

Delivering results

Key findings in the Chemicals industry

*15th Annual Global
CEO Survey*

Sector summary



Commitments to doing more business globally are accelerating in 2012 despite economic, regulatory and other uncertainties. CEOs see the fundamentals for future growth still squarely in place.

To understand how businesses are preparing for growth in their priority markets, we surveyed 1,258 CEOs based in 60 different countries and talked to a further 38 CEOs face-to-face for our 15th Annual Global CEO Survey. *Delivering results: Growth and value in a volatile world* explores CEOs' confidence in prospects, and how they are building local capabilities and creating new networks for new markets.

CEOs are adapting how they go to market, reconfiguring processes and at times entire operating models. They are also addressing risks that greater integration can amplify and are focused on making talent more strategic to pursue market opportunities.

This is a summary of the findings in the chemicals sector, based on interviews with 88 chemicals CEOs in 29 countries. To explore the full results of the 15th Annual Global CEO Survey, please visit www.pwc.com/ceosurvey.

Introduction

As 2012 starts, the outlook is more uncertain than ever. Weak demand in the industrialised economies, a slowdown in the emerging economies and greater volatility have all dented the confidence of the business community. Chemicals CEOs are no exception. Only 10% believe the global economy will improve in the next 12 months.

That said, 39% of chemicals CEOs are very confident they can raise the revenues their companies generate over the coming year. And they're even more positive about the long-term picture: 51% are very confident of being able to boost revenues over the next three years.

Their responses reflect the tough choices chemicals CEOs have already made. Over the past 12 months, 68% have implemented cost-cutting measures. More than half have also made strategic or operational changes to mitigate specific risks, although the initial phase of rapid adjustment seems to have ended. Only 19% of chemicals CEOs plan to make major alterations to their risk management strategies this year.

“In China and India, you have, respectively, two hundred million and one hundred million farmers cultivating small plots. By way of contrast, in Brazil, farms, on average, are more than a thousand times larger than those in China. The product requirements of a small farmer versus a large farmer are very different, so we have to customise our product development to meet the needs of each. The lesson here is that in order to bring products to market that meet the exacting needs of the consumer, one must be very close to the consumer.”

Dr. Marijn Dekkers
Chairman
Bayer AG, Germany

Making it happen

To put it another way, chemicals CEOs—like their peers in other sectors—are now focusing on the upside rather than the downside. They’re refashioning their business models to cope with a world where the risks and opportunities are increasingly interconnected but the sources of growth are often local. This presents three related challenges:

- Reconfiguring operations to meet local market needs
- Defending against micro risks that can become macro disruptions
- Making talent strategic

Balancing global capabilities and local opportunities

Most CEOs believe greater global integration is reshaping the business landscape. Chemicals CEOs are no exception: 66% believe the emerging markets will play a bigger role than the developed markets in their company’s future growth. But succeeding in this new environment isn’t just about making products cheaply in one place and selling them in another. It’s about becoming ‘multi-local’—building fully-fledged operations in key markets to forge deeper relationships with customers, innovate anew, take advantage of local talent and brands, reduce risk and capitalise on the advantages each market has to offer.

Chemicals CEOs are ahead of the game in several respects: 51% already have a major corporate presence in East Asia,

compared with just 41% of the total sample. Chemicals companies are also more widely represented in Latin America (43% versus 32%).

That’s not all. While CEOs in many other sectors are focusing primarily on developing new products and services, and capturing a larger share of their existing markets, chemicals CEOs are equally interested in geographic expansion: 23% see new geographic markets as their single biggest source of potential growth in the next 12 months (see Figure 1).

