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20th CEO Survey

20 years inside the mind of the CEO ...What's next?

Introduction, methodology and participants

Key findings for the oil & gas industry

Competing in an age of divergence

Managing man and machine

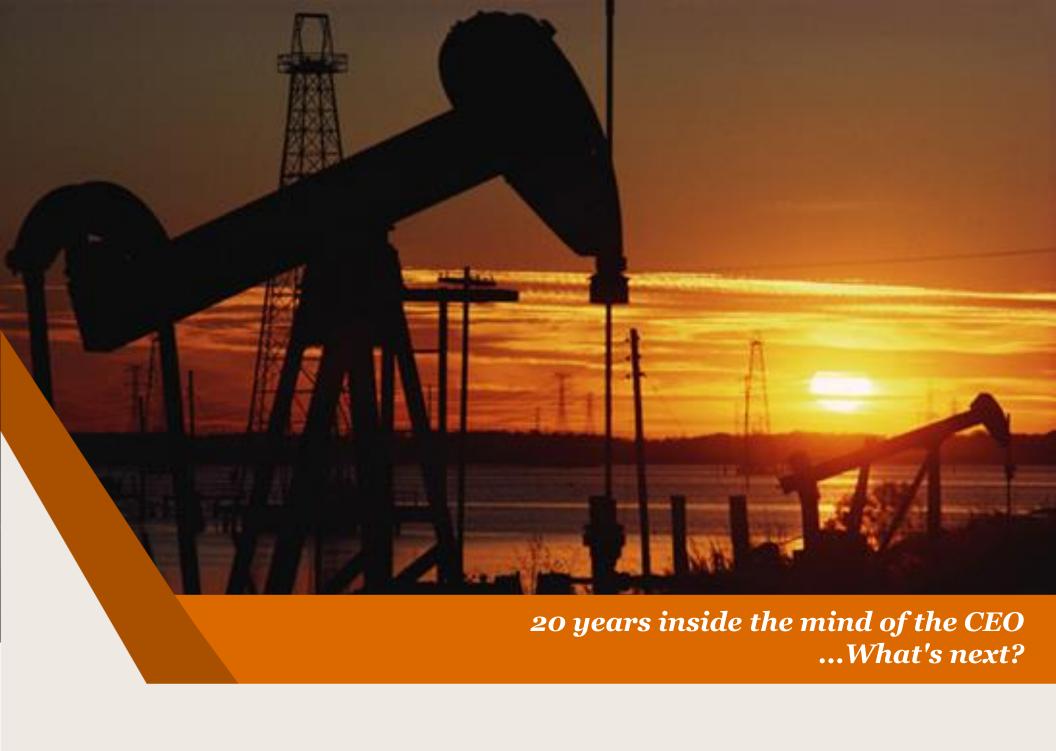
Gaining from connectivity without losing trust

Making globalisation work for all

Digital tools and resources

Questions







Fieldwork in numbers – All industries

1,379 interviews completed

63% online

2,900

 ${\it Global\,PwC\,CEO\,panel\,members}$

invited to participate via online survey

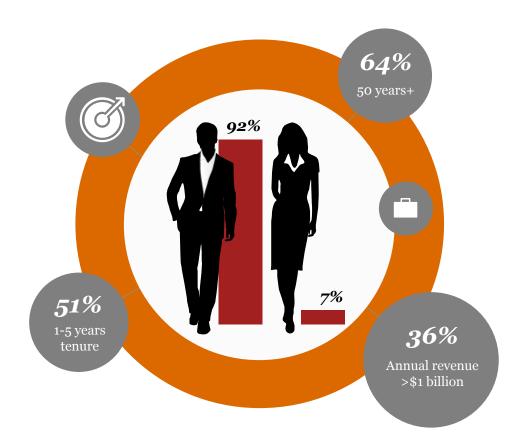
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28% phone

