply too big for just one company to manage alone. This is about sharing risks, costs, investments and benefits."

## What is stopping you from innovating?



Note: Percentages may not add up to 100 percent due to rounding.  
Source: Forbes Survey, January 2014.





**Rama Ayman**  
Global Head of  
Metals & Mining  
Corporate  
Finance

### M&A or partnerships in the Metals sector

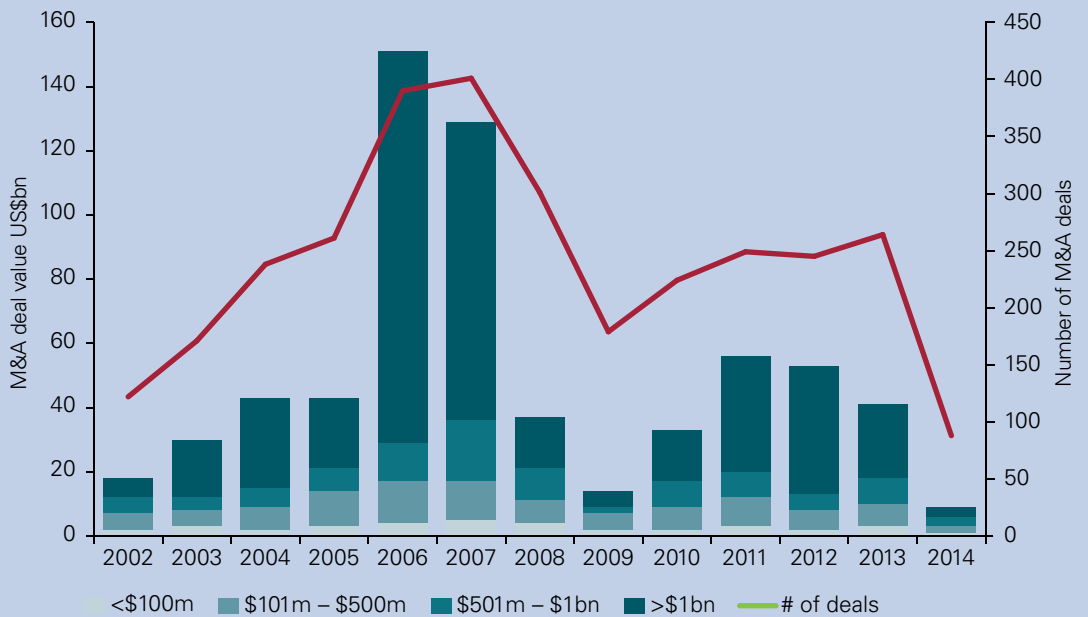
As we predicted in the 2013 Metals Outlook, M&A activity has been slow over the past 12-18 months. In part, this is because many steel and metal companies are facing a tight market characterized by:

- 1) Significant over-leverage,
- 2) Lower margins driven by weaker demand (especially in Europe),
- 3) Over capacity in many segments of steel industry and many other metals
- 4) Concerns over the diminishing growth rate as well as supply and demand balance in China which hosts over 50 percent of global steel production and rising

- 5) Reduced cash-flows available for acquisitions, and
- 6) A pre-occupation with cost optimization, reduction of over-capacity (by temporarily or permanently shutting certain operations), and project and asset portfolio management decisions.

Only two notable deals for integrated steel assets closed in the past year (the merger between Finland's Rautaruukki and Sweden's SSAB in the first quarter of 2014, and ThyssenKrupps' sale of its US operations to a conglomerate that included ArcelorMittal and Nippon Steel). We do not anticipate any major mergers of integrated steel companies in the year ahead outside of China where markets remain highly fragmented.

### M&A in the metals sector 2002 – 2014 (YTD)



Source: mergermarket (May 21, 2014) KPMG analysis.

One of the big challenges is that many of the integrated steel companies who were formerly buyers of steel assets (as well as mines producing raw materials for steel-making) are now short of available cash for acquisitions. At the same time, however, we have noted private equity funds and trading houses re-entering the steel sector and becoming selective buyers of assets.

Diminished margins and cash flows will continue to put pressure on companies in the steel sector forcing many divestitures of non-core assets and underperforming businesses. Many steel companies, in the absence of easy credit and access to equity markets, may turn to joint ventures

and equity risk sharing as a means to fund major project developments especially on larger acquisitions and, for those who have a vertical integration strategy, in developing mining assets.