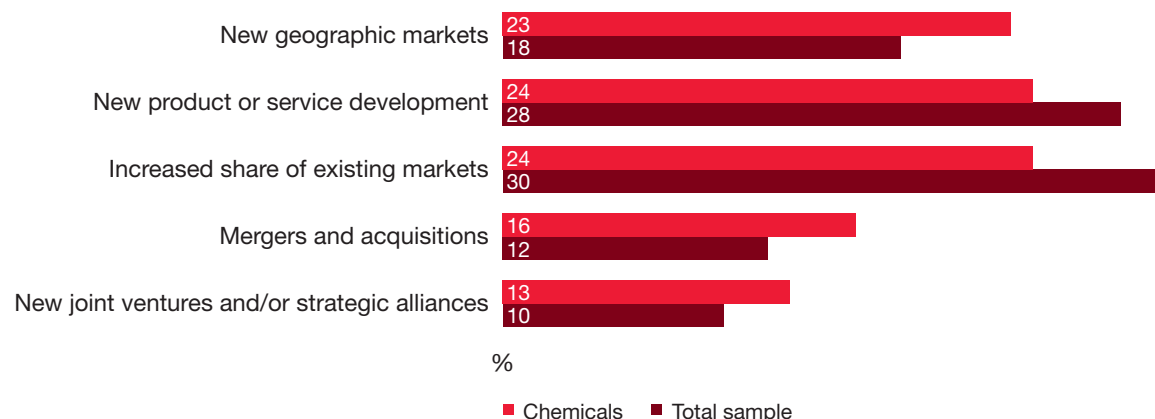
Naturally, chemicals CEOs aren’t ignoring traditional markets. When we asked which three countries (excluding the country in which they were based) they thought would be most important for their company’s growth over the next 12 months, 23% identified the US. But 35% cited China and 24% Brazil.

The desire to expand geographically probably also explains why 16% of chemicals CEOs favour mergers and acquisitions (M&As). In the first half of 2011, there were 60 M&As worth at least US\$50 million in the sector. More than 40% of these deals involved targets based in the BRIC economies.¹

Most chemicals CEOs with plans to expand in Asia and Latin America hope to build manufacturing capacity, tap local talent and get access to new customers, as distinct from setting up research facilities. And they’re in a good position to realise their aims: 61% are not concerned about being able to finance their company’s growth.

Figure 1: Chemicals CEOs are focusing on new geographic markets

Q: Which one of these do you see as the main opportunity to grow your business over the next 12 months?



Base: All respondents (Total sample, 1,258; Chemicals, 88)
Source: PwC 15th Annual Global CEO Survey

¹ PwC, ‘Chemical compounds: Second-quarter 2011 global chemicals industry mergers and acquisitions analysis’.

Resilience to macro disruptions and micro risks

Global risks often have local sources and last year was no exception: 61% of chemicals CEOs told us their companies were financially affected by the sovereign debt crisis in Europe. The Japanese earthquake, and resulting destruction of the Fukushima nuclear plant, also proved bad news for 34%.

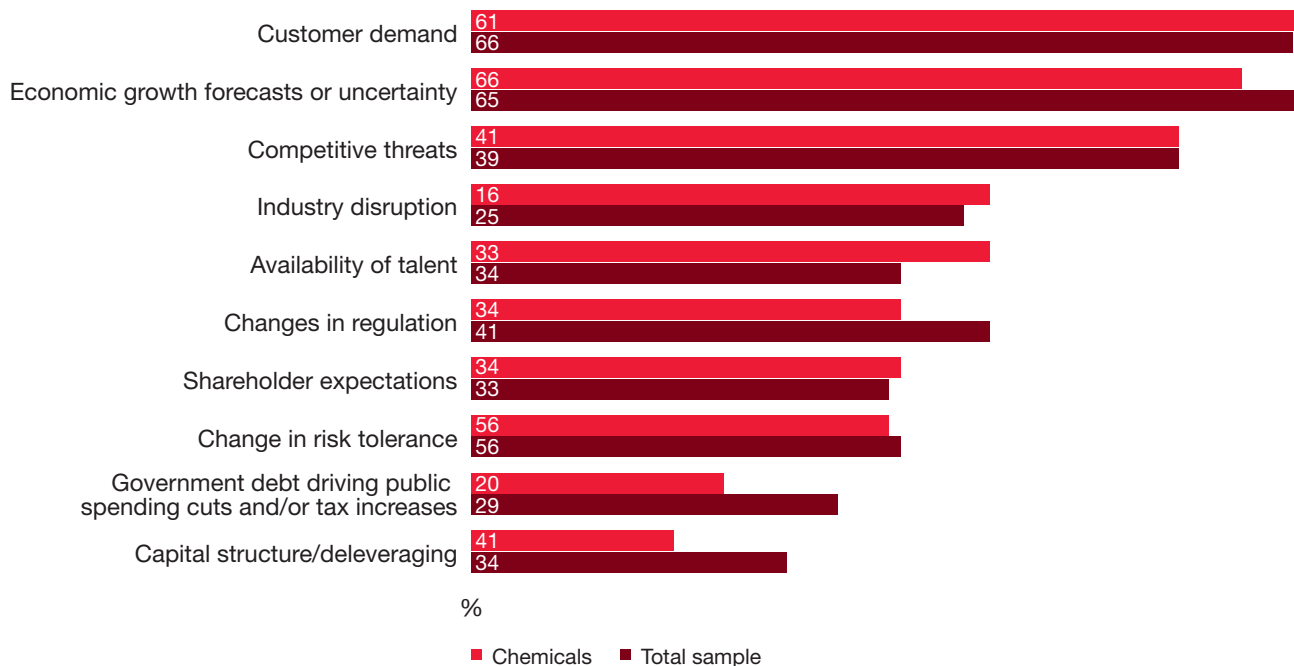
Yet chemicals CEOs are less likely to be focusing on risk management than on other strategic priorities this year, largely because they've already taken significant defensive steps. Fifty-seven percent intend to make some strategic changes, and 13% intend to make major strategic changes, over the next 12 months. But it's economic uncertainty, customer demand and competitive threats that are driving their plans (see Figure 2).

