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Introduction

Pharmaceutical and life sciences CEOs have reasons to be optimistic about a future which will see continuing growth through innovation, partnerships and the application of emerging technology, but they also recognise that reaching their full ambitions won't be easy. Complex challenges stand in the way. These are some of the findings we see in PwC's 21st Global CEO Survey, in which 70 pharmaceutical and life sciences CEOs from 31 countries participated.

Pharmaceutical and life sciences CEOs will have to balance the promise of new products and better medicines with a more consumercentric marketplace that demands real-time results, and where new competitors are staking a claim. Finding talent or re-skilling their workforce will be a key to success, but the top brass may have to do more to attract a diversified talent pool.



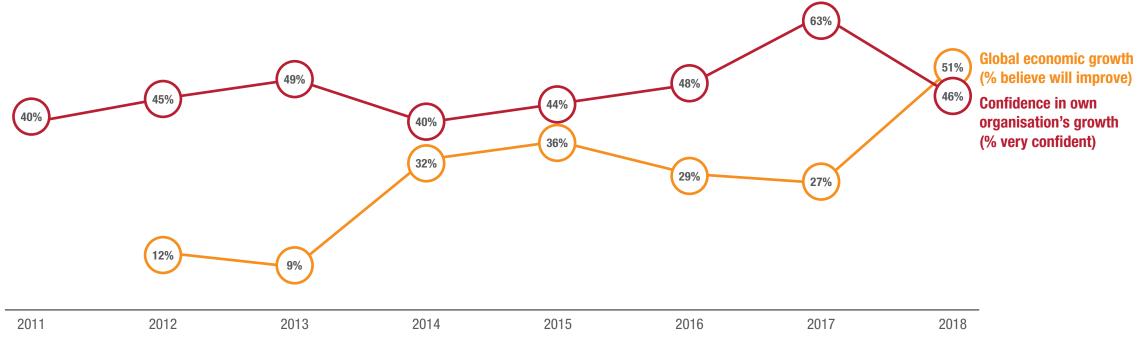
Michael Swanick Global Pharmaceutical and Life Sciences Leader



Exhibit 1

Pharmaceutical and life sciences CEOs are less confident about their own businesses, but more so on the global economy

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



Source: PwC, 21st Annual Global CEO Survey. Base: Pharmaceutical and life sciences respondents.



Two thirds of the pharmaceutical and life sciences CEOs surveyed are concerned about market disruption coming from direct and indirect competitors, both traditional and new. This is not surprising in a year that has seen cross-industry ventures, such as the Amazon partnership with JP Morgan and Berkshire Hathaway aimed at lowering healthcare costs for their US employees. Other examples of non-healthcare companies using their expertise to improve healthcare include Apple, which is already moving into the space with its wearable devices. And Google is using its artificial intelligence (AI) capabilities in several initiatives including disease detection and data-storage infrastructure.

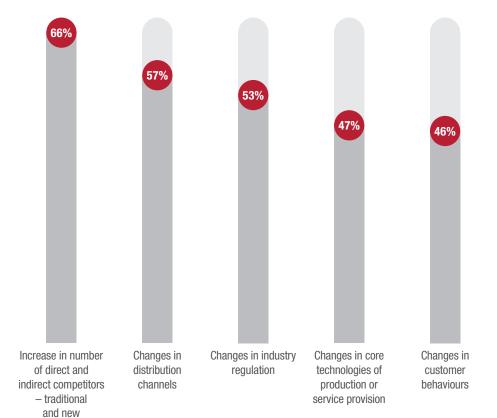
Exhibit 2

The top disruptive business trends for pharmaceutical and life sciences

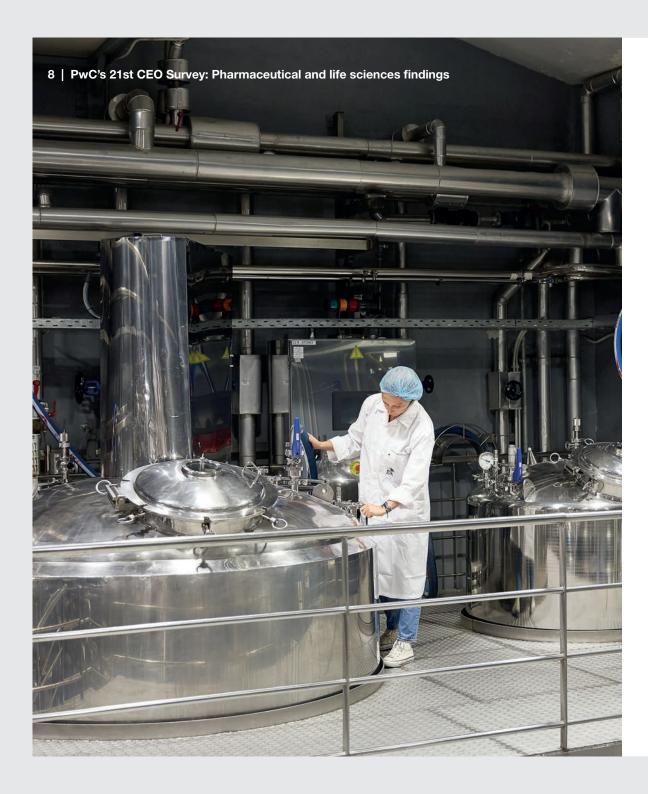
Q How disruptive do you think the following trends will be for your business over the next five years?



