

# *Growth reimagined*

## Pharmaceuticals and life sciences industry summary

*Key industry findings from the 14th Annual Global CEO Survey*



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The global economy is still recovering from the worst economic crisis in 75 years, as many countries grapple with the aftermath of the recession. So we set out to uncover how chief executive officers (CEOs) are approaching growth during a time when sustainable economic growth is far from certain. We surveyed 1,201 business leaders in 69 countries around the globe in the last quarter of 2010, and conducted further in-depth interviews with 31 CEOs.

The PwC 14th Annual Global CEO Survey documents a surprising level of confidence in this environment; chief executives are nearly as confident of growth this coming year as they were in the boom years before the crisis. The survey also revealed *where* CEOs see growth coming in 2011, and *how* they are going to achieve it. In 'Growth reimagined: Prospects in emerging markets', we show how CEO confidence is being driven by targeted investments in particular emerging markets – often far from home.

We also identified three strategic focal points to achieve that growth: innovation, talent and a shared agenda

with government. These three business imperatives have always had their place on the CEO agenda. But now, with their worst fears about the crisis behind them and an emerging recovery ahead, CEOs are adopting new attitudes and approaches, tailored to dealing with the issues of the multi-speed global recovery that they hope is underway.

This is a summary of the findings in the pharmaceuticals and life sciences (pharma and life sciences) sector, based on interviews with 53 pharma and life sciences CEOs in 25 countries. To explore the full results of the 14th Annual Global CEO Survey, please visit [www.pwc.com/ceosurvey](http://www.pwc.com/ceosurvey)

### Radical change

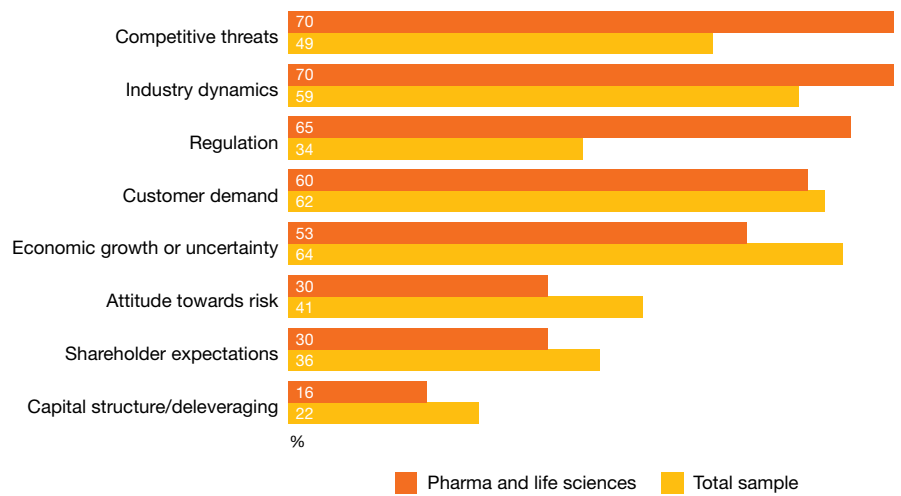
Last year pharma and life sciences CEOs were more confident about the future than their peers in most other industries, reflecting the sector’s resilience in the face of the struggling global economy. This year they’re still confident about the potential for both near- and medium-term growth, but they’re no longer outpacing CEOs in other sectors. Indeed, they’re less optimistic about the prospects for revenue growth over the next three years than CEOs in the overall survey sample.

This wariness may reflect the fact that the industry is undergoing radical change, with growing economic pressures and new business models, marketing strategies and research directions re-shaping the competitive landscape.<sup>1</sup> Pharma and life sciences CEOs are changing their strategies in response: 81% told us they’ve altered course over the past two years – and 36% have modified their strategies ‘in fundamental ways’. Their reasons for doing so differ dramatically from those of the sample as whole.

For companies in most industries economic growth forecasts or uncertainty are the primary drivers of changes in strategy. But pharma and life sciences CEOs are more concerned about competitive threats and industry dynamics (see Figure 1). It’s not surprising that they’re focusing on these two factors, with patent expirations and intense competition from generics casting a shadow over future revenues, relatively few safe, effective new

**Figure 1: Competitive threats, industry dynamics and regulation are the most important factors driving change for pharma and life sciences CEOs**

Q. Of the following 8 factors that may be changing in your business, which have significantly influenced your need to change your strategy?