There are good reasons for this. The customer environment is becoming increasingly complex, as a result of shifting consumption patterns, the growing desire for 'green' products and the commoditisation of certain chemicals. New competitors are also surfacing, as the emerging markets mature.

It's obvious, then, why customer demand and competitive threats should feature so prominently on the radar screens of chemicals CEOs. What's more noteworthy is the fact that they seem relatively unconcerned about further regulation. Only 34% of chemicals CEOs envisage having to alter their strategies to deal with changes in regulation, despite the fact that last year saw serious attempts to reform the US Toxic Substances Control Act.²

Figure 2: Customer demand and competition top the strategic agenda

Q: Which of the following factors is influencing your need to change your strategy?



Base: All respondents anticipating a change in corporate strategy over the next 12 months (Total sample, 888; Chemicals, 61)
Source: PwC 15th Annual Global CEO Survey

² 'Landmark Senate Bill Aims to eform Toxic Chemicals Regulation', Reuters (19 April 2011), <http://www.reuters.com/article/2011/04/19/idUS282104554420110419>

Of course, many chemicals CEOs may simply be confident of their ability to handle such shifts, given that they've already had to master one of the most ambitious pieces of legislation in the industry's history. In 2010, all but the smallest companies had to register their products under the European Union's REACH programme, a process that went remarkably smoothly.³

Managing volatility

Entering fast-moving new markets also poses certain dangers. Indeed, choosing the right location is now more important than ever, as many countries downgrade their GDP forecasts and stock market indices go up and down like a jack-in-the-box. So chemicals CEOs are understandably nervous. A full 85% are somewhat or extremely concerned about the volatile economic climate. Similarly, 64% are somewhat or extremely concerned about the lack of stability in the capital markets, and 63% about exchange rate volatility (see Figure 3).

Managing extended supply chains

Managing a global supply chain is likewise more difficult than managing a national or regional one. Long supply chains boost lead times and the amount of buffer stock that's needed. The hazardous nature of some chemicals presents further challenges. It's vital to ensure that such products are shipped securely and that they can't be contaminated or diverted for illegal ends. This is why 51% of chemicals CEOs are somewhat or extremely concerned about the security of their supply chains, compared with the overall average of just 34%.

Controlling energy costs

Extended supply chains have yet another drawback; they increase the industry's already significant energy bill. Shipping costs are closely related to oil prices. Oil is also, of course, an input into many chemicals, so oil costs feed directly into chemicals costs in two ways. That explains why 63% of chemicals CEOs are somewhat or extremely concerned about energy costs, compared with just 46% of the total sample.