In select raw material-rich countries, governments will continue to force companies to go downstream by limiting the export of raw materials which, in turn, could create joint venture opportunities for smelting and steel making operations in those markets.

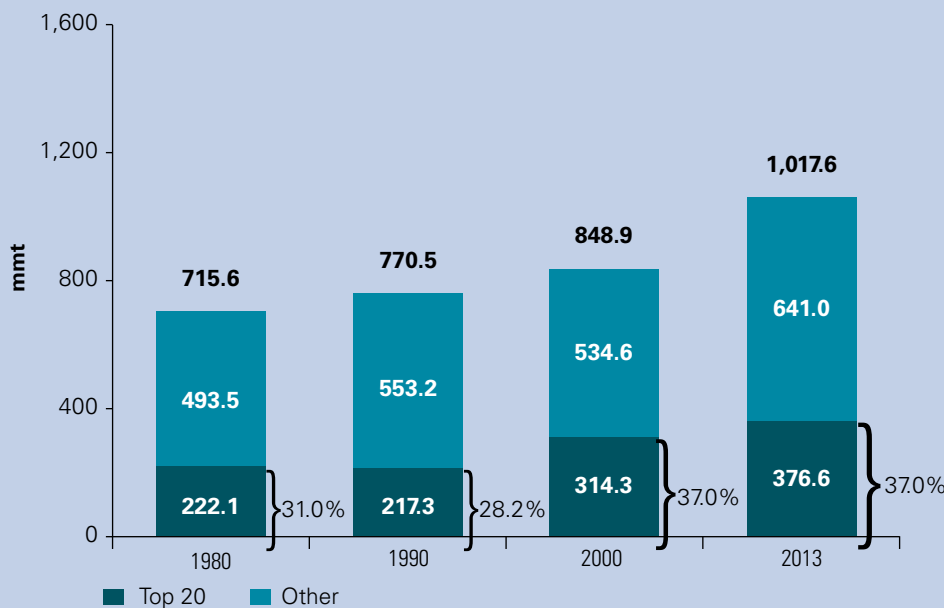
In other metals, such as copper and aluminum smelting and refining, companies continue to search for investments in raw materials to better manage price volatilities and

achieve security of supply in the face of volatilities in commodity prices and growing resource nationalism.

However, given the difficulties that many steel and other metals companies face in raising funds in equity and debt markets, we believe that organizations will need to be much more open-minded about collaborating with strategic financial and JV partners to get deals done.

At the same time, we believe that the pool of potential buyers has shrunk substantially over the past few years, meaning that sellers of assets will need to become much more creative in the way they structure and promote their asset sales.

### Share of the top 20 steel companies, 1980-2013



Source: World Steel Association 2014.



## Refocusing on supply chain visibility

One in five metals organizations believes they have 'complete' visibility across all of their suppliers and only half suggest that they have 'enhanced' visibility that extends slightly beyond their Tier 1 suppliers.

While metals organizations seem to have made some progress in improving their supply chain visibility, much work remains to be done before they are able to achieve a globally-integrated supply chain.

According to our survey, less than one in five metals organizations believes they have 'complete' visibility across all of their suppliers and only half suggest that they have 'enhanced' visibility that extends slightly beyond their Tier 1 suppliers. However, whereas seven percent of metals organizations admitted to having 'no' visibility in 2013, this year all metals respondents said they had at least 'some' level of visibility.

In particular, more than half of metals executives pointed to challenges related

to having inadequate IT systems for supply chain visibility, up significantly from the 15 percent that identified this as a challenge in 2013. Almost half of metals organizations also noted a lack of skilled talent as a key challenge in achieving supply chain visibility.

With more than half (52 percent) of metals respondents saying that their supply chain visibility efforts are primarily focused on better managing costs, many are now seeking to leverage their strong relationships

## How much visibility do you have across your supply chain?



- Complete visibility – Tier 1, 2 and beyond suppliers visibility
- Enhanced visibility – Tier 1 supplier visibility and some Tier 2 supplier visibility
- Some visibility – limited Tier 1 supplier visibility, but not Tier 2 and beyond

Note: Percentages may not add up to 100 percent due to rounding.  
Source: Forbes Survey, January 2014.

with top suppliers to better integrate their supply chain operations. Eight in 10 metals respondents said that their relationships with key suppliers were strong enough, and that their data was reliable enough, to share real-time capacity and demand data.