79 countries

between 26 Sept and 5 Dec 2016





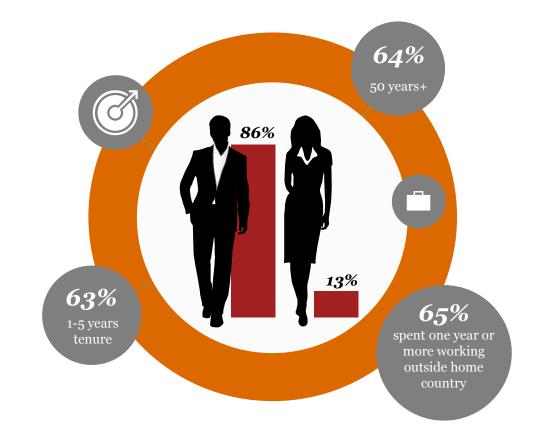
Fieldwork in numbers - Oil & Gas only

83 interviews completed

39 countries

22% with some government ownership or backing

49% Revenues \$1.0B or higher



In-depth interviews



20th CEO Survey

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20 years inside the mind of the CEO...What's next?

Over the past 20 years, CEOs have witnessed tremendous upheavals as a result of globalisation and technological change.

Yet greater convergence has come with greater divergence.

CEOs are standing at the crossroads:



Competing in an age of divergence



Managing man and machine



Gaining from connectivity without losing trust



Making globalisation work for all











Over the last 20 years, CEOs have witnessed tremendous upheavals as a result of globalisation and technology

In trade



- 4x trade flows
- 5x financial flows
- BRIC economies

In technology



- Exponential rise in global online traffic
- Google, Wikipedia, Facebook, Alibaba
- Horizontal drilling, hydraulic fracturing

In society



- Lifting 1 billion out of extreme poverty
- New emerging middle class

... however

- Inequality is on the rise
- Mistrust in business
- Growing social instability
- Rise in populism

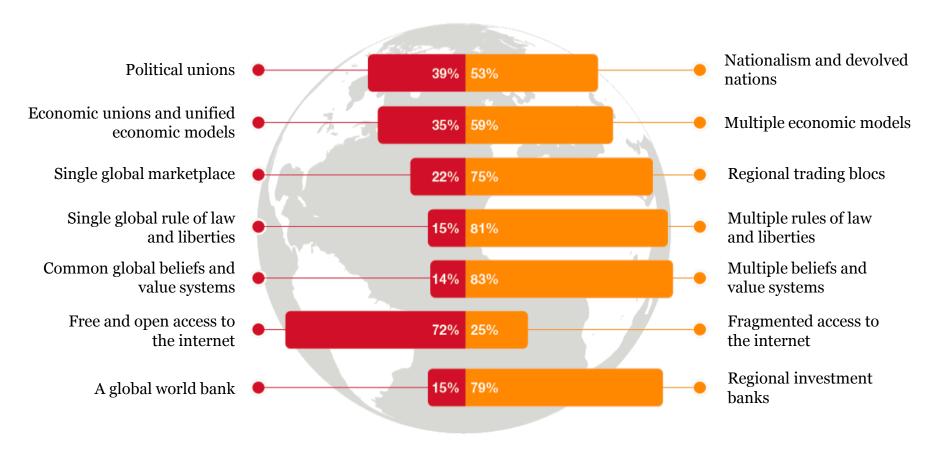








But, what's the world coming to?





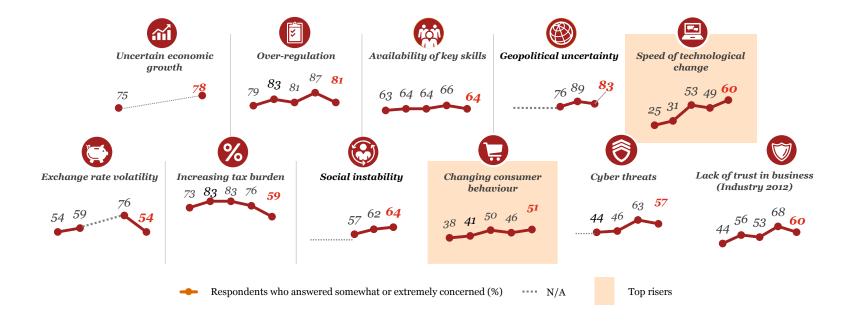






More causes for concerns

Oil & Gas CEOs' levels of concern continue to rise across a number of potential threats this year, with speed of technological change, changing consumer behaviour, cyber threats and lack of trust in business seeing the greatest rises.



