

19th Annual Global CEO Survey: Chemical industry key findings

Growing in complicated times / Addressing greater expectations / Transforming: technology, innovation and talent / Measuring and communicating success

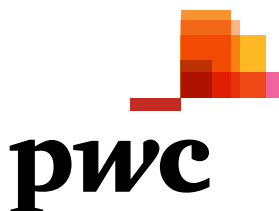
Redefining business success in a changing world

Chemical industry key findings



59

chemicals executives interviewed in 31 countries



About the 19th Annual Global CEO Survey

In this year's survey, global business leaders voice fresh concerns about economic and business growth. At the same time, they see a more divergent and multi-polar world where technology is transforming the expectations of customers and other stakeholders. In *Redefining business success in a changing world*, we explore how CEOs are addressing these challenges. We surveyed 1,409 CEOs in 83 countries and a range of industries in the last quarter of 2015, and conducted face-to-face interviews with 33 CEOs.

Today's business leaders have a tough job finding growth and delivering results year in, year out. But they know an even tougher task lies ahead: to prepare their organisations for a more complex future where customers and other stakeholders increasingly expect them to do more to tackle society's important problems.

To equip themselves for this challenge – and to build trust and ensure long-term success – CEOs are focusing on three core capabilities. Firstly, they're focusing even more strongly on customer needs as well as drawing on their organisational purpose – what their companies stand for – to define a more comprehensive view of how their business operates within society. Secondly, they're harnessing technology, innovation and talent to execute strategies that meet greater expectations. And finally they're developing better ways to measure and communicate business success.

About the Chemical industry key findings

This report looks in more detail at the views of 59 chemicals CEOs in 31 countries, as well as drawing on in-depth interviews with:



Bhavesh V. (Bob) Patel
Chief Executive Officer and
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Mark Vergnano
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Chemicals CEOs are facing a tough business environment, but many still see opportunities for growth increasing over the long term. Capturing these will be challenging though, and companies will need to move quickly or risk being beat out by more agile competitors. They rate climate change as a top force changing stakeholders' expectations, together with technological advances and a shift in global economic power. They're changing their organisations in response, with customer needs firmly at the centre and increasing their focus on building distinctive capabilities.

Growing in complicated times

Chemicals CEOs face a business environment that's becoming increasingly complicated to read and adapt to.

Many of their top concerns, like over-regulation, geopolitical uncertainty, exchange rate volatility and the Eurozone debt crisis reflect the complex global environment that chemicals companies are operating in. Chemicals CEOs also continue to be more worried than their peers about volatility in energy costs, despite the current low oil prices. That's a trend we've seen consistently over the last few years and reflects the importance that oil (and gas) have as inputs to the industry's cost base.

Many companies have made decisions to relocate production facilities to take advantage of shale resources in the US, so some of this concern may also stem from a lack of clarity over whether US shale oil and gas will continue to have a price advantage over other regions. In our recent white paper, *Glimpsing the future(s): Transformation in the chemicals industry*, we discuss how the industry's future might change if feedstock prices level out across regions.

Growing in complicated times

Chemicals companies will need to focus on distinctive capabilities to succeed

Margin management and EBIT protection measures are increasingly becoming a core capability for the industry. Many chemical companies have launched restructuring or fitness programmes in the past 18 months, and the survey suggests this will continue: 71% of chemicals CEOs say they will implement a cost-reduction initiative over the next 12 months. These sorts of cost containment and margin improvement programmes are an immediate reaction to a challenging market environment, but we also see some companies starting to consider more holistic transformations in the near future. By moving from single-function improvement efforts to a broader approach that takes an end-to-end perspective of the business, from customer needs through company capabilities, companies can move towards what PwC's Strategy& calls "next generation productivity."

Our survey results suggest that some chemical companies are planning to build some of these core capabilities in-house: 25% say they will insource a previously outsourced business process or function. At the same time, a smaller number of chemicals CEOs (19%) report their companies are planning new outsourcing measures. For these to be successful, companies will need to be careful to understand the impacts across the entire business.

In our experience, many chemical companies are not yet clear enough about how to create value and align this with distinctive capabilities. The industry's stakeholders have widely differing expectations, based on regional dynamics and major differences between customer industries. In other PwC research, only about a third (32%) of chemicals operations executives said that their companies tailor processes based on customer segments and their value propositions – compared to half of respondents across industries.