Base: All respondents who stated ‘changed in fundamental ways’ or ‘somewhat changed’ at Q2a; Total sample 1,009; Pharma and life sciences, 43  
Source: PwC 14th Annual Global CEO Survey

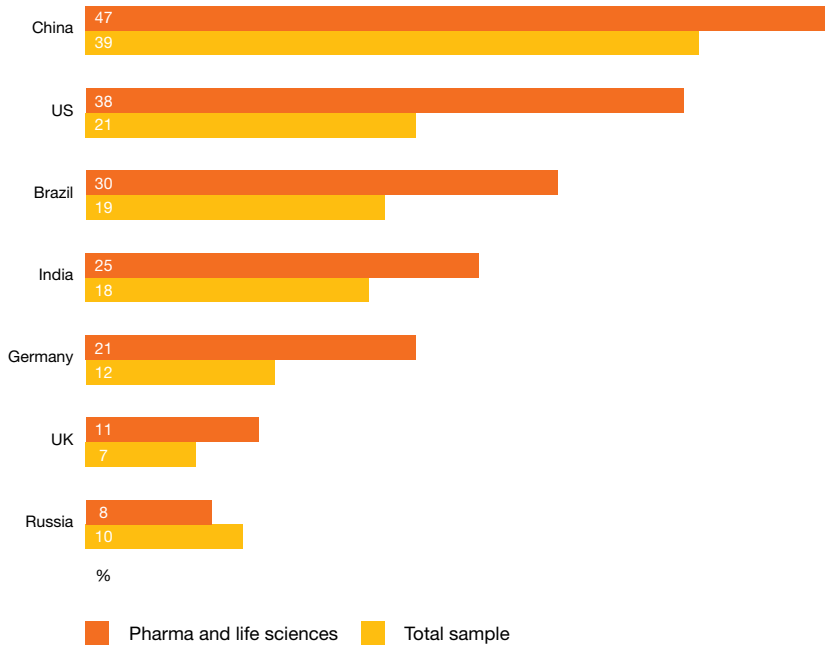
medicines coming through the pipeline and payers increasingly demanding proof of value for money. Regulation comes next on their agenda – reflecting the huge role governments play, both in setting research and safety standards and in purchasing medicines. Many pharma and life sciences CEOs also see customer demand as a critical strategic issue. Here, too, fundamental changes in the sector are at work, as patients take greater control of their healthcare and the emphasis shifts from the treatment of disease to its prevention, particularly in more developed markets.

*Eighty-one percent of pharma and life sciences CEOs are changing their corporate strategies.*

<sup>1</sup> We have discussed these trends in more detail in our Pharma 2020 thought leadership series, which is available for download at [www.pwc.com/pharma2020](http://www.pwc.com/pharma2020)

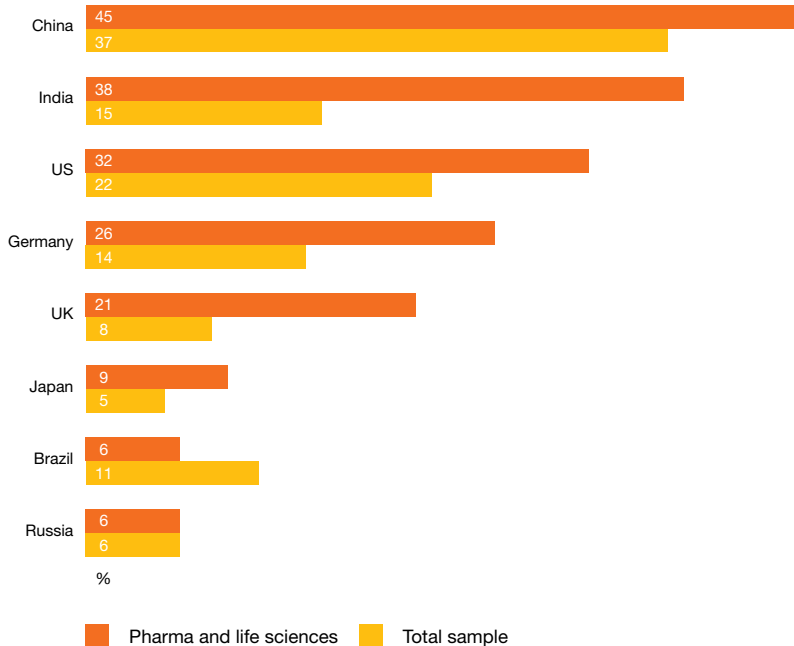
**Figure 2a: China tops the list of countries considered important to future growth**

Q. Which countries, not including the country in which you are based, do you consider most important for your growth prospects over the next 3 years?