Base: 0&G respondents (2017=83; 2016=71; 2015=72; 2014=59; 2013=48)

Q: How concerned are you about the following economic, policy, social, environmental and business threats to your organisation's growth prospects?



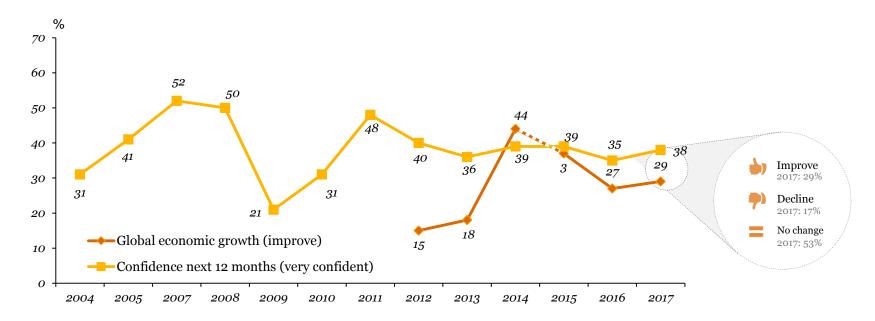






Uncertainty has become a way of life

CEO short-term confidence (all industries) has risen compared to last year and on a par with 2014 and 2015.



Base: Base: All respondents (2016=1,409; 2015=1,322; 2014=1,344; 2013=1,330; 2012=1,258; 2011=1,201; 2010=1,198; 2009=1,124; 2008=1,150; 2007=1,084; 2006 (not asked); 2005=1,324; 2004=1,386; 2000=1,020 and 1999=1,379)

Note: From 2012-2014 respondents were asked 'do you believe the global economy will improve, stay the same or decline over the next 12 months?'

Q: Do you believe global economic growth will improve, stay the same, or decline over the next 12 months?

Q: How confident are you about your company's prospects for revenue growth over the next 12 months and next 3 years?

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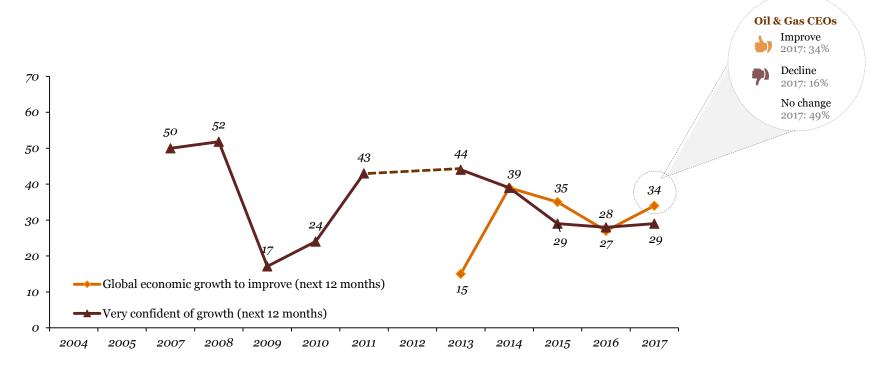






Confidence is improving in the oil and gas sector

Oil & Gas CEO short-term confidence about their company's growth has risen compared to last year and on a par with 2014 and 2015. They are less confident than in other sectors about their company growth, but are more optimistic about overall economic growth.



Base: O&G respondents (2017=83; 2016=71; 2015=72; 2014=59; 2013=48; 2012=43; 2011=46; 2010=34; 2009=35; 2008=1,150; 2007=76)

Note: From 2012-2014 respondents were asked 'do you believe the global economy will improve, stay the same or decline over the next 12 months?'