US continues to lead growth expectations

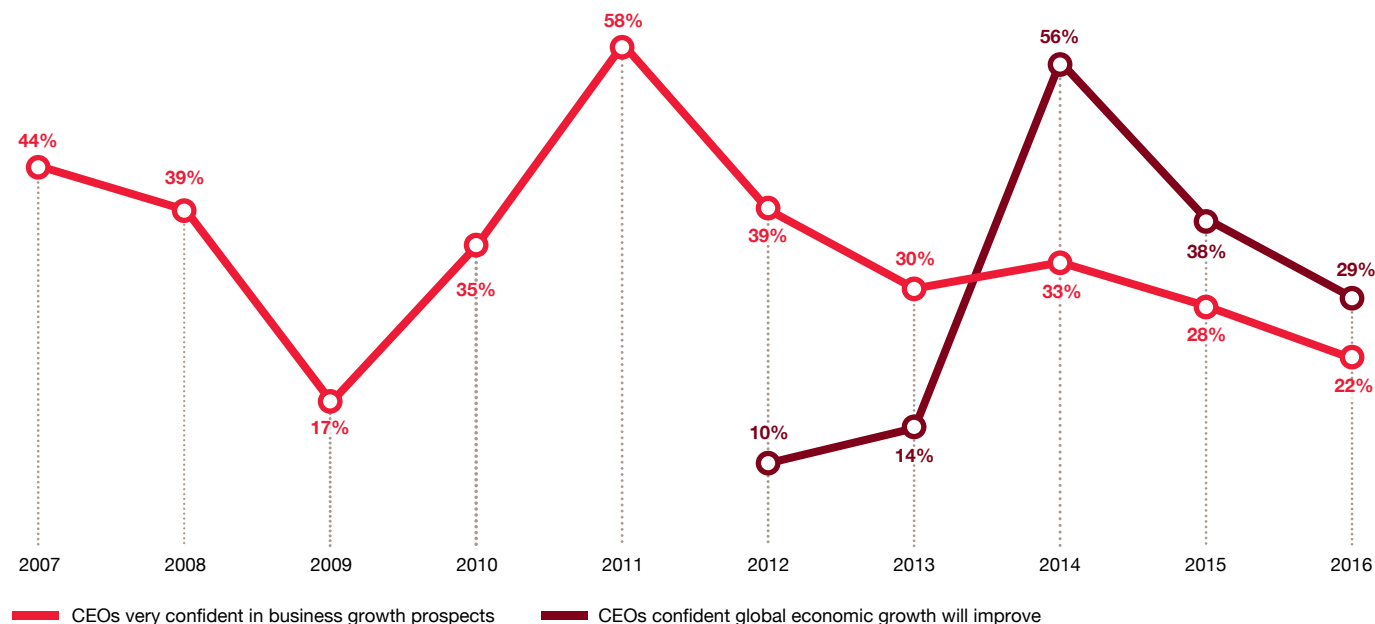
Over the past few years low feedstock costs driven by shale oil and gas resources coming online in the US have given the region a significant cost advantage; it's also the market where CEOs are most likely to expect revenue growth next year (44%), followed by China (34%), Germany (22%), India and Brazil (both 17%).

While we're going to face volatility in the future, we have to ask ourselves how we, as a company, deal with that? Our strategy is to do so by focusing both on the long-term and things we can control. There are certain things, like the price of oil and natural gas that we can't control from day to day. That's why it's important that we invest in a steady, strategic way. We do not try to time the cycle for growth and investment, but rather, make decisions that position us for long-term competitive advantage.

Bhavesh V. (Bob) Patel
Chief Executive Officer and
Chairman of the Management
Board of LyondellBasell
Industries N.V., Netherlands

Figure 1: Chemicals CEOs are less confident about global economic and business growth prospects

Q: How confident are you about your company's prospects for revenue growth over the next 12 months? Do you believe global economic growth will improve, stay the same or decline over the next 12 months?



Base: All respondents (Chemicals, 2016=59, 2015=60, 2014=57, 2013=77, 2012=88, 2011=59, 2010=46, 2009=48, 2008=41, 2007=36).

Source: PwC, Annual Global CEO Survey data

Note: In previous years, respondents were asked 'Do you believe the global economy will improve, stay the same or decline over the next 12 months?'

Today's market is tough, but opportunities are increasing

Just 29% of chemicals CEOs think global economic growth will improve over the next 12 months compared to 38% last year. Near-term confidence levels are down over last year too; only 22% of chemicals CEOs are very confident of revenue growth over the next 12 months, down from 28% last year and 33% in 2014.

Despite these challenges, 71% of chemicals CEOs say there are more opportunities for growth now than there were three years ago, while 64% say there are more threats. That suggests a high pace of change in the industry, which is facing a volatile and dynamic environment. The key will be understanding how to navigate changes in the marketplace: sometimes threats and opportunities stem from a single trend.

Resource scarcity and climate change is the top force for change in the chemical industry

Take climate change. More chemicals CEOs see it, together with environmental damage, as a potential threat to growth (69% vs 50% of CEOs overall). At the same time, our discussions with CEOs over the last several years have consistently shown that climate change is also a major opportunity, as many chemical products help other industries become more sustainable.

Many of the industry's major players increasingly integrate sustainability into everyday decision making in areas like investments and portfolio management. They're also using it to identify new growth opportunities. Some have even started to quantify the impact of more sustainable behaviour and its impact on its future strategy and competitiveness.

The chemicals industry stands out from other sectors in rating resource scarcity and climate change higher as a force impacting stakeholder views – 68% of chemicals CEOs believe that resource scarcity and climate change will be one of the trends most likely to transform wider stakeholder expectations of businesses within this sector over the next five years, compared to 43% of CEOs overall. For the sector, this concern likely focuses more strongly on climate change issues. The climate change accord reached at the United Nations Climate Change Conference in Paris in December 2015 highlights a growing global commitment to address emissions and their impact.

The other two trends CEOs are most likely to see shaping the future of the industry are technological advances and a shift in global economic power. Technology is becoming a driving force for operational improvement, while growing markets in China and elsewhere in Asia are potentially a major source of future growth.

CEOs may have these trends in mind looking further ahead: more than half of chemicals CEOs (54%) are very confident of revenue growth over the next three years.



Addressing greater expectations

Customers are chemicals CEOs' top priority

When they talk about stakeholders, chemicals CEOs most often think of their customers; 90% say customers and clients have an impact on their organisational strategy, making them the industry's most influential stakeholder group. That's true of most other industries as well. The chemical industry has run several initiatives to increase customer-centricity in recent years. And leading companies are focusing on building the right capabilities to achieve even greater customer focus. But what exactly do today's customers want, and how will that change tomorrow?

The chemicals industry serves commercial customers with high expectations. While 73% of chemicals CEOs believe that customers currently seek a mix of cost, convenience and functionality in products/services, 25% say customers are looking for a relationship with an organisation that addresses wider stakeholder needs. In five years, 41% believe that customers will prioritise working with these types of organisations. That's a big jump, and reflects a trend we are seeing across most industry sectors.

So chemicals companies are helping customers become more sustainable

Chemicals CEOs see the industry in the role of "catalyst" for their customers. That means developing the building blocks that can help them improve their own products. It's a strategy many chemicals companies are already pursuing and the emphasis is increasing – 37% of chemicals CEOs say they'll make significant changes to develop new 'ethical' products and services in response to changing stakeholder expectations, compared to 23% of CEO's overall.