**Figure 2b: China tops the list of countries considered important to future sourcing needs**

Q. Which three countries, not including the country in which you are based, do you consider most important to your future sourcing needs?



Base: All respondents (Total sample, 1,201; Pharma and life sciences, 53)  
 Note: Respondents could select up to 3 countries (Figure 2b)  
 Source: PwC 14th Annual Global CEO Survey

## Targeting emerging markets

The pharma and life sciences sector is becoming increasingly globalised, as demand for medicines rises in the emerging markets; a growing share of R&D migrates to Asia; national and regional agencies collaborate to harmonise the regulations governing the development of new treatments; and healthcare payers share data on the clinical and financial performance of medicines. CEOs in the industry are acutely aware of these trends.

## BRIC appeal

Two-thirds of the pharma and life sciences CEOs we surveyed anticipate that a substantial amount of their company's future growth will come from emerging markets. Indeed, just over half think emerging markets will be more important than developed markets in this respect. Pharma and life sciences CEOs are looking to China, Brazil and India, in particular, although they're not completely counting out developed markets such as the US and Germany (see Figure 2a). However, they're more likely than their peers in other industries to be changing their corporate strategies to tap the potential of the emerging world.

CEOs in every sector consider China critical to their companies' future sourcing needs. Pharma and life sciences companies are no exception: 45% rank China as one of the top three countries to which they'll be turning (see Figure 2b). Shanghai already has lots of pharma offices and some research facilities. We believe it will become the key cluster serving Chinese and wider regional markets by 2040. Investors think so, too; Shanghai has attracted over US\$1 billion in pharmaceutical foreign direct investment over the last five years.<sup>2</sup>

Some 38% of pharma and life sciences CEOs also expect to source much of what they need from India. The Indian

pharma sector is growing fast; we estimate that Indian pharma companies will earn \$50 billion in revenues by 2020.<sup>3</sup> Global pharma companies are partnering with local players, and improvements in IP protection should help spur growth. But, if India is to realise its potential, the government will need to develop a more robust healthcare system and expand coverage to the poorer populations.

## Global health risks

As international commerce and travel increase with globalisation, so does the potential for dangerous strains of viruses to travel around the world. Pandemics and other health crises could also have a major impact on the pharma and life sciences industry. Nearly half of sector CEOs are concerned about how such incidents could affect their companies' growth prospects over the next three years, which is more than double the overall average. They're also much more likely to explicitly deal with the issue in their strategic planning and risk management activities. Such events could offer opportunities for the sector as well as risks. So strategic planning may include how companies can help governments cope with, mitigate and even avoid such events.

## Putting customers at the centre of innovation

The pharma and life sciences industry has long been driven by innovation. CEOs in the sector overwhelmingly see new products and services as the main route to growth. And they're committed to equipping their companies for the task: 83% are increasing their commitment to generating innovations and safeguarding intellectual property, compared to 67% of the overall survey sample.

However, the research landscape is changing dramatically, as we indicated in 'Pharma 2020: Virtual R&D – Which path will you take?'<sup>4</sup> Advances in computer modelling will, for example,

<sup>2</sup> 'See the future: Top industry clusters in 2040 revealed', PwC (2010).

<sup>3</sup> 'Global Pharma looks to India: Prospects for Growth', PwC (2010).

<sup>4</sup> 'Pharma 2020: Virtual R&D – Which path will you take?', PwC (2008).

enable the development of ‘virtual’ patients who can be used to test the properties of new drugs much sooner in the development process. Building such models will be too large a task for any one organisation to tackle alone, but the results will dramatically accelerate the research process for everyone. Many pharma and life sciences CEOs believe governments can play a valuable role here, primarily by providing tax incentives: 43% expect government assistance to boost their innovation output, which is a significantly higher percentage than in the survey population as a whole (see Figure 3).

The places in which research is conducted are changing, too: hence the fact that 43% of pharma and life sciences CEOs think the majority of innovations will be developed in

markets other than their home country. Emerging economies are already starting to play a bigger role in innovation in the medical devices industry.<sup>5</sup> Some of these countries are also catching up in pharma R&D, although only 34% of pharma and life sciences CEOs anticipate that the top new global brands of the next decade will come from emerging markets. Clearly, the view of the regulators regarding innovation and clinical trials conducted in emerging markets will be critical, too – and there have been several recent instances of problems with trial results, but the long-term outlook is positive.