Chart shows percentage of respondents who responded somewhat disruptive' or 'very disruptive'

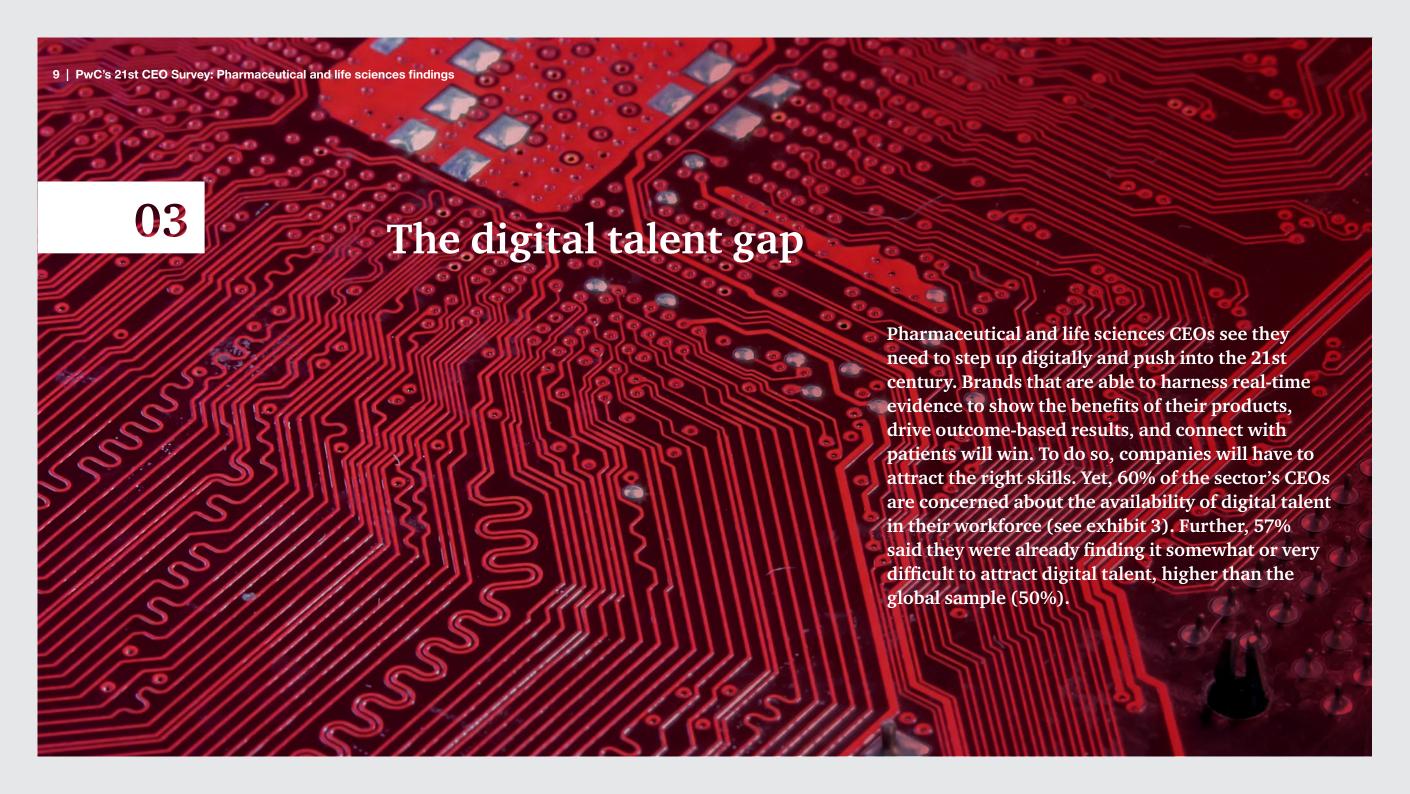


Source: PwC, 21st Annual Global CEO Survey.
Base: Pharmaceutical and life sciences respondents



Another hot topic: price. US President Donald Trump recently released his plan to reduce drug prices. It includes, among other initiatives, changes to government rules that the administration contends have allowed drugmakers and pharmacy-benefit managers to use the system to their advantage; moves to increase rebates and discounts for Medicare enrollees; and other incentives to get drugmakers to cut prices. In a way, the US is playing catch-up to other markets where governments as payers are no longer willing to subsidise high drug costs. This and other moves in the market to add purchasing leverage will threaten pharma margins and revive competition from generics.