Perhaps not surprisingly given the fixed cost base within the metals sector, our metals respondents were more likely to also say that they were leveraging global demand planning enterprise-wide than the general industrial manufacturing survey sample (63 percent versus 51 percent). At the same time, however, a quarter of all metals respondents

admitted to not using global demand planning at all. “Tier 1 suppliers are also increasingly focusing on integrating their production planning as they move towards a more customer demand driven model,” said Wayne Jansen, KPMG Global Head of Mining. “When this focus is combined with more investment in technology, I think we will see mining and metals organizations – and their customers – achieving greater visibility across the global supply chain.”

According to our survey, technology will continue to create challenges for the metals sector. More than half of respondents (53 percent) said that

## How is your organization using technology?

### Global demand planning (real-time demand signal changes)



- Using enterprise-wide
- Using on a limited basis (e.g. single business unit or product line)
- Not using

Note: Percentages may not add up to 100 percent due to rounding.  
Source: Forbes Survey, January 2014.

technology was not yet mature enough for adoption (versus just 14 percent who said 'lack of strategy', the second most often cited challenge). At the same time, more than half also said that technology would be the biggest enabler for adopting new technology for supply chain data. "Technology can play a key role in assisting mining producers to re-optimize their planning, particularly in situations where a significant event has created disruptions to their operations," Wayne Jansen added.

However, given this data, the fact that almost 70 percent of metals organizations thought they could

achieve a globally integrated supply chain within the next three to five years may seem slightly optimistic.

"Metals organizations are recognizing that there are a number of key ingredients to improving their supply chain visibility and integration," said Eric Damotte. "It takes better use of technology, investment in supply chain innovation, closer partnering with suppliers and better visibility across the supply chain; without all of those elements, metals organizations will likely find their supply chain strategies impossible to achieve over the long term.

## KPMG Insight



**S.V. Sukumar**  
Head, Strategy  
and Operations  
KPMG in India

In fast-developing markets such as India, metals organizations are increasingly focused on driving innovation and increasing supply chain visibility. Indeed, with capacity now significantly increased, many have turned their attention to growing their proportion of exports. As a result, we are seeing increased investment into not only product innovation, but also operating model innovations that improve the customer experience and offer more value-added products targeted to the specific needs of customers.

Tied to this is a broadening recognition that longer supply and distribution chains require much greater investment into end-to-end supply chain visibility. For many, this will require significant change in the way they have managed their traditional planning and execution processes. The ability to leverage technology to manage the more complex planning process will be key, as will the ability to develop the right philosophies, assumptions and rules for supply chain planning and execution within each market that they serve.



# 5 key takeaways

1

Understand your product cost and profitability to support growth and performance across the enterprise.

2

Continuously evaluate your model for innovation for effectiveness and return on investment.

3

Leverage partnerships and collaborative business models to create synergies across the value chain.

4

Utilize technology and build trust to create better visibility and transparency across the supply chain.

5

Attract and retain the right skills and capabilities to manage the increasingly complex and fragmented regulatory environment.

# How KPMG can help

As a leading professional services firm to metals companies, KPMG is committed to helping member firm clients plan for the future. Our nearly 600 Global Metals sector partners and professionals provide industry-specific experience and work closely with you to navigate the evolving complexities of global operations and value chains, and unlock value for your organization, customers and stakeholders.

KPMG's network of professionals help metals clients transform challenges into opportunities with cross-functional industry knowledge, open collaboration, and an insightful approach that is tailored to each client's situation and needs.

KPMG's audit, tax and advisory professionals support metals clients with deep technical and industry experience and provide actionable operational, financial, and regulatory insights that help you cut through complexity.

# About the survey

This *Global Metals Outlook* is part of KPMG's 2014 Global Manufacturing Outlook Survey. Data was collected by Forbes on behalf of KPMG in early 2014. Accompanying analysis was provided by senior KPMG metals sector leaders from across the firm's global network of Metals practices.

A total of 460 senior manufacturing executives participated in the survey, of which 18 percent came from the metals sector. The views reflected in this *Global Metals Outlook* include those from 83 industry participants with revenues of more than USD1 billion, 39 percent of which reported earning revenues of USD5 billion or more.

Forty two percent of metals respondents identified themselves as being based in Europe, the Middle East and Africa; 33 percent identified the Americas as their home-base; and 21 percent were based in Asia Pacific. Almost three-quarters (73 percent) of all metals respondents held C-Level positions within their respective organizations with a further 19 percent representing SVP/VP/Director or Head of department roles.