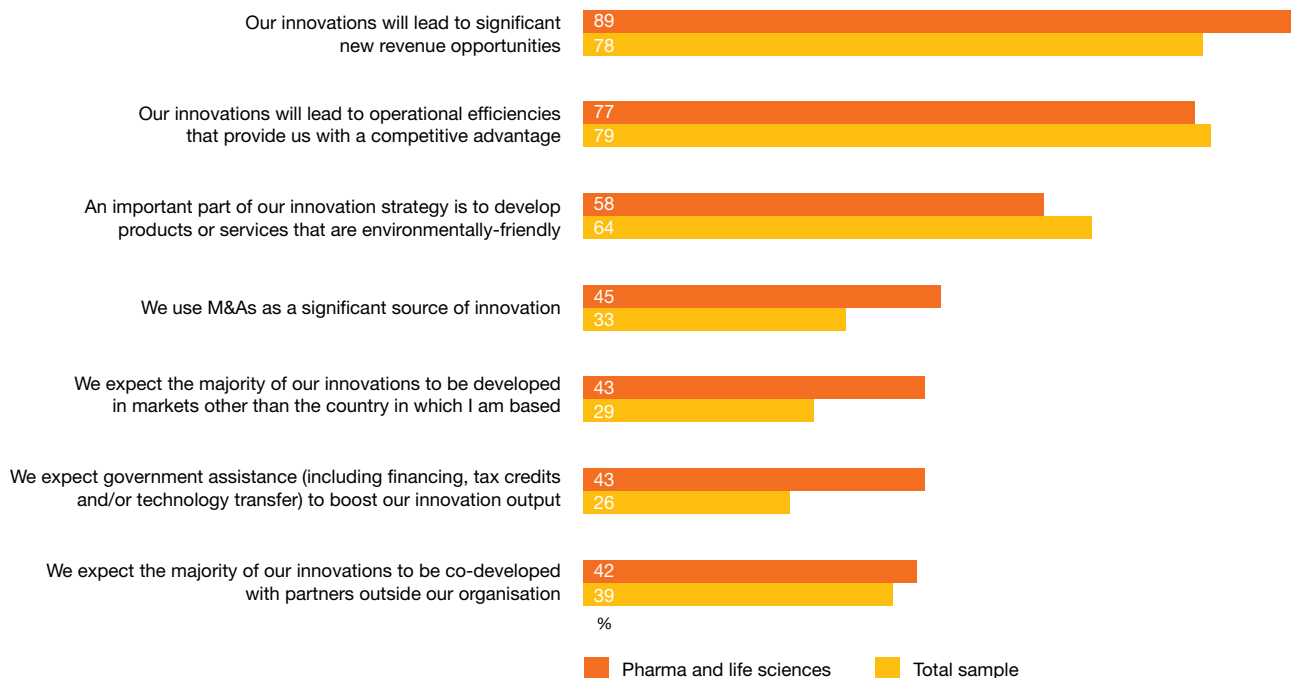
### Open innovation

Pharma and life sciences companies are facing bigger research challenges than ever before. If they’re to develop the

next generation of medicines, they will need a comprehensive understanding of how the human body works at the molecular level and a much better grasp of the pathophysiology of disease (i.e., the functional changes associated with, or arising from, disease or injury). They will also need to change the way they work, with greater collaboration between the industry, academia, the regulators, governments and healthcare providers an absolute must. Many pharma and life sciences CEOs recognise this imperative: in fact, 42% expect that the majority of their innovations will be co-developed with external partners. There are already a number of prominent advocates of the importance of open innovation in the life sciences. University of Toronto biochemist Alec Edwards is one of the most vocal. He argues that industry and academia need

**Figure 3: Innovation drives revenue opportunities for pharma and life sciences companies**

Q. To what extent do you agree or disagree with the following statements about your expectations regarding your company’s innovation over the next 3 years?