Another issue weighing on pharmaceutical and life sciences CEOs is greater pressure to deliver business results in less time, which 71% of CEOs surveyed said their organisations face. More than ever before, the sector is dealing with healthcare buyers who expect greater value for money. With rising drug costs, these buyers are demanding that drug companies demonstrate the efficacy of their treatments. To remain competitive, big pharma will have to do things faster (like drug development) and cheaper for the patient, add more value for the same money, and become more proactive partners with patients and doctors in both wellness and cure.



Pharmaceutical and life sciences CEOs are concerned about digital talent

Q Overall, how easy or difficult is it for you to attract digital talent? How concerned are you about the availability of digital skills amongst your workforce?

Source: PwC, 21st Annual Global CEO Survey. Base: Pharmaceutical and life sciences respondents.



Pharma CEOs concerned about digital talent shortage (% responding 'extremely concerned' or 'somewhat concerned')

Finding it difficult to attract talent (% responding very difficult or somewhat difficult)



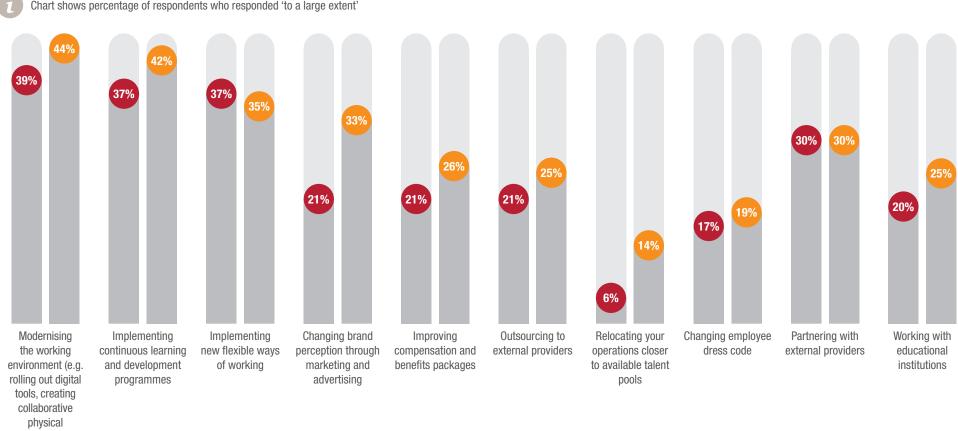
Pharmaceutical and life sciences CEOs are doing less, compared to the global average, to attract digital talent

Q To what extent is your organisation using the following strategies to attact or develop digital talent?

But when asked what strategies they are following to attract digital talent, less than half reported they are modernising their working environment (39%) and even fewer are taking up other tactics, lagging behind other industries in our global sample (see exhibit 4).

Partnerships will be key. Already 30% of pharmaceutical and life sciences CEOs say they are partnering with external providers to attract or develop digital talent. As data and analytics, artificial intelligence, and other emerging technologies become table stakes in the sector, we may see more pharma companies team with technology counterparts to gain required capabilities and fill the talent pipeline. Partnerships will likely continue to emerge with both big tech players, and smaller start-ups.

Chart shows percentage of respondents who responded 'to a large extent'



Pharmaceutical and life sciences
 Global

environments)

Source: PwC, 21st Annual Global CEO Survey. Base: Pharmaceutical and life sciences respondents

Indeed, pharmaceutical and life sciences CEOs are maintaining their optimism about the economy and, to a somewhat lesser degree, their own company's future. However they are well aware of the hurdles they must clear to continue to succeed. To grow, they will need new and better medicines with proven results and that are priced right. They will also have to find ways to capitalise on the wave of tech changes, and, on a related note, will need to hire the right people with the right skills to be successful in this challenging environment.



21st CEO Survey Methodology

In the fall of 2017, PwC conducted 2,223 quantitative surveys with CEOs based in 85 countries. Most of those surveys (77%) took place online, with the remaining by phone (11%) or by post or face-to-face (12%). Of those 2,223 responses, 70, or 3% were from pharmaceuticals and life science companies.

Details on those 70 respondents:

- 54% had been with their company fewer than six years
- 66% were at least 50 years old

Their companies:

- 60% were privately owned
- 69% had less than \$1 billion in annual revenues
- 70% had fewer than a thousand employees

Notes

- The overall report on the CEO survey uses only 1,293 responses, not 2,223, in order to achieve a representative global sample.
- Not all figures add up to 100%, due to rounding and the exclusion of 'neither/nor' and 'don't know' responses.
- The base for figures is 70 (all pharma respondents) unless otherwise stated.

We also conducted face-to-face, in-depth interviews with CEOs and thought leaders from five continents over the fourth quarter of 2017. Their interviews can be found on our website at ceosurvey.pwc.com, where you can also explore responses by sector and location.

The research was undertaken by PwC Research, our global centre of excellence for primary research and evidence-based consulting services

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