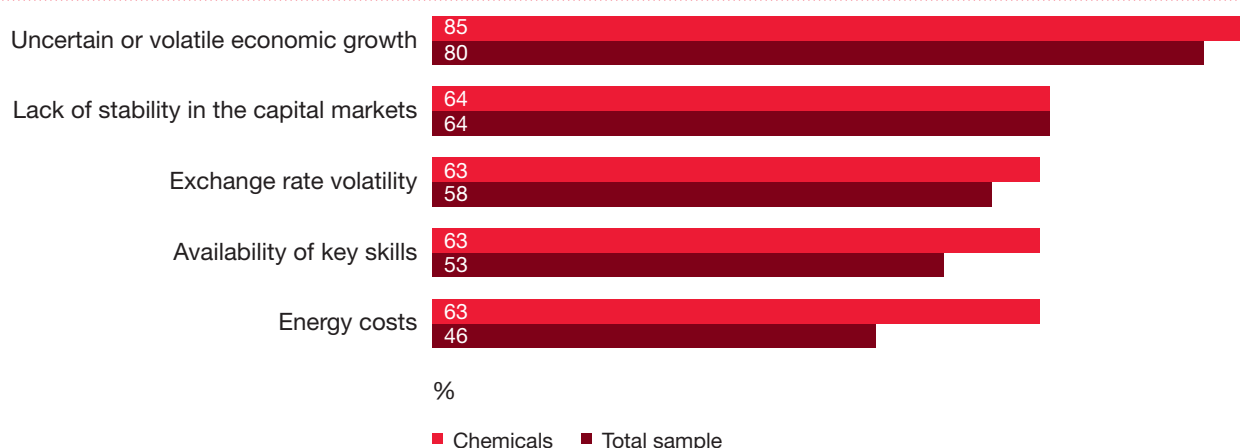
In fact many chemicals companies are actively taking measures to reduce their energy consumption, and some of these measures have the added benefit of cutting their carbon footprint.⁴ In 2010, for example, Dow Chemical and BASF jointly developed a new technology for manufacturing propylene oxide—a chemical intermediate with a wide range of uses in home appliances, automobiles, paints and pharmaceuticals. The new technology uses 35% less energy and produces 70-80% less waste water than the conventional process.⁵

Preventing bribery and corruption

Concerns about bribery and corruption come much lower down the list. Only 41% of chemicals CEOs are somewhat or extremely concerned on this score, even though it's a serious risk in the E7 countries (Brazil, China, India, Indonesia, Mexico, Russia, and Turkey). Our research shows that nearly a quarter of all chemicals companies have experienced an incident of economic crime in the past 12 months, and more than two-thirds of those crimes have been perpetrated in one of the E7 states.⁶

Figure 3: The five issues that worry chemicals CEOs most

Q: How concerned are you about the following issues?



Base: All respondents (Total sample, 1,258; Chemicals, 88)

Note: Respondents answering "somewhat" or "extremely" concerned

Source: PwC 15th Annual Global CEO Survey

3 Andrew Turley, 'A chemical regulation comes of age', *Chemistry World* (23 December 2010), <http://www.rsc.org/chemistryworld/News/2010/December/23121001.asp>

4 PwC, 'Chemicals: Sector climate change responses' (2010).

5 'Dow and BASF receive Presidential Green Chemistry Challenge Award for HPPO Technology' (June 22, 2010), <http://www.dow.com/news/corporate/2010/20100622a.htm>

6 Unpublished data derived from PwC's latest global economic crime, 'Cybercrime: protecting against the growing threat' (2011), <http://www.pwc.com/gx/en/economic-crime-survey/download-economic-crime-people-culture-controls.jhtml>

The US authorities are also ramping up their efforts to enforce the US Foreign Corrupt Practices Act, while the British, Danish and Italian governments are actively enforcing new anti-graft laws.⁷ So it's essential for chemicals companies operating in the E7 to take appropriate precautions, such as vetting any third parties with which they have a commercial relationship and performing due diligence during M&As.

The talent challenge

Creating a company that can draw on its global strengths to realise local opportunities and manage micro risks with macro implications are two of the key challenges chemicals CEOs face. The third is managing a global workforce and competing for scarce human resources. In fact, this is the one issue on which they most want to spend more time. Developing the leadership and talent pipeline is an even higher priority than meeting customers or creating a more efficient organisation.

Some 36% of chemicals CEOs reported that hiring people to work in the chemicals industry has become harder, primarily because of the shortage of skilled candidates. These difficulties have taken their toll: 42% told us talent constraints have impeded their company's ability to innovate over the past 12 months, compared with just 31% of the total sample.

Yet the chemicals industry has fared better than others in some ways. Only 43% of chemicals CEOs have experienced significant problems in recruiting high-flying middle managers, for example, whereas 53% of all respondents are struggling here.

One reason for this relatively successful track record may be the reporting structure most chemicals companies use. The chief human resources officer

reports directly to the CEO in 85% of the chemicals companies in our survey, six percentage points more than the overall average. That's a clear reflection of the importance chemicals CEOs place on recruiting and retaining the right people.