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Q: Do you believe global economic growth will improve, stay the same, or decline over the next 12 months? (orange trend line)

Q: How confident are you about your company's prospects for revenue growth over the next 12 months? (red and dark red trend lines)

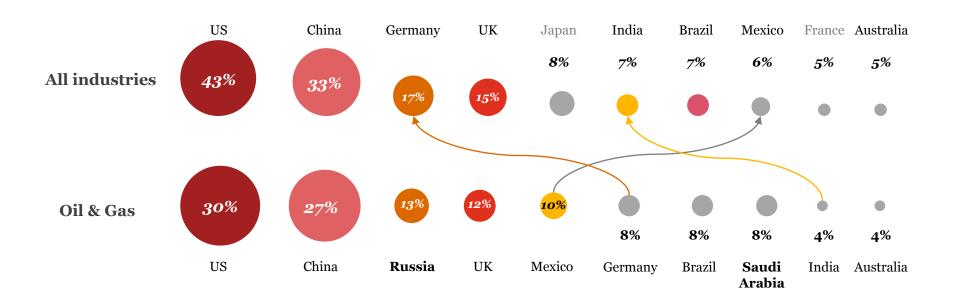








Oil & Gas CEOs have a somewhat different view of the world order



Bold-face countries were not ranked within the top 10 important countries across all industries, but were within the top 10 for Oil & Gas CEOs.

 $Source: PwC, 20th CEO Survey. \ Base: All \ respondents \ (2017=1,379); Oil \& Gas \ respondents \ (2017=83)$

Q: Which three countries, excluding the one in which you are based, do you consider most important for your organisation's overall growth prospects over the next 12 months?

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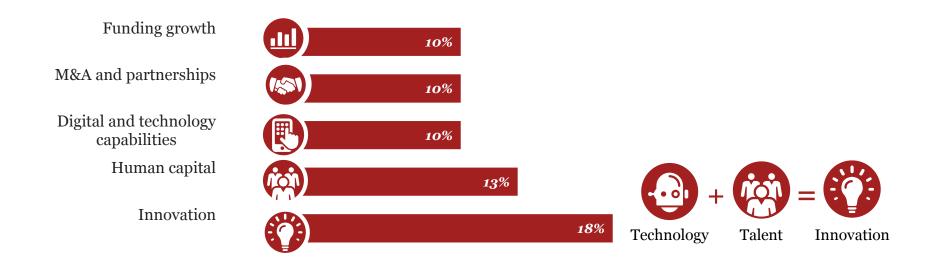






Making the most of opportunities to grow

Among Oil & Gas CEOs, 69% are focusing on organic growth over the next year and 18% most want to strengthen innovation in order to capitalise on new opportunities.



Q: Given the business environment you're in, which one of the following do you most want to strengthen in order to capitalise on new opportunities? 20th CEO Survey

20th CEO Survey









Tough questions to ask

- 1. How will you find fresh organic growth in the new divergent and low-growth global economy?
- 2. As the pattern of world trade alters and protectionism threatens, how are you preparing to compete while continuing to optimise your cost base?
- 3. In a more uncertain world, where will your increase your investment and where will you 'hunker down'? How will you measure the relative success of your ventures?
- 4. If innovation is key to your success, how much more do you need to invest in R&D to improve efficiencies, control costs, and ensure future success?
- 5. In an increasingly risky business environment, how can you factor both agility and resilience into your growth strategy?