Base: All respondents (Total sample, 1,201; Pharma and life sciences, 53)  
 Note: All respondents who stated ‘agree’ or ‘agree strongly’  
 Source: PwC 14th Annual Global CEO Survey

<sup>5</sup> Medical Technology Innovation Scorecard: The race for global leadership’, PwC (2011).

to work together – and to post all their findings free on the Internet.<sup>6</sup> Dr Edwards practices what he preaches as head of the Structural Genomics Consortium, a not-for-profit organisation which is run out of three leading academic and clinical institutions and funded by GlaxoSmithKline (GSK), Merck and Novartis.

GSK is engaged in other open-innovation initiatives, too. The consumer healthcare division is actively soliciting ideas for products and innovations from external sources, for example, and has formed an open innovation team to guide prospective partners through the submission process. But GSK is certainly not alone. When, for instance, Johnson & Johnson discovered that an HIV drug it had developed wasn't proving very effective in patients, it partnered with hospitals and other institutions working with patients to find out why. What it learned about the clinical complexity of HIV led to the development of two new medicines.<sup>7</sup>

### *Listening to patients*

Patients are already beginning to play a bigger role in determining how they are treated, as the amount of money they spend on medicines rises and the Internet gives them access to more information. Armed with insights gleaned from educational websites,

discussion groups and blogs, they will not only want better, safer medicines, they will also want a range of satellite services they can tailor to their individual needs.

There are important implications here for the pharma and life sciences industry. It will need to take consumer preferences into account, particularly when developing new medicines, medical devices and consumer health products. Fifty-nine percent of the pharma and life sciences CEOs we surveyed are making strategic changes to encourage consumers to play a more active role in product and service development in the future. And a whopping 70% plan to capitalise on the rise of mobile devices and social networking. Such technologies can be used both to learn what patients think and to help them comply with their medical regimens.

### *M&As – a major source of innovation*

Forty-five percent of pharma and life sciences CEOs say they use M&As as a significant source of innovation. This reflects the increasing number of biotech companies being acquired by pharma concerns. Biotech and pharma are effectively becoming one industry – the biopharmaceutical industry – in the drive to improve R&D productivity.<sup>8</sup>

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<sup>6</sup> Megan Ogilvie, 'Secrecy slowing drug research', The Star (April 4, 2009), <http://www.thestar.com/article/613662>

<sup>7</sup> Shirley S. Wang, 'J&J's Stoffels Says "Open Innovation" is the R&D Answer', The Wall Street Journal (January 29, 2009), <http://blogs.wsj.com/health/2009/01/29/jjs-stoffels-says-open-innovation-is-the-rd-answer/>

<sup>8</sup> 'Biotech Reinvented: Where do you go from here?' PwC (2010).

## Bridging global skills gaps

The ‘war on talent’ was declared more than ten years ago, but few CEOs are prepared to declare victory. They know talent isn’t just a numbers game. It means finding, retaining and motivating employees whose skills match the company’s strategy, including its geographic fit. Given that 81% of pharma and life sciences CEOs have changed their strategies in the past two years, and that the sector is experiencing far-reaching shifts, their companies’ talent needs are changing, too.

So talent is one of the top items on the CEO agenda for 2011. This heightened interest reflects plans to expand the workforce at a time when two-thirds of all CEOs – and nearly three-quarters of pharma and life sciences CEOs – believe the supply of skilled candidates is limited. It’s resulting in moves to shore up recruitment and retention capabilities.

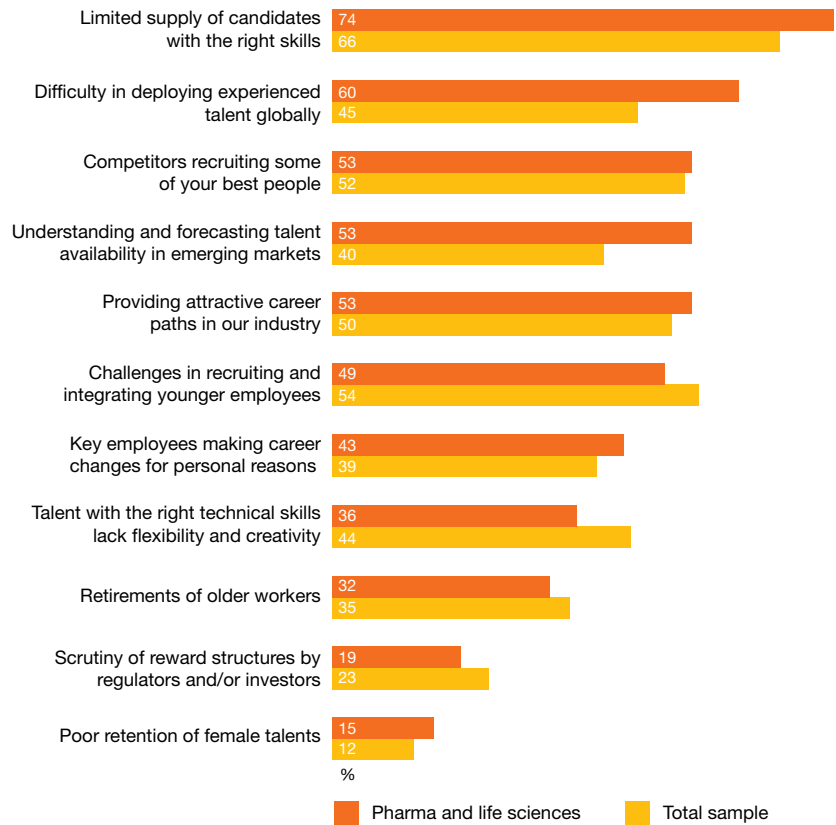
*Nearly three-quarters of pharma and life sciences CEOs believe there is a limited supply of candidates with the right skills*