Teaming up

Many chemicals companies are also adopting imaginative new strategies to ensure they get the skills they need. A full 78% of chemicals CEOs believe that business has a role to play in developing the workforce, for example. And 66% are investing in measures to help educate the general populace in key markets.

Take the case of Hemlock Semiconductor Group, which is currently building a US\$1.2 billion plant to produce polycrystalline silicon in Clarksville, Texas. The company has funded the equipment of a hands-on lab at Austin Peay State University to train students to become chemical process operators.⁸

Moving people around the globe

Chemicals CEOs, like those in other industries, are also moving talented people from one market to another, although the flow is still mainly one way. Some 64% of chemicals CEOs plan to use experienced employees from their home countries to beef up the workforce in new markets, while only 14% plan to do the reverse.

Investing in new technologies

But transferring highly qualified employees to overseas locations is expensive and does nothing to address the innate scarcity of skills—which is why many chemicals CEOs are exploring alternatives. Thirty percent plan to partner with other organisations. Similarly, 31% plan to make significant

investments in new technologies specifically to circumvent skills shortages.

The US chemicals sector has already enjoyed a 34% increase in productivity over the past decade, thanks to better production technologies. The US Bureau of Labor Statistics predicts that this trend will continue, and that the number of people employed in chemical manufacturing will fall by 13% between 2008 and 2018.⁹

Advances in e-learning will also make it easier for chemicals companies to capture organisational knowledge and pass it on effectively to new employees. Such techniques are particularly well suited to the 'YouTube' generation, which is more comfortable absorbing information electronically than previous generations.

Targeting millennials and keeping boomers

Many chemicals companies will have to do far more to attract the 'millennials', though, since the industry's appeal to young high-fliers is currently limited. In a recent survey of MBA graduates conducted in the US, not one chemicals company ranked among the 100 employers MBAs most wanted to work for.¹⁰

So it's imperative that the industry promote itself more actively, both by showcasing the contribution chemicals make to society and by stressing what it has to offer able young people. Our research indicates, for example, that millennials are more interested in overseas postings than their predecessors: 71% want to work abroad at some point in their careers.¹¹

The industry will also need to adopt more flexible working patterns to encourage diversity and retain people at the other end of the age spectrum.

7 Melissa Aguilar, '2010 FCPA Enforcement Shatters Records', *Compliance Week* (4 January 2011), <http://www.complianceweek.com/2010-fcpa-enforcement-shatters-records/article/193665/>

8 Emily McMackin, 'Bridging the Talent Gap: Industry, Colleges Team Up to Train Workers' (23 November 2011), <http://businessclimate.com/blog/2011/11/bridging-the-talent-gap-industry-colleges-team-up-to-train-workers/>

9 Charles Pearson, 'Future Technology Changes in the Office' eHow.com (27 December 2010), http://www.ehow.com/list_7696572_future-technology-changes-office.html

10 '100 Top MBA Employers', *CNNMoney* (July 18, 2011), http://money.cnn.com/news/economy/mba100/2011/full_list/index.html?iid=EAL

“What is interesting and what is changing is that among Western companies, the ability to hire, develop and retain talent in the developing economies has become a major point of competitive differentiation. There are years when we hire more than 1,500 people in China. Where can we find them? How do we train them? They are all very young and inexperienced. In terms of competitiveness, the capacity to recruit in developing economies wasn't significant 10-20 years ago.”

Dr. Marijn Dekkers
Chairman
Bayer AG, Germany

Demographic changes are already influencing how chemicals companies in developed economies manage their workforces. BASF is one such instance; it's introduced day nurseries, sports centres, flexi-time and telecommuting.¹²

