



cutting through complexity

# Global Metals Outlook

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# Foreword

The past few years have been challenging for many metals organizations. Facing heightened pressure as a result of overcapacity and sagging iron ore prices, metals manufacturers are now entering a period of intense competition. Everyone is looking for new growth opportunities while – at the same time – remaining keenly focused on reducing costs.

This ultra-competitive metals environment is creating significant challenges for the sector. In China, pressure on margins and overcapacity has already translated into record-high export levels that, eventually, will lead to significant domestic consolidation. Outside of China, however, much of the competition will revolve around metals organizations' ability to understand and meet customer demand.

As the *Global Metals Outlook 2015* clearly demonstrates, the competitive environment is pushing metals organizations to increase their focus on the development of new products – such as ultra-light alloys – and to adopt new manufacturing technologies that could help respond to emerging needs in the market and stricter environmental regulations.

At the same time, metals organizations are focusing on enhancing their supply chain operations in order to not only reduce working capital levels, but also to become more flexible and responsive to customer demand. Interestingly, the shift towards customer-centricity by metals producers is already causing some disintermediation of traditional distributor organizations which, in turn, may lead to consolidation.

Even so, expectations for significant M&A activity outside of China are low. Instead, we expect to see a growing focus on the development of partnerships with other players and collaborative efforts with both customers and suppliers to drive new growth and innovation opportunities.

This *Global Metals Outlook* combines the findings of our survey – which include responses from close to 50 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**  
Global Head of Metals  
KPMG International

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# Key highlights



## Key highlights of this year's *Global Metals Outlook* include:

- **Sales growth, stiff competition and cost volatility:** Forty-nine percent say they are focused on sales growth; 49 percent are challenged by intense competition and pressure on prices.
- **New technologies and new markets:** Sixty percent say that the adoption of new technology will drive future growth; 43 percent say they will grow through expansion into new markets.
- **Innovation and partnerships:** Eighty-five percent believe that partnerships, not in-house efforts, will form the future of innovation for their organization; 81 percent are already adopting more collaborative business models with suppliers and customers.
- **Rising R&D investment and enhancing product lines:** Thirty-two percent will spend more than 6 percent of revenues on R&D over the next year; 70 percent will funnel investments towards projects that deliver incremental innovation.
- **Supply chain organizations and visibility:** Forty-seven percent will focus on reducing their cost structure as a top priority; only 17 percent have complete visibility across the supply chain.



# An era of intense competition emerges

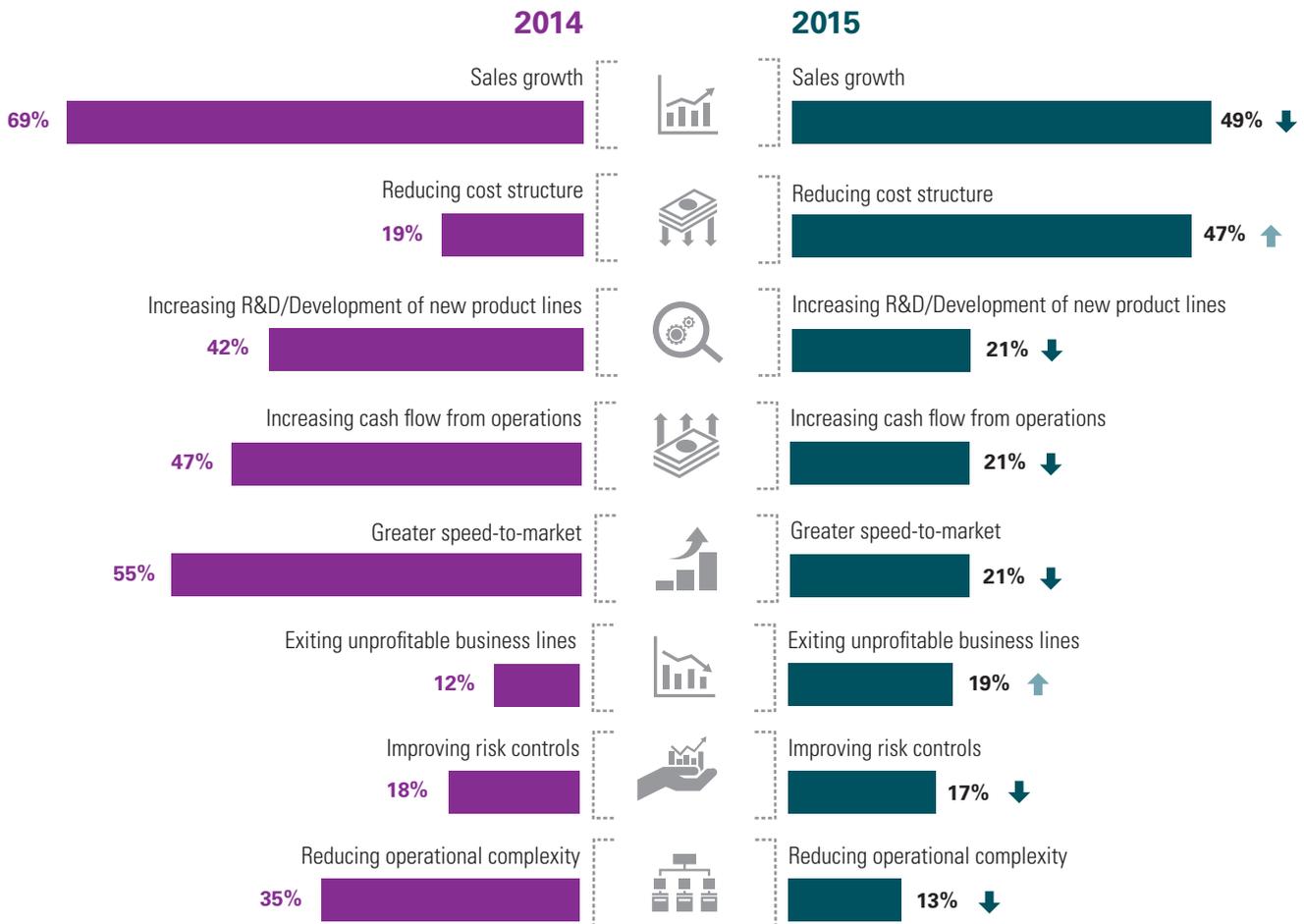
Against a backdrop of significant overcapacity in the steel sector, slowing economic growth in China and swooning commodity prices, metals producers around the world now face intense competition. Margins are sagging as prices come under pressure while, at the same time, new capacity continues to come online, sharpening the competitive pressure.