### In pursuit of new people

Just over half of pharma and life sciences CEOs believe their competitors are out to snatch their best people, and that they’re facing difficulties attracting younger employees into traditional career paths (see Figure 4). Both issues are linked to the importance of intellectual capital for the sector. When competitors lure away experienced scientists, pharma companies risk losing valuable intellectual property. And young researchers bring a fresh perspective that can spark creativity.

**Figure 4: Finding candidates with the right skills and deploying staff internationally are priorities for pharma and life sciences CEOs**

Q: Considering the talent required for the success of your business over the next three years, what are the key challenges you expect to face?



Base: All respondents (Total sample, 1,201; Pharma and life sciences, 53)  
Source: PwC 14th Annual Global CEO Survey

Hence the fact that a higher percentage of pharma and life sciences CEOs are introducing new incentives to hire and hang onto younger employees than is the case in the full sample (55% versus 46%). The emerging markets are becoming a core part of many pharma and life science companies’ growth strategies, and talent shortages are just as acute there as in other parts of the world. Pharma and life sciences CEOs haven’t completely mastered the issue yet. They’re more likely than their peers in other industries to see understanding

and forecasting the availability of talent in emerging markets as a hurdle. They’re sending employees to global locations, though: 66% of pharma and life sciences are making some or significant changes to their people strategies to deploy more staff on international assignments. It’s not always easy. Sixty percent also report that they’re having trouble deploying experienced talent globally. That’s just the first step. Many multinationals are also looking to build strong managerial and research capability locally.

## Achieving shared priorities with government

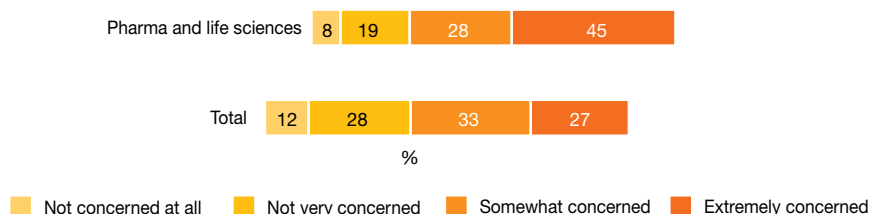
Healthcare has become a major item on the political agenda in countries around the world. The governments of emerging economies like China, India and Brazil want to extend healthcare coverage, but in a way that's still affordable.

Meanwhile, developed economies face demographic changes that are driving up healthcare costs. As retirement ages rise, more people will still be working when chronic diseases kick in – and so the social and economic value of good medicines and medical devices for such conditions will increase. But the pressure on costs will be huge. There will simply not be enough money in the pot to cover the world's future healthcare needs, unless the pharma and life sciences industry can cut its operating costs and margins on these products.

How governments regulate and price medicines and medical devices, and how they support R&D, will have an enormous impact on the sector. So will healthcare regulation, given that governments account for more than a third of the revenues of 42% of the pharma and life sciences companies we surveyed. But pharma and life sciences CEOs aren't confident that regulation will have a positive impact on the industry. In fact, they're more likely to be 'extremely concerned' about over-regulation hurting growth than the survey population as a whole (see Figure 5). Pharma and life sciences CEO are also quite pessimistic about the potential effect of government initiatives to reduce rising public debt. But many of them have already started to adapt. Nearly half of those we surveyed are making strategic changes to deal with potential public spending cuts or tax increases at home or abroad. There's no denying that the regulatory environment is changing dramatically – and some of these changes will increase

**Figure 5: Pharma and life sciences CEOs are deeply worried about over-regulation**

Q: How concerned are you, if at all, about over-regulation?