Getting the whole story

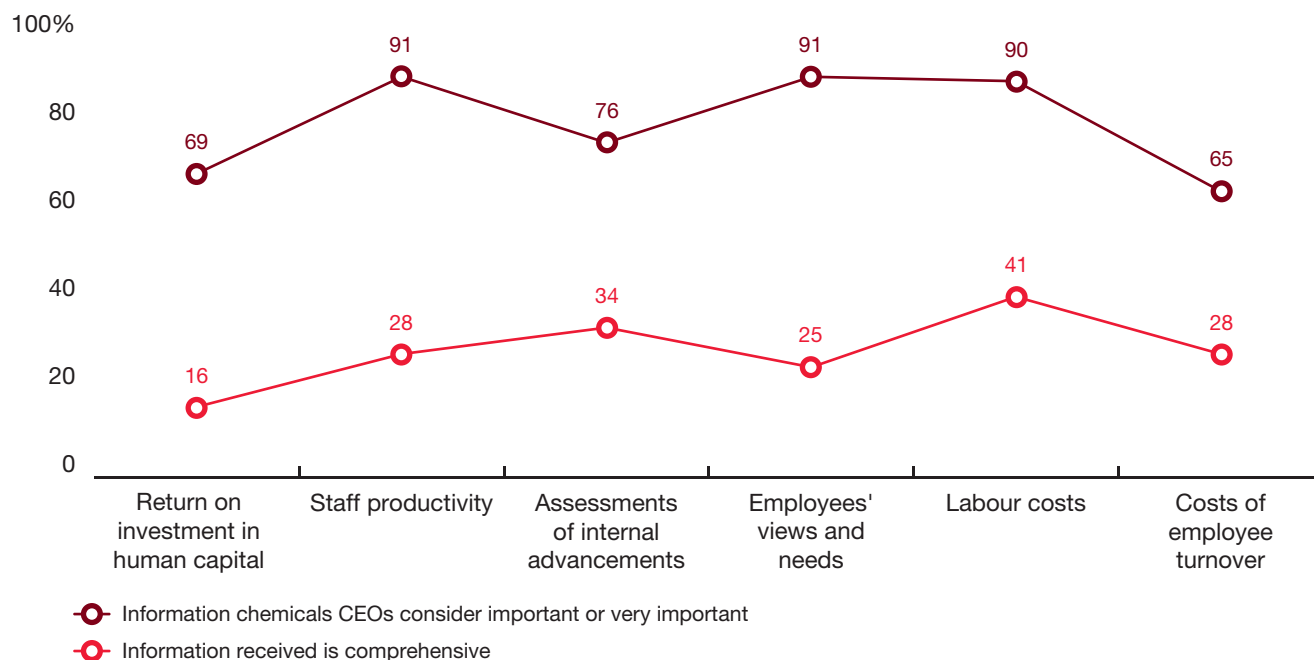
But adopting a more creative and flexible approach to the talent challenge is only part of the equation. The other is getting the information required to make the right decisions in the first place. Almost all chemicals companies track traditional indicators like productivity and labour costs. They're less likely to measure the cost of losing talent or the return they get on training and other such activities—which are also critical benchmarks. Even those who measure everything that matters don't get the whole story, though. More than half of chemicals CEOs would like to get

more information on all of the six key pointers listed in Figure 4.

Not that industry alone can fill the talent gap. That's partly a job for governments, although chemicals CEOs don't think it should be a top priority. They want governments to focus first and foremost on building a strong national infrastructure and stable financial sector. Creating a skilled workforce comes much lower on their wish lists. Given good roads, ports and communication networks, strong financial institutions and clear rules, chemicals CEOs are confident they can deliver results.

Figure 4: Chemicals CEOs want more information on key talent measures

Q: When making decisions, how important is it to have information on the following issues? And how adequate is the information you receive?



Base: All respondents (Total sample, 1,258; Chemicals, 88)
Source: PwC 15th Annual Global CEO Survey

11 PwC, 'Millennials at Work: Shaping the workplace', (December 2011).

12 BASF, 'Demographic change', <http://www.basf.com/group/corporate/en/sustainability/employees/demographic-change>; and 'Promoting work-life balance', <http://www.basf.com/group/corporate/en/sustainability/employees/work-life-balance?mid=0>

What's next?

Deciding which processes and capabilities need to be global, regional and local isn't just about taking advantage of growth opportunities, though; it's also about developing the flexibility to survive disruptions, wherever they may surface. That's not an easy balance to strike. We've distilled eight key questions from the feedback CEOs have given us in this year's CEO Survey:

1. How local is your global growth strategy?

2. How are you balancing global capabilities with local opportunities?

3. Is your talent strategy fit for growth?

4. Are your innovations creating value for your customers—or just novelty?

5. Do your strategic plans account for the macro impact of micro risks?

6. Are you responding to the needs and constraints of the communities in which you operate?

7. Where are the biggest opportunities for business and government to coordinate better?

8. Does your governance model account for the ways in which organisations' and people's expectations are changing?

If you'd like to discuss any of these questions, please contact:

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