Not surprisingly, metals organizations are keenly focused on driving cost-efficient sales growth to win in this new competitive environment. Almost half of all metals respondents cited sales growth as their top strategic

priority while an almost equal number say they will focus on reducing the cost structure.

“Just 2 years ago, most industry observers expected China to remain the growth driver of the sector, sucking up

## Sales growth and cost management top the list of priorities for metals organizations



Note: Respondents selected top three options.  
Source: Forbes survey, January 2015.

all the spare capacity that the world had to offer,” noted Eric Damotte, KPMG’s Global Head of Metals. “But now it seems clear that China will be a long-term competitor rather than a customer and that has changed the market dynamics completely.”

As a result, most metals sub-sectors are now facing intense competition both at home and in their overseas markets as China’s capacity starts to move towards export. Almost half – 49 percent – of metals respondents cite intense competition and pressure on prices as a top challenge over the next 2 years.

In response, metals organizations are investing into new technologies, markets, alliances and innovations to drive the next wave of growth. Three-in-five metals sector respondents say they expect the adoption of new technologies to help drive growth. “The record-low cost of natural gas in some markets has revived interest in new – or often just improved – technologies and processes such as direct reduction for iron or more efficient furnaces,” added Eric Damotte.

Interestingly, 43 percent of metals respondents also say they will enter into new geographic markets to

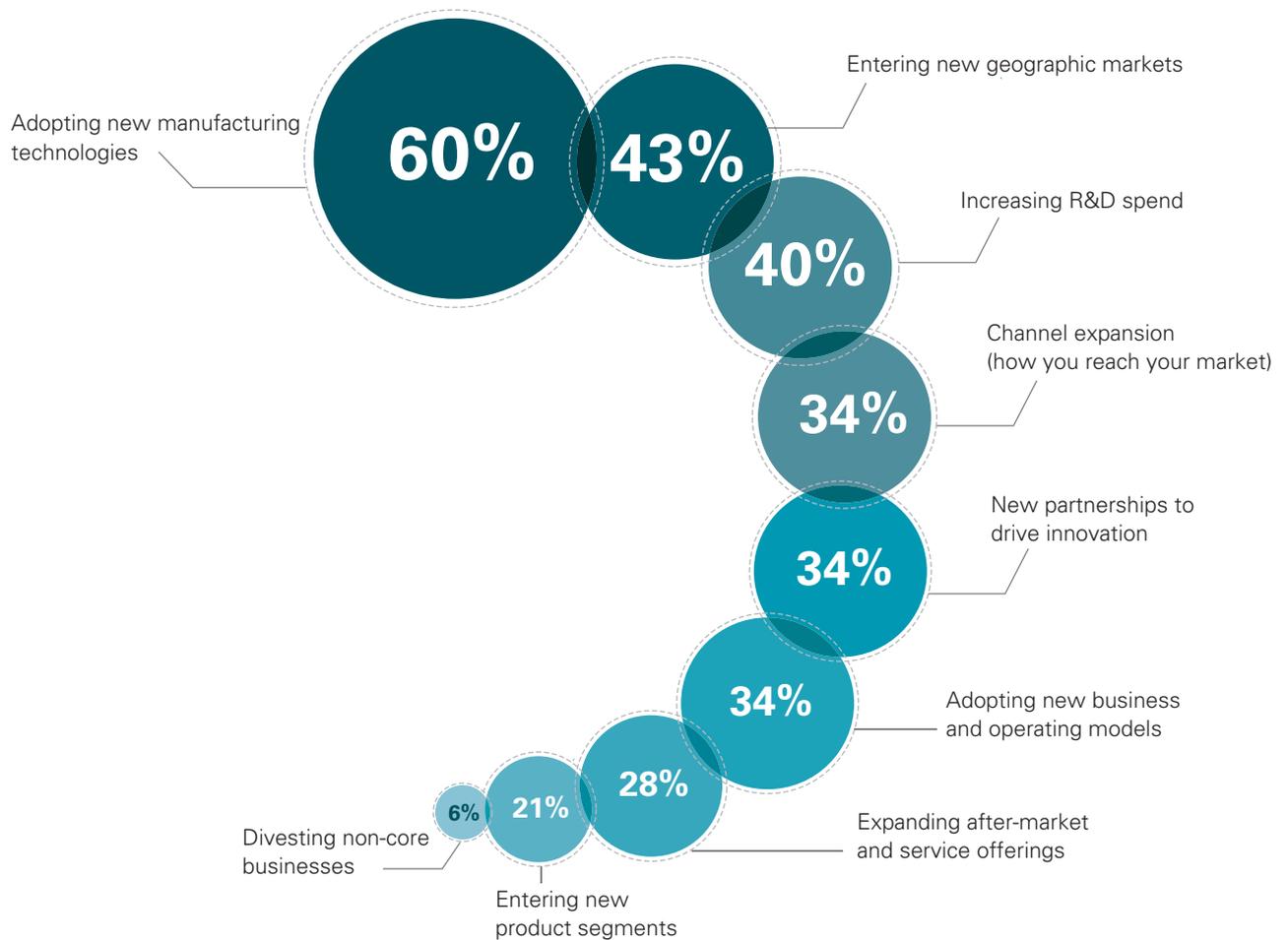
“Metals organizations are investing into new technologies, markets, alliances and innovations to drive the next wave of growth.”

capitalize on new growth opportunities. However, given the rising prevalence of trade protectionism measures in most importing countries, metals organizations may encounter difficulties entering into some markets.