Base: All respondents (Total sample, 1,201; Pharma and life sciences, 53)

Note: Don't know/refused excluded

Source: PwC 14th Annual Global CEO Survey

the burden on the industry. For example, new treatments may be subject to pharmacoeconomic evaluations to prove their economic as well as clinical efficiency before government bodies will approve them for reimbursement.

We think some of the changes should actually be positive for the industry, though. One instance is the possible convergence in regulation of medical devices, pharmaceuticals, gene therapies and other treatments (something that's already happening in the UK). This could help reduce the cost of regulatory compliance.

Another example is live licensing, a staged approach to the approval of new treatments. Live licensing would allow the sponsoring company to market a new therapy on a restricted basis. With each incremental increase in evidence of safety, efficacy and value, the regulator would extend the licence to cover more patients, different indications or different formulations. This approach would mean that many medicines reached the market more rapidly, but it would also pose considerable challenges, including the need for more collaboration between pharma and life sciences companies and the regulators, and greater use of new technologies like electronic health records and pervasive monitoring.

But there's another dimension to the relations between the industry and government. This year we found that many CEOs believe business has a common social purpose with governments, and that it should share the burden of achieving certain mutual goals. Pharma and life sciences CEOs are no exception. Nearly half of those we surveyed say their companies are putting more effort into addressing poverty and inequality – areas in which the industry can make a huge difference to the world's wellbeing. For many, collaboration is the name of game, and industry examples abound. Bayer is working with the Global Alliance for TB Drug Development on the clinical development of a new tuberculosis therapy that should reduce the current six-month treatment regimen by a third. Should the studies prove successful, the new drug will be made available at reduced prices, particularly in developing countries where the disease is more prevalent.<sup>9</sup>

GSK is also using open innovation to help fight disease in the world's poorest countries. In January 2010, the company announced a number of initiatives, including the funding of an 'open lab' for new research, the free release of information on 13,500 compounds that might be useful in devising new treatments for malaria and several collaborations to pool knowledge that might lead to the development of new medicines for other neglected tropical diseases.<sup>10</sup>

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<sup>9</sup> 'Sustainable Development Report 2009', Bayer AG (2010).

<sup>10</sup> 'GSK announces "open innovation" strategy to help deliver new and better medicines for people living in the world's poorest countries' (January 2010), [http://www.gsk.com/media/pressreleases/2010/2010\\_pressrelease\\_10009.htm](http://www.gsk.com/media/pressreleases/2010/2010_pressrelease_10009.htm)

## *Globalisation reimagined*

Such moves are not just evidence of the fact that the industry recognises it shares certain social and humanitarian goals with governments, though; they are evidence of its increasingly global outlook. The vast majority of the CEOs in our survey – regardless of the sector in which they operate – are adopting targeted strategies that signal the advance of globalisation. But companies are not only affected by globalisation; the actions they take will also shape it.

The pharma and life sciences industry has long operated on a more global basis than most. Yet it's not immune to the forces of globalisation. It will need to develop new products and pricing strategies for emerging economies, as well as getting closer to patients everywhere. It's clear from the responses of the CEOs who participated in our survey that they are well aware of these challenges and preparing for a future in which the world really is flat.

*The forces of globalisation are changing the face of the industry. Pharma and life sciences companies will need to develop new products and pricing strategies for emerging economies, as well as getting closer to patients everywhere*



Our CEO Survey coverage includes a full report, in-depth interviews and a visual story of the data. Explore the entire story in the full report. Simply download at [www.pwc.com/ceosurvey](http://www.pwc.com/ceosurvey). To view other publications and learn about PwC services visit

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## Contacts

### Simon Friend

Global Pharmaceuticals and Life Sciences Leader

+44 20 7213 4875

[simon.friend@uk.pwc.com](mailto:simon.friend@uk.pwc.com)

### Sara Solomon

Global Pharmaceuticals and Life Sciences Business Development & Marketing

+44 20 7804 1014

[sara.solomon@uk.pwc.com](mailto:sara.solomon@uk.pwc.com)

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