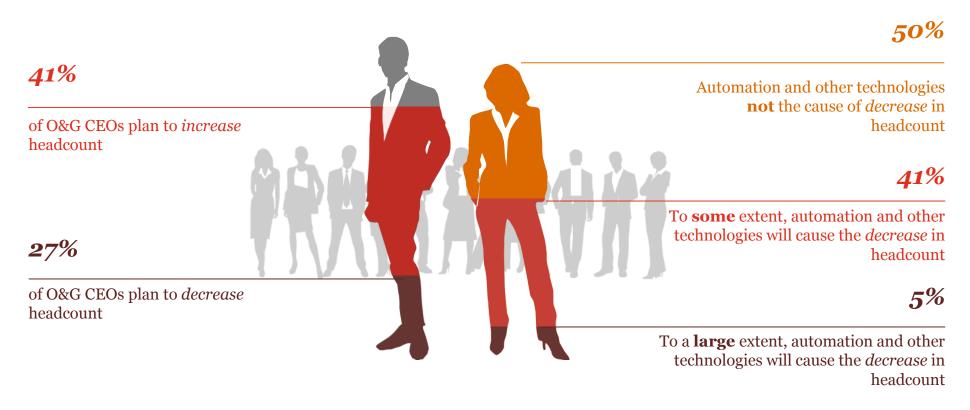






Managing man and machine

While technology is a key catalyst for innovation, 64% of Oil & Gas CEOs are worried about key skills shortages. And while 52% of all CEOs interviewed indicated they intend to increase headcount this year, less than half (41%) of Oil & Gas CEOs plan to do so. Will automation and other technologies replace oil and gas workers? Half of the CEOs said not at all.



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Q: Do you expect headcount at your company to increase, decrease or stay the same over the next 12 months?

Q: To what extent will the decrease in headcount be the result of automation and other technologies?

Q: How confident are you about your company's prospects for revenue growth over the next 12 months?



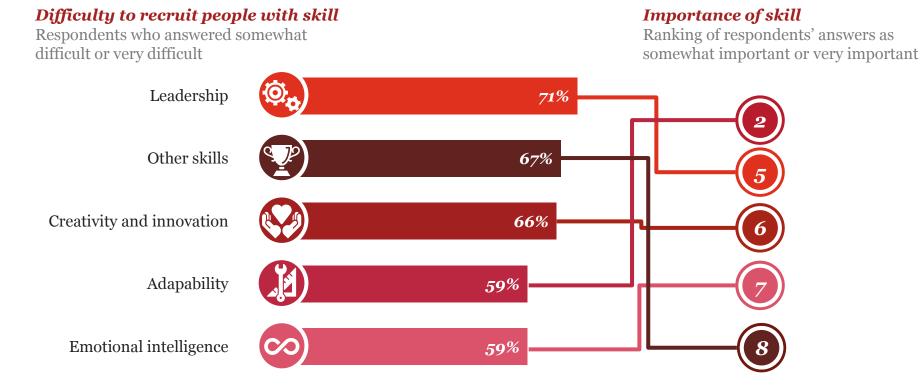






Leadership is lacking

The most difficult skill to find in the oil and gas sector is leadership, according to 71% of the CEOs interviewed. It may not be as important of a skill as collaboration (99%), adaptability (96%) or problem solving (96%) to the overall organisation, but leadership (90%) is important, given the large technical and skilled workforce in the oil patch.



 $Q{:} How difficult, if at all, is it for your organisation to recruit people with these skills or characteristics?\\$

 $20^{\text{th}}\,\text{CEO}\,\text{Survey}$

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 $Q{:}\ In\ addition\ to\ technical\ business\ expertise,\ how\ important\ are\ the\ following\ skills\ to\ your\ organisation?$

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Tough questions to ask

- 1. What parts of your business model will benefit from further automation?
- 2. Is your HR function ready to adapt to managing man and machine? What's missing from its capabilities and how will you fix it fast?
- 3. How are you going to find the rarer skills like leadership, creativity and adaptability required for your company to innovate and build brand differentiation?
- 4. Have you considered how artificial intelligence and automation will help you create competitive advantage in your key markets?
- 5. Have you redesigned your business processes so that your employees are best placed to work seamlessly with automation to create new value?







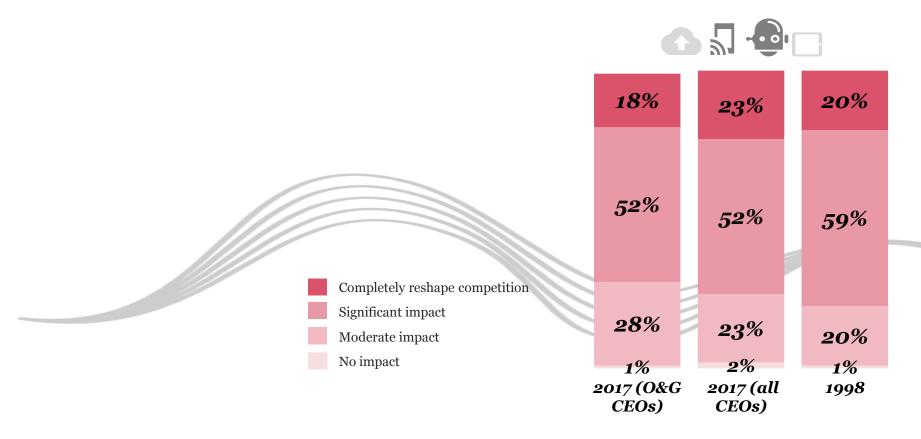






Waves of change

CEOs' predictions of the impact of technology were pretty accurate 20 years ago. Today, an even larger proportion expect their industries to be reshaped by it.



Source: PwC, 1st Annual Global CEO Survey and 20th CEO Survey. Base: All respondents (1998=377; 2017=1,379); Oil & Gas respondents (2017 = 83) Q: To what extent do you think technology will change competition in your industry over the next 5 years?

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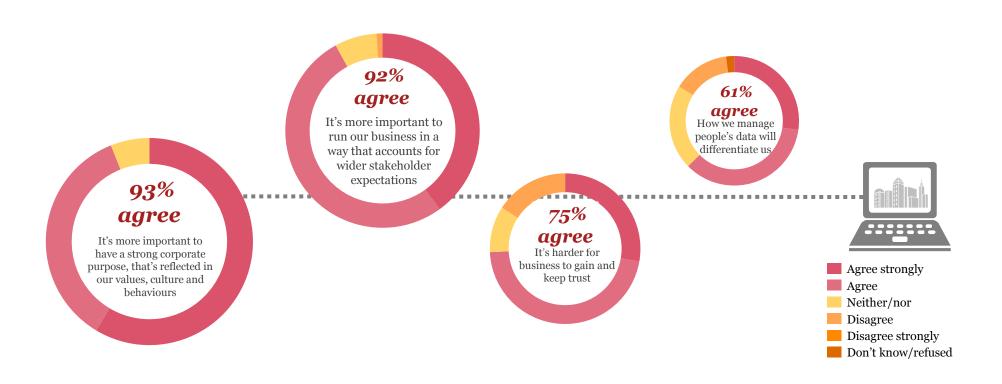






Keeping connectivity without losing trust

In 2003, 70% of CEOs thought corporate misdeeds posed little or no threat to growth. Today, 75% of Oil & Gas CEOs worry about lack of trust in business.



Note: The graphs may not add up to a 100% due to rounding errors

Q: In the context of an increasingly digitised world, to what extent do you agree or disagree with the following statements?

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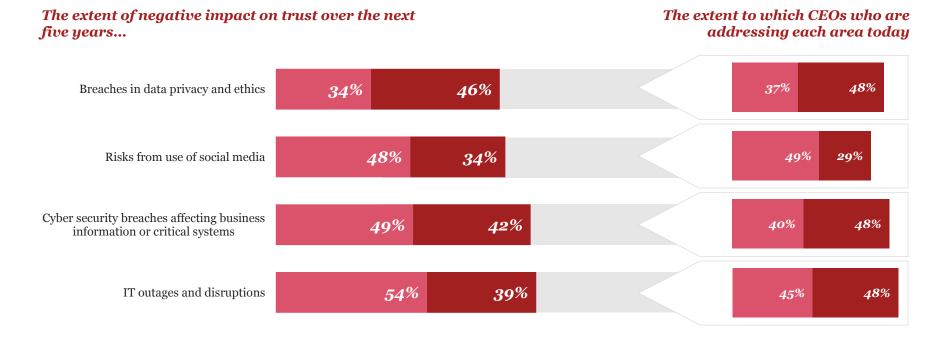






The dark side of connectivity

Many Oil & Gas CEOs recognise as much – IT