“Attention to trade and customs regulations will be key as metals

organizations expand their customer base, operations and supply chains into new markets,” noted Amie Ahanchian with KPMG in the US. “Trade and customs considerations can impact risk, operations and costs and therefore should be integrated into the overall planning and strategy process at the start of any new growth initiative.”

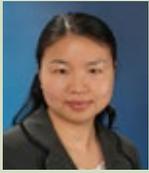
## Metals organizations are embarking on multiple paths to secure growth



Note: Respondents selected top three options.  
Source: Forbes survey, January 2015.

# KPMG perspective

## China's evolving metals market: risks and rewards



**By Denise Ling**  
KPMG in China

It seems like everyone in the metals sector is looking at China. And rightfully so; many of the sector's current challenges can be traced back to issues in China: fears of overcapacity in the steel sector, massive levels of low-cost exports and slowing global demand are all stories that start in what was once the world's largest steel market.

Uncertainty is certainly rife. Demand for steel and other metals is clearly falling from the heights of the past few years. Recent economic data and manufacturing indices suggest that growth is slowing across most of

China's regions and industrial sectors. As a result, demand for steel-intensive products such as cars, ships and domestic appliances are falling.

Many expect some of the smaller (and, notably, less environmental) state-owned steel assets to go through some consolidation as the government seeks to improve the use of the country's existing capacity. Most of China's steel companies – both state-owned and privately-held – are operating at a loss. Only those producing specialty steel products seem to enjoy strong growth potential.

The devaluation of the Renminbi has also brought some challenges and opportunities to China's steel market. On the one hand, the depreciation of the currency is a blessing for those who import iron

ore or export steel products. But it is also a major challenge for many of China's steel producers who, in the growth days, went overseas for financing and now face increasing repayment costs as a result.

Foreign players must recognize that slowing growth does not mean no growth. The reality is that China is still one of the world's fastest growing economies and the epicenter of low-cost manufacturing.

In fact, when combined with new government initiatives and investments in transportation, infrastructure, construction and urban development, all signs indicate that China's steel sector will come out of this slow-down stronger and better positioned to capitalize on global demand than before.

## Case study

### Getting the price you deserve: Rethinking the customer value proposition



**By Robert Browne**  
KPMG in the UK

As this Metals Outlook report clearly demonstrates, metals organizations are facing heightened competition, tough pricing pressures and growing demand for innovation and value-added services. Yet, at the same time, most steel organizations have suffered year after year of price decreases, largely driven by lower input costs and growing available capacity.

Our experience working with one of the world's largest global steelmakers suggests that price decreases are not an inevitable reality. In fact, in the last round of price negotiations, we proved that – by properly

segmenting their customer base and understanding what qualities and services each customer valued – steelmakers could actually be increasing their net prices, even in a 'down' cycle.

Working closely with the organization's pricing and sales teams, KPMG in the UK reviewed 2 years of customer data for just a small segment – less than 10 percent – of the organization's total mid-market customers. Based on the data, the team created customer segmentation that would allow the organization's sales teams to truly understand what the customer valued and, as a result, what prices they were willing to pay for what services.

Next, the project team focused on arming the sales teams with the right

data, talking points, sales materials and objectives to ensure their price negotiations were successful. Executive leadership was key; knowing that the organization fully supported more aggressive price negotiations was central to driving sales team motivation.

The outcome was significant. Indeed, in a period where the base price for steel had dropped approximately 10 Euro (EUR) per ton, the steelmaker was able to achieve an uplift of almost EUR400,000. Given that less than 10 percent of the organization's customers had been 'in scope' for the project, it is clear that the benefits, once extended across the majority of the customer base, would be massive.



# Innovating for growth

With cost considerations high on the agenda, metals organizations are hoping to leverage partnerships and to collaborate with customers to drive innovation and growth. But while data suggests that investment into R&D is set to increase, most of this funding will go towards achieving incremental steps rather than giant breakthroughs.

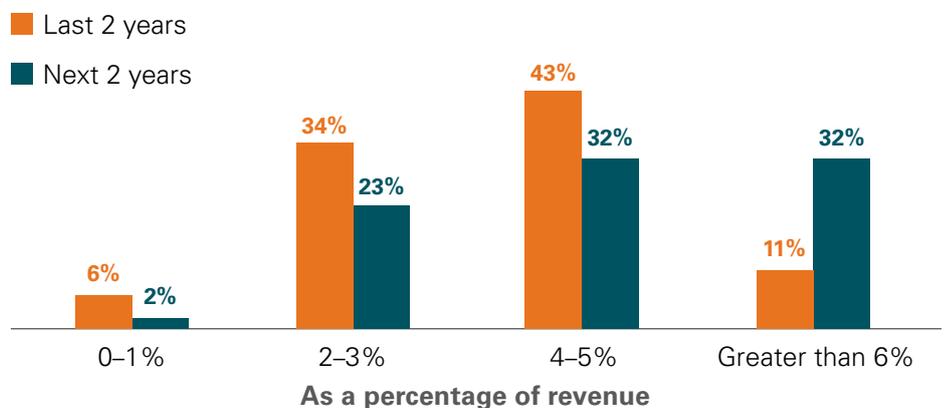
Metals organizations know that the introduction of new products – such as ultra-light alloys – and services can drive future growth. And many say they will increase their R&D spend to capitalize on these new opportunities. Indeed, 40 percent of metals organizations say they expect increased R&D spend to drive growth in the future.

Our data suggests that metals organizations expect investment to increase significantly over the next

2 years. In fact, the number of metals organizations who say they will spend upwards of 6 percent of revenue on R&D is set to increase by 21 percentage points; whereas just 11 percent report that they invested upwards of 6 percent of revenues into R&D in the past, almost a third say they plan to spend that amount over the next 2 years.

“Given the existing pressure on costs and cash management, it seems unlikely that investment levels will

## The number of metals organizations spending upwards of 6 percent of revenues on R&D is set to triple over the next 2 years



Note: Percentage totals might not equal 100 percent due to rounding.  
Source: Forbes survey, January 2015.

increase at quite the rate reported by our respondents,” noted Eric Damotte. “But the trend is clear: metals organizations want to spend more on R&D and firmly believe that innovation will be a key growth lever in the future. Indeed, going forward, the best opportunities for revenue growth and profitability will likely be found in technologically-advanced products as opposed to commodity products.”

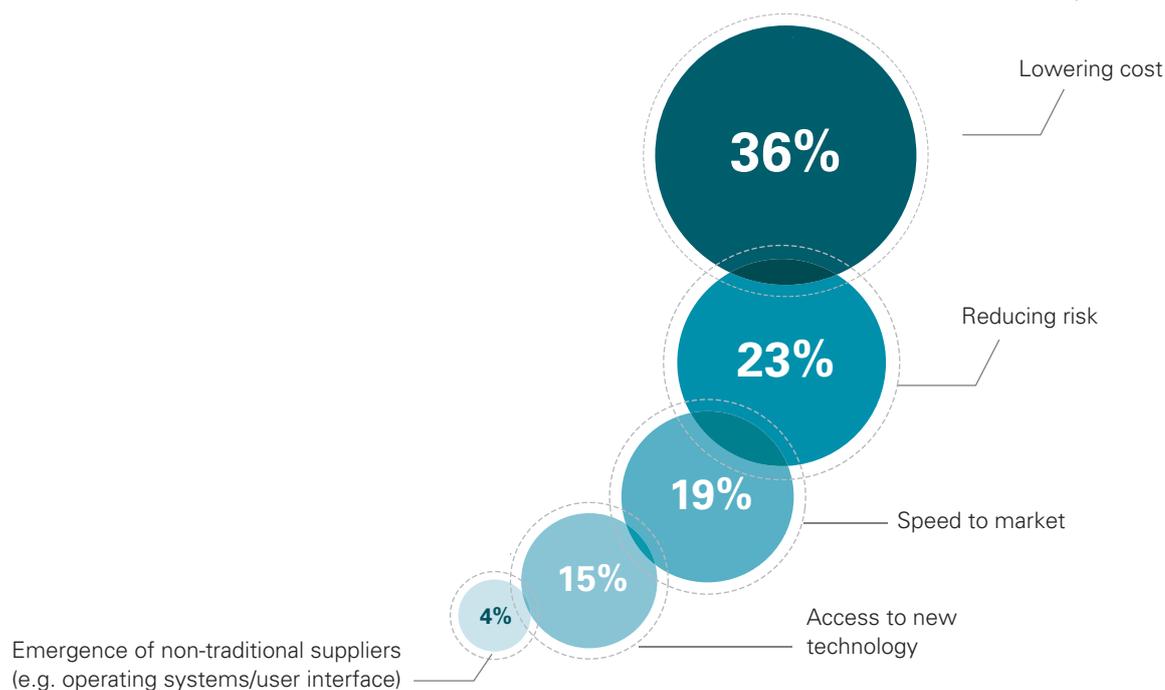
Not wanting to take massive risks on new breakthroughs, most organizations seem focused on investing into incremental innovations within their existing product lines and service areas. Seven-in-ten respondents say that their

primary innovation strategy is focused on incremental innovation, a far higher proportion than across the broader industrial manufacturing sector.

In part to further mitigate the risk of innovation – but also to drive down costs and improve speed to market – metals organizations are becoming increasingly focused on entering into partnerships to drive innovation. According to our data, 85 percent of metals respondents believe that partnerships, not in-house efforts, will form the future of innovation for their organization. More than three-quarters say they are already engaged in more collaborative business models with suppliers and customers.

“Eighty-five percent of metals respondents believe that partnerships, not in-house efforts, will form the future of innovation for their organization.”

## Metals organizations expect partnerships to reduce the cost and risk of innovation



Note: Percentages may not add up to 100 percent due to rounding.  
Source: Forbes survey, January 2015.

More than a third of metals respondents say that their primary reason for collaborating on innovation is to lower their R&D costs, while almost a quarter say they are creating partnerships in order to reduce risk. “We’re seeing new partnerships being formed, often between producers and their customers, that focus on very specific

needs and customer demands,” noted Eric Damotte. “While sharing costs are certainly part of the motivation, partnering with customers also helps ensure that there is an existing market for the new innovations once they have been developed which, ultimately, reduces the risk.”

# Corporate perspective

## Innovation in India: Q&A with India’s largest private steel producer

**An interview with Prashant Jain, SVP and head of corporate strategy at JSW Steel.**

### ***What does ‘innovation’ mean to JSW Steel?***

We believe innovation is critical to our growth plans. We’re adopting an innovative approach in multiple areas – in product development, in the way we deal with suppliers and in the way we interact with our customers. The reality is that markets have become increasingly dynamic and volatile so we really have no choice but to be innovative.

### ***What is driving JSW Steel to research new products?***

New products are central to our plans, not only to respond to new market entry barriers such as environmental regulations, but also because our customers have new requirements that we must meet. We work with a lot of automotive companies and, increasingly, they

are looking for lighter steel in order to achieve improved fuel efficiency in their models. We are also creating new products such as high-tensile steel to help drive global resilience against natural calamities like the earthquake in Nepal.

### ***How has this drive for innovation impacted your supply chain?***

Given the potential impact of currency fluctuations and shifts in demand, we simply cannot afford to have rigid supply chains and so we’ve always aimed to achieve more flexible supply chains that allow us to innovate. At the same time, our plans and our sheer size compels us to forge strategic tie-ups with our suppliers who we work with at the top management level to discuss and collaborate on our mutual expansion plans.

### ***With capacity at an all-time high around the world, where do you expect to see the next round of growth emerge?***

Right now our focus is on our domestic market which we feel holds the promise of substantial growth. The government’s ‘Make in India’ campaign is a huge opportunity for our company. Indeed, while manufacturing already accounts for 15 percent of India’s GDP, the government plans to increase this level to at least 25 percent by 2025. Clearly, there is significant domestic opportunity to capture in the manufacturing sector.

At the same time, we also know that, in a highly-competitive commodity business such as ours, innovation has become crucial and offers a strong path to sustainable growth.

# KPMG perspective

## Will 3D printing disrupt the metals sector?



**By Tom Mayor**  
KPMG in the US

In almost every manufacturing sector, organizations are exploring the benefits of 3D printing. Component manufacturers and OEM end-customers (particularly in aerospace and defense, automotive and industrials) are already introducing 3D printing technologies. Many hope to see significant improvement in material yields and gain the ability to form much more complex nested shapes than are achievable with traditional metal-removal processes.

In the short term, 3D printing is unlikely to replace traditional

manufacturing approaches for high-volume products such as cars. But it is making rapid inroads in product development, prototyping and low-rate production applications.

For example, we are already seeing 3D printed components on newer commercial aircraft. Today's higher-end 3D capabilities are particularly relevant for low production rate components with tight tolerances and metallurgical requirements.

One of the primary advantages of 3D printing in these applications is a significant improvement in the "buy-to-fly-ratio." In other words, manufacturers need only purchase the amount of material required for the finished component, rather than (at times) starting with 10 times as much and machining the piece in order to achieve both the required

dimensions and metallurgical properties.

At the same time, foundries are also leveraging 3D printing to enhance their own efficiency. Indeed, this survey found that 60 percent of metals respondents are already using 3D printing to dramatically reduce their product development life cycle.

Will 3D printing disrupt demand in the metals sector? In the short to medium-term, probably not. But as the technology continues to mature and expands to new applications, we expect it may start to impact the profitability of specialty metal forming and machining businesses – in particular low-rate casting, forging and extrusion operations – and the machining job-shops they support.





# Rethinking the supply chain

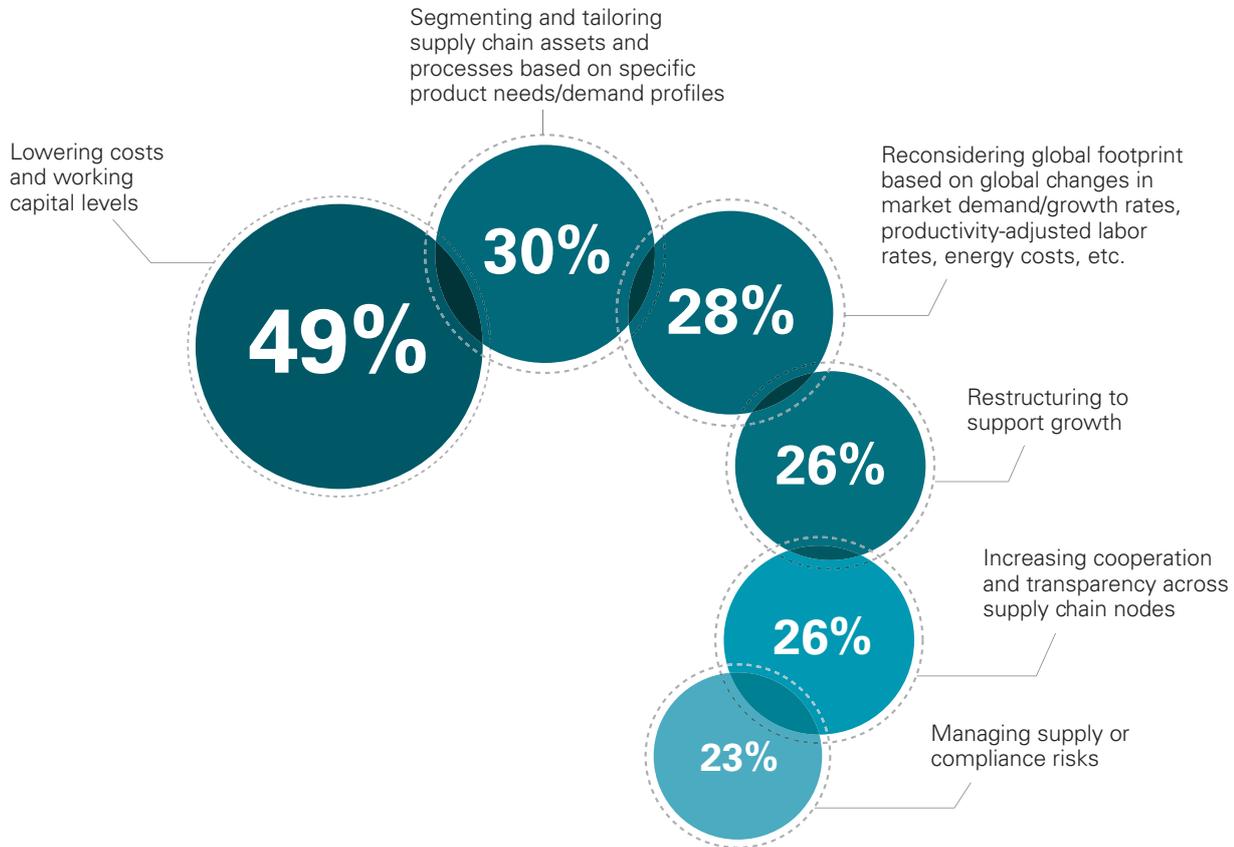
Supply chain cost management continues to sit high on the metals sector agenda as organizations start to reconsider whether their cost structures are driving or dampening competitiveness. Supplier performance and capability will be key going forward, yet few metals organizations seem to have the required visibility across their supply chain networks to drive improvements.

Continuing the trend evident across this survey, metals organizations also hope to wring cost savings and competitive advantage from their supply chains. Almost half of all metals respondents say that lowering costs and working capital levels is a top

supply chain priority over the coming 2 years while more than a quarter say they would focus on restructuring their supply chain to support growth.

Many seem to worry that their current supply chain structure is not fit-for-purpose in a more competitive

## Cost management tops the metals supply chain agenda



Note: Respondents selected top two options.  
Source: Forbes survey, January 2015.

environment. Almost a third of metals respondents say that one of their biggest concerns relates to the competitiveness of their supply chain; 30 percent say that the flexibility and responsiveness of their supply chain is creating challenges.

“Metals organizations are increasingly focused on becoming more competitive through new product launches and better demand-planning,” notes Erich L. Gampenrieder, Head of KPMG’s Global Supply Chain Center of Excellence. “The reality is that growth and new product launches tend to turn supply chains into increasingly complex

operations and that can often become a drag on agility and competitiveness.”

While costs and competitiveness rank high on the agenda, metals respondents admit that their greatest supply chain challenges stem from a lack of confidence in their suppliers’ performance and capacity. Indeed, supplier performance (in terms of risk, reliability and quality) and ensuring sufficient supplier capacity to meet demand rank as the top two challenges for metals organizations this year.

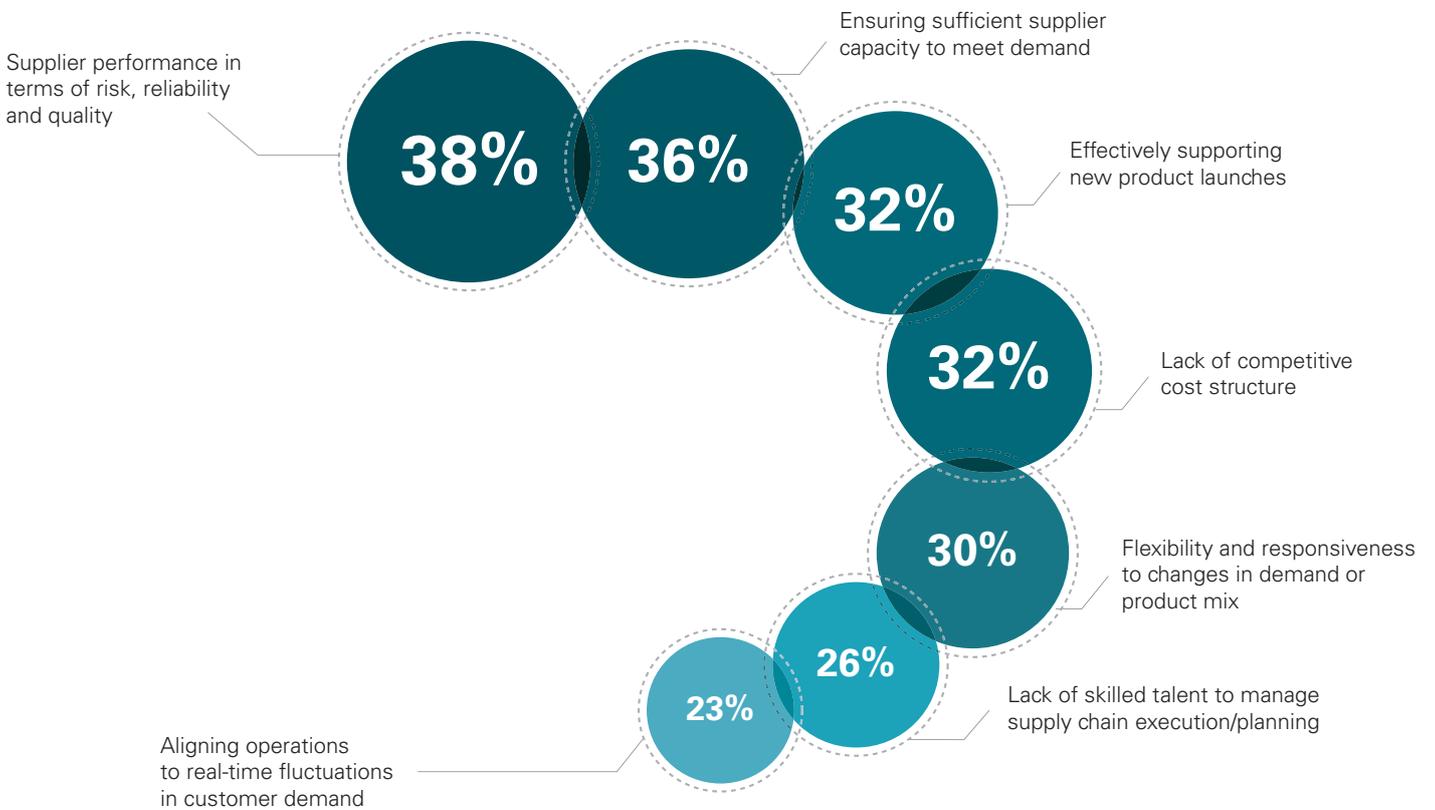
“We’re seeing metals organizations start to really focus on enhancing their supply chain in order to both reduce working capital – which has a direct

“The reality is that growth and new product launches tend to turn supply chains into increasingly complex operations and that can often become a drag on agility and competitiveness.”

and positive impact on cost – and to create better alignment to customer requirements which is critical in this ultra-competitive environment,” noted Eric Damotte. “But to do that, metals organizations will need much better visibility across the supply chain.”

Interestingly, visibility continues to be a key challenge for metals organizations with just 17 percent of respondents reporting ‘complete visibility’ into their Tier 1 and Tier 2 suppliers. The majority say they have either ‘some visibility’ or ‘no visibility’ at all into their Tier 1 suppliers.

## Supplier concerns rank high on the list of challenges facing metals organizations



Note: Respondents selected top three options.  
Source: Forbes survey, January 2015.

# KPMG perspective

## Don't stress about the short-term; India's long-term prospects are strong



**By K. Jayaraman,**  
KPMG in India

Those partial to short-term thinking are raising alarms about India's metals sector. Pointing to sagging demand from China, rising levels of low-cost imports, low levels of local demand and ongoing issues with iron ore mining, some pundits predict a rocky road ahead for India's metals sector.

Look to the horizon, however, and it quickly becomes apparent that India's long-term outlook is very strong and growing. Billions of dollars have been earmarked for new developments by the Modi government (largely in infrastructure

and city development) which, in turn, will drive demand for steel to new heights. The government has also been active in improving the level of transparency not only within the metals sector, but also within the mining sector on which it relies.

At the same time, India's economy continues to grow, supporting the emergence of a strong and consumer-focused middle class who increasingly want cars, refrigerators, computers as well as many other steel-based products.

The growth and development of India's 100-odd 'smart cities' will not only drive an initial frenzy of growth as real estate and infrastructure is developed, it should also create new demand as new businesses are established in these cities.

India's metals sector may be experiencing short-term challenges but all signs suggest that the sector's fundamentals are strong and that the long-term outlook is very positive. Indeed, I believe that most of the issues currently influencing India's metals sector should be resolved within the next 3 years or so. Once that happens, India's metals market seems certain to grow.

Our advice for foreign players seeking to participate in India's metals sector is to start now while strong opportunities still exist. Not only is there potential to gain valuable access to a growing market, but also the opportunity to build brand recognition, secure local experience and gain familiarity with local regulations and practices.

# Case study

## Reducing working capital in the steel sector



**By Mark Raddan**  
KPMG in the UK

Anyone involved in steelmaking knows that it is a highly capital-intensive business. And increasingly, steel producers are getting stuck in the middle of a working capital 'squeeze' as they struggle to carry both the working capital required for raw materials and a lot of the working capital exposure created by their increasingly diverse end-customer base.

Having already executed various internal efforts to reduce working capital levels, many steelmakers are now looking for ways to squeeze further reductions from their working capital levels. Our experience suggests that there are many

opportunities that steelmakers have yet to harness.

When one of the world's largest global steelmakers had reached the limit of what they could achieve internally, they challenged KPMG in the UK to find a further 200 million Great British Pounds (GBP) in working capital reductions. Nothing was sacred; the organization was willing to look at all areas of the business to uncover opportunities.

Leveraging their extensive bank of experience and working capital knowledge, KPMG in the UK conducted an organization-wide review of working capital levels, processes and controls. Hundreds of areas for improvement were identified across virtually every area of the business.

For example, by carefully segmenting the customer base and analyzing the specific markets and customers they

were selling to, the organization was able to renegotiate their customer terms and conditions to drive significant working capital savings. In a separate work stream, the relationship between inventory stocks and customer service was examined to identify where stocks could be better managed to free up more working capital and improve delivery performance to customers.

The headline numbers were significant. Over the course of 18 months and hundreds of initiatives, KPMG in the UK was able to free up more than the required GBP200 million in working capital savings. More importantly, the program also created a significant internal capability for working capital projects and helped to embed working capital processes and methodologies into virtually every part of the business.



# Five key take-aways for metals manufacturers

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1	Metals organizations will need to focus on product and process innovation to manage cost and profitability in order to resist competition as traditional trade flows are challenged by China's slowdown and global overcapacity.
2	New products, business models and disruptors will drive metals organizations to develop more agile, transparent and demand-driven supply chains and integrated business planning models. But supply chain visibility remains low and significant opportunity exists for greater collaboration.
3	Metals organizations must be focused on making bigger bets on R&D initiatives, attracting talent and creating broader, more inclusive innovation models and collaborating with tech-savvy partners to capitalize on new opportunities.
4	Stoked by difficult market conditions and continued capacity increases in some markets, metals organizations will need to focus on uncovering new opportunities for growth in order to absorb some of their growing stock; the imbalance between capacity and demand will continue to create challenges for the short to medium-term.
5	Facing a challenging M&A environment, metals organizations will need to increasingly focus on building partnerships with customers, suppliers and even competitors in order to achieve innovation, improve supply chain efficiency and maximize growth and profitability.

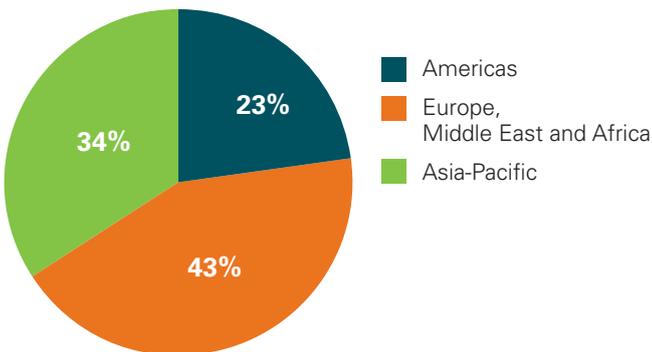
# About the survey

This *Global Metals Outlook* is part of KPMG's 2015 Global Manufacturing Survey. Data was collected by Forbes on behalf of KPMG in early 2015 and accompanying analysis was provided by senior KPMG metals leaders from across the firm's global network of Metals practices.

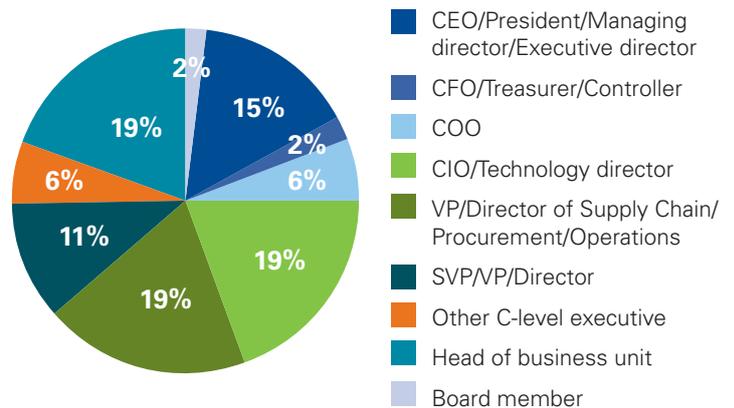
A total of 386 senior manufacturing executives (director level or above) participated in the survey, of which 12 percent – close to 50 unique organizations – come from the metals sector. More than a quarter of the metals respondents in this *Global Metals Outlook* represent organizations with revenues of between US\$10 billion and US\$25 billion, and more than a third represent organizations with revenues of between US\$5 billion and US\$10 billion.

Ninety percent of all respondents in the Global Manufacturing Survey held senior positions – including C-Level, Board Members, Senior VPs and VPs – at their respective organizations. Forty-three percent of metals respondents identify themselves as being based in Europe, the Middle East or Africa, and 34 percent in Asia. Almost a quarter are located in the Americas.

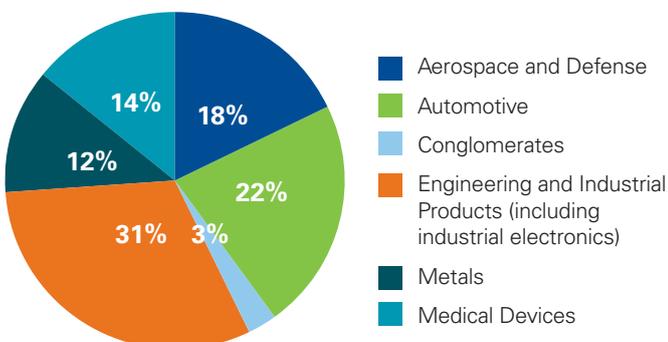
Where are you personally located?



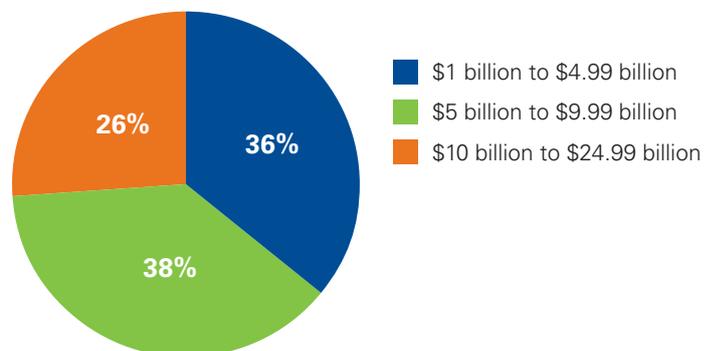
Which of the following best describes your title?



What is your primary sector within the manufacturing industry?



What are your organization's global annual revenues in US dollars?



Note: Percentages may not add up to 100 percent due to rounding.  
Source: Forbes survey, January 2015.

# How KPMG's Metals practice can help

KPMG's dedicated Metals network of professionals, based in member firms around the world, works with some of the largest and most successful metals companies.

Our global reach of over 1,900 professionals with metals functional experience and process capabilities bring together KPMG's Audit, Tax and Advisory practices to deliver a broad-ranging approaches to clients' activities within the industry.

With our global industry knowledge and involvement in key industry events, we believe we are truly the advisors of choice to the Industrial Manufacturing and Metals industry.

Our services focus on helping member firms' clients address major issues and market priorities facing the metals industry, including:

- Business model transformation
- High growth market strategies
- Market entry and expansion
- M&A and transaction services
- Corporate finance and valuations
- Private equity investment



**The growth agenda**

- Supply chain and distribution solutions
- Procurement transformation
- Improving operational efficiencies
- Finance transformation
- Internal improvement and sourcing advisory
- R&D management strategies



**Cost and competitiveness**

- Enterprise risk management
- IT advisory solutions
- Governance, reporting and regulatory services
- Debt advice and securitization
- Global tax and transfer pricing services
- Sustainability and the environment



**Risk, governance and regulatory matters**

KPMG's Metals teams offer proactive, forward-thinking services to member firm clients, helping them take advantage of the sector's growth potential and overcome the main issues and challenges within the sector.

# Global Industrial Manufacturing

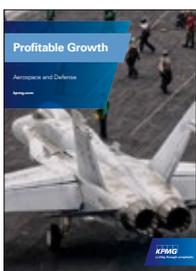
thought leadership

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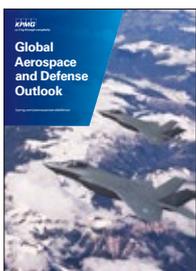
## Global Manufacturing Outlook 2015

The Global Manufacturer Outlook report provides a comprehensive overview of the global manufacturing sector, along with observations and insights from KPMG partners and industry experts and leaders based on 386 industry-wide executive survey and executive interviews.



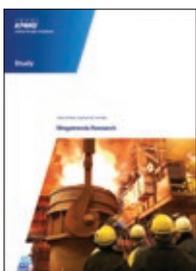
## Profitable Growth 2015

This white paper provides insights on the market shift and change in competitive landscape within the Aerospace and Defense (A&D) sector, resulting in companies exploring options overseas to drive new revenue opportunities.



## Global Aerospace and Defense Outlook 2015

Key findings from KPMG's Global Aerospace and Defense Outlook 2015, which surveyed A&D organizations around the world on the challenges, key issues and future strategies facing the industry.



## Industrial Manufacturing Mega Trends 2014

This report analyses 10 key trends in Industrial Manufacturing, providing added value with KPMG perspectives, approaches, solutions and KPMG services.

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