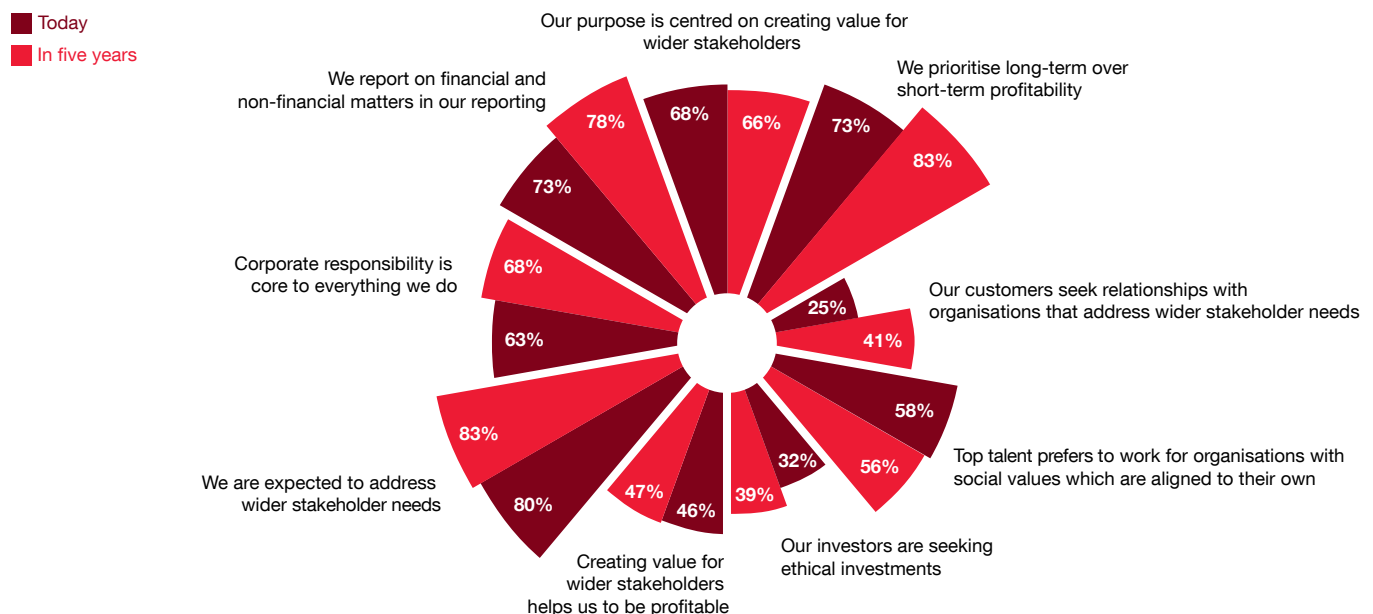
US-based Chemours President and Chief Executive Office Mark Vergnano points out that this trend isn't just driving growth in mature markets – it's expanding to emerging markets too: "In developing countries, as the middle class rises, there's a desire for environmentally friendly products. In China, people want a better environment, and the government is starting to support that demand."

If you're going to be a customer-centered company, you'd better be clear about what people want, not just your direct customers but also customers downstream from them, whether they're end users, NGOs, or someone else who's not directly in your value chain. It's important to understand every stakeholder's needs so you can better serve your markets.

Mark Vergnano
President and Chief Executive Officer,
The Chemours Company, US

Figure 2: Chemicals CEOs are addressing stakeholder needs, prioritising long-term over short-term profitability

Q: Thinking about the wider stakeholder expectations you see, which of these statements best describes your organisation today? Which of these statements best describes successful organisations in your sector in five years' time?



Base: All respondents (Chemicals, 59)
Source: PwC, 19th Annual Global CEO Survey

Often, developing sustainable products means working closely with supply chain partners. And indeed, more than two-thirds of chemicals CEOs (68%) say that supply chain partners have a high or very high impact on their organisation's strategy in regards to stakeholder expectations, compared to just 48% of CEOs overall. Further, 88% of chemicals CEOs plan to make changes, in many cases significant ones, to minimise the social and environmental impact of their supply chain.

Industry 4.0 is providing the toolset for digital transformation

One way they can get better is by implementing Industry 4.0. As we've seen in [other research](#), chemicals companies are increasingly seeing the need to connect with both customers and suppliers across the value chain. By driving horizontal integration with supply chain partners and customers, chemicals companies are able to better understand demand and improve efficiency.¹ That helps reduce usage of feedstock, energy and materials, making supply chains more sustainable and also improves relationships.

Transformative digital technologies can also help improve manufacturing performance by connecting functions vertically within the business, and even create new business models that go well beyond traditional chemical products and drive integrated service offerings. As these technologies mature, we believe both customers and other supply chain partners will expect chemicals companies to be able to respond quickly and more flexibly to changes in demand and other issues.

68%

of chemicals CEOs say supply chain partners have a high or very high impact on their strategy.



¹ PwC, Industry 4.0: Opportunities and Challenges of the Industrial Internet, 2015.

Transforming: technology, innovation and talent

All these positives come with some significant risks though, and chemicals CEOs may not yet be paying close enough attention to cybersecurity. Only around half of chemicals CEOs (54%) are concerned that cyber threats could impact growth – and just 8% are extremely concerned, compared to 21% of CEOs overall. We expect this number to rise significantly as digital transformation takes off.

Managing risk while getting better at business operations

Most chemicals CEOs recognise the needs of a wider set of stakeholders and are taking them into account, but that’s an increasingly difficult task in a multipolar world.

Even the most committed can find it extremely challenging to reshape their company while facing day-to-day battles on every front to fight off competition, grow revenues and cut costs. Every single chemicals CEO we surveyed is planning at least some changes to how their company defines and manages risk in order to respond to changing stakeholder expectations. More than half say they will make significant changes to minimise the social and environmental impact of their business operations. They’ll work harder to get the word out, too: 44% expect significant changes in how they manage brand, marketing and communication.

That’s not to say it will be easy. Some of the barriers CEOs say they face include additional costs to doing business (47%), conflicts between stakeholder interests and financial performance expectations and insufficient information about wider stakeholder expectations (34%) and customer unwillingness to pay (32%).

Innovation is the top tool for meeting expectations

More than two-thirds of chemicals CEOs think innovation and R&D generate the greatest return in terms of engagement with wider stakeholders (71% vs. 53% of CEOs overall). The winners in the innovation game will be those that harness technology and innovation to deliver products and services that are cost-effective, convenient, functional and sustainable. As this year’s *Global Innovation 1000* report shows, chemicals and energy companies still spend a lower percentage of revenues on R&D than peers in many other industries, like industrials or automotive, so some companies may need to consider increasing investments.

Figure 3: Risk management, R&D and innovation are the top areas in which chemicals CEOs are making significant changes to respond to stakeholder expectations

Q: To what extent are you making changes in the following areas in response to changing stakeholder expectations?



Base: All respondents (Chemicals, 59)
Source: PwC, 19th Annual Global CEO Survey

Another effective strategy can be using M&A to build capabilities in critical areas. We've observed that chemicals deals bring greater value when they are able to drive synergies which go beyond cost reduction and instead improve capabilities like R&D. 2015 was a banner year for deals and the momentum continued into the last quarter with the announcement of two mega-deals. Looking forward, 31% of chemicals CEOs say their companies plan a cross-border merger or acquisition over the next 12 months.

People will make the difference

Companies will need a new generation of entrepreneurs, engineers, mathematicians and technologists to harness technology and drive innovation. It's no wonder then, that 78% of chemicals CEOs are concerned about the availability of key skills, particularly with 46% planning to increase headcount in the coming year.

Some chemicals CEOs say their companies are already changing their talent strategies to attract, retain and engage the people they need to remain competitive. Nearly half are changing their focus on the leadership pipeline (46%), and almost as many (42%) will work on making performance management systems more effective. Around a third are turning their attention to "softer issues" like workplace culture and behaviours and their focus on diversity and inclusion. That makes sense, given that 58% of chemicals CEOs believe that today's top talent prefer to work for organisations with social values which are aligned to their own.

Surprisingly, though, very few – just 5% – are looking to predictive workforce analytics as a way of enhancing people strategies. And only 15% of chemicals CEOs say their companies are looking to enhance productivity through automation and technology.

78%

of chemicals CEOs are concerned about the availability of key skills.

In terms of employee engagement, communication is the most important thing that we as leaders can do. It's important that our employees understand where we're going and their role in helping the company get there, and doing that in a very clear, concise, and transparent way. I remember when I was an engineer and listened to CEOs talk. I always appreciated the ones who had more substance, who said things I could relate to and say, Yes, I can see where I have a role in making that happen.

Bhavesh V. (Bob) Patel
Chief Executive Officer
and Chairman of the
Management Board
LyondellBasell Industries N.V.
Netherlands



Measuring and communicating success

How should business be doing more in order to measure impact and value as stakeholder expectations evolve?

Chemicals CEOs listed key risks and environmental impact at the top of their list of areas they want to measure more effectively. That's somewhat different from the sample overall, where innovation and risks top the list, and it reflects the strong commitment sector companies are making to make their businesses as sustainable as possible.

As customer expectations change, CEOs also recognise the need to widen the scope of what they measure to include indirect variables that lie outside their immediate business environment. Several chemicals companies are already developing new holistic measures to quantify the impact of their product. These articulate social and environmental benefits that go well beyond economic factors.

Almost three-quarters (73%) of chemicals CEOs say their company reports on both financial and non-financial matters. In five years' time, 78% think that the most successful organisations in their sector will be doing this. And 85% of chemicals CEOs say that business success in the 21st century will be defined by more than just financial profit.

Chemicals CEOs see a need to communicate more around purpose and environmental impact

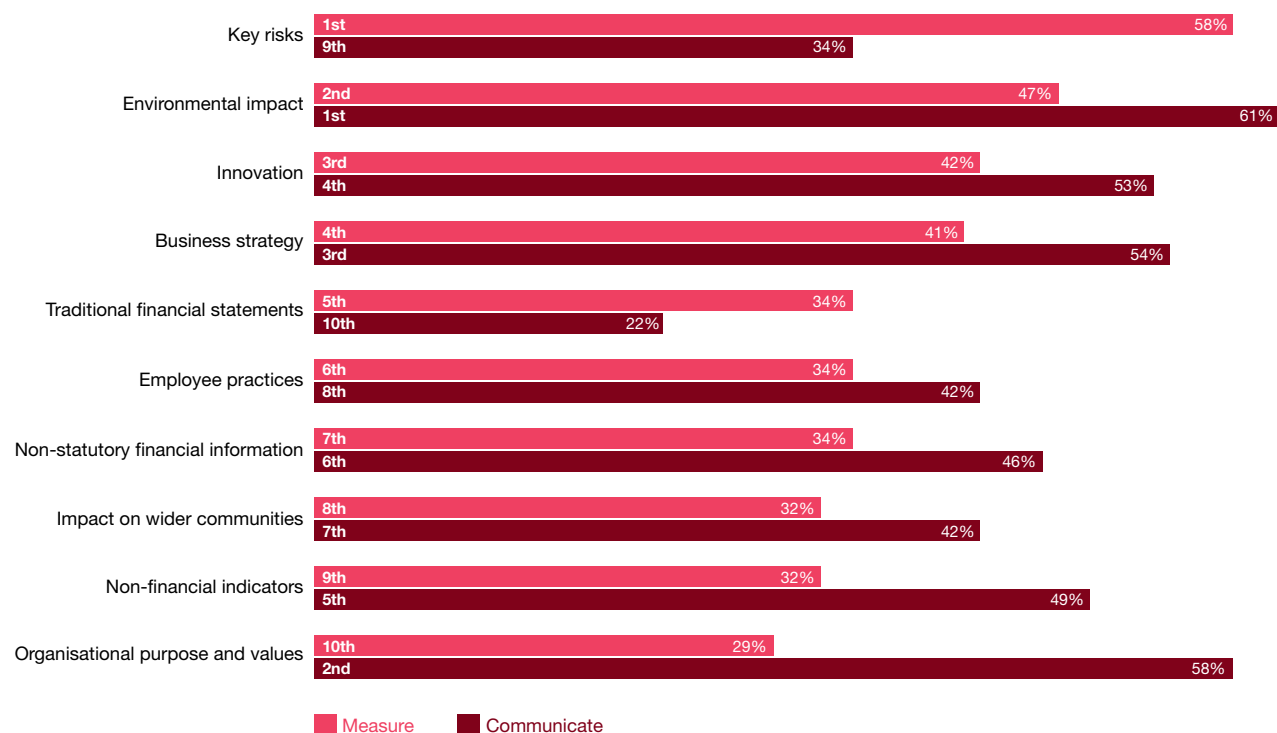
When it comes to communicating more, environmental impact and organisational purpose and values stand out, with around three-fifths of chemicals CEOs saying their company could do more in these areas. More than half (54%) also say they want to communicate more around their business strategy.

85%

85% of chemicals CEOs say that business success in the 21st century will be defined by more than just financial profit.

Figure 4: Chemicals CEOs are seeking to better measure key risks, innovation

Q: In which of the following areas do you think business should be doing more to measure/communicate impact and value for wider stakeholders?



Base: All respondents (Chemicals, 59)
Source: PwC, 19th Annual Global CEO Survey

We've already addressed some of the important reasons chemicals companies want to communicate more around environmental impact. And as the divergent world brings firms into competitive markets that may have very different rights, expectations and relationship to society, it makes sense that leaders want to make sure that their firm is very clear on what they stand for, and their distinctive advantage. We think this is why purpose/values and business strategy are both high on the list of areas that chemicals CEOs want to better communicate.

Chemicals CEOs told us about a wide range of contributions to society that often go unacknowledged, including the industry's part in making other products more sustainable, their support of local communities, and their contributions to prosperity and employment. More than two-fifths of chemicals CEOs are looking to increase their impact on wider communities (42%).

Getting it right can help attract tomorrow's key employees; 58% of chemicals CEOs believe that top talent prefer to work for organisations that share their values.

It's hard to put the chemical industry in one box and say everyone should use the same metrics. If you want to measure a company in a differential way, look at their top line. If they're creating growth, that's usually for two reasons.

Either they're developing new products or they're entering new markets. That's how we look at things.

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Acknowledgments

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Bhavesh V. (Bob) Patel,
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