## KPMG Global Metals Leadership:

**Eric Damotte**  
Global Head of Metals  
+34 914 563406  
edamotte@kpmg.es

**Jeff Dobbs**  
Global Sector Chair,  
Industrial Manufacturing  
+1 313 230 3460  
jdobbs@kpmg.com

## Additional contributors and country leaders:

**Rama Ayman**  
Global Head of Metals &  
Mining Corporate Finance  
+1 703 286 8668  
rama.ayman@KPMG.co.uk

**Hong Gi Bae**  
Metals Sector Leader  
KPMG in Korea  
+82 22 112 0520  
honggi\_bae@kr.kpmg.com

**Anthony Berrange**  
Partner, Audit  
Africa Head of Metals  
KPMG in South Africa  
+27 11 647 8140  
anthony.berrange@kpmg.co.za

**Biswanath Bhattacharya**  
Director, Metals Sector  
KPMG in India  
+91 223 090 2521  
bbhattacharya@kpmg.com

**Arne Frogner**  
Partner  
KPMG in Norway  
+47 4063 9063  
arne.frogner@kpmg.no

**Michael Gewehr**  
Metals & Steel Leader  
KPMG in Germany  
+49 211 475 7637  
mgewehr@kpmg.com

**Anders Hahnsson**  
Director  
KPMG in Finland  
+358 20 760 39 88  
anders.hahnsson@kpmg.fi

**Roy J Hinkamper**  
Global Met Coal Commodity Leader  
+1 314 244 4061  
rhinkamper@kpmg.com

**Wayne Jansen**  
Global Head of Mining  
+27 11 647 7201  
wayne.jansen@kpmg.co.za

**Charles Kriek**  
Industrial Manufacturing Country Leader  
KPMG in Brazil  
+55 11 218 33102  
ckriek@kpmg.com.br

**Don Matthew**  
Partner  
KPMG in Canada  
+1 604 455 4002  
dmatthew@kpmg.ca

**Herve Michelet**  
Partner, Audit  
France, Head of Metals  
KPMG in France  
+33 15 568 7544  
hmichelet@kpmg.fr

**Hakan Ölekli**  
Partner, Audit  
Industrial Manufacturing Leader  
KPMG in Turkey  
+90 216 681 9000 (ext: 9087)  
holekli@kpmg.com

**Mark Raddan**  
Partner  
KPMG in the UK  
+44 20 7694 3580  
mark.raddan@kpmg.co.uk

**Eduardo Salgado**  
National Industry Leader,  
Mining & Metals  
KPMG in Mexico  
+52 55 5246 8833  
esalgado@kpmg.com

**Alex Shum**  
Head of Industrial Manufacturing  
KPMG in China  
+86 212 212 2508  
alex.shum@kpmg.com

**Nick Southon**  
Partner, Audit  
Africa Head of Industrial Manufacturing  
KPMG in South Africa  
+27 11 647 7150  
nick.southon@kpmg.co.za

**S.V. Sukumar**  
Partner, Management Consulting  
Head of Strategy and Operations  
KPMG in India  
+91 223 090 2490  
sukumarsv@kpmg.com

**Michele Hendricks**  
Global Executive for Industrial  
Manufacturing  
KPMG in the US  
+1 203 406 8071  
mhhendricks@kpmg.com

**Leona Mickelson**  
Senior Marketing Manager  
KPMG in Canada  
+1 416 777 8822  
lmickelson@kpmg.ca

[kpmg.com/socialmedia](http://kpmg.com/socialmedia)



[kpmg.com/app](http://kpmg.com/app)



The information contained herein is of a general nature and is not intended to address the circumstances of any particular individual or entity. Although we endeavor to provide accurate and timely information, there can be no guarantee that such information is accurate as of the date it is received or that it will continue to be accurate in the future. No one should act on such information without appropriate professional advice after a thorough examination of the particular situation.

© 2014 KPMG International Cooperative ("KPMG International"), a Swiss entity. Member firms of the KPMG network of independent firms are affiliated with KPMG International. KPMG International provides no client services. No member firm has any authority to obligate or bind KPMG International or any other member firm vis-à-vis third parties, nor does KPMG International have any such authority to obligate or bind any member firm. All rights reserved.

The KPMG name, logo and "cutting through complexity" are registered trademarks or trademarks of KPMG International.

Designed by Evalueserve. Publication name: Global Metals Outlook.

Publication number: 131409. Publication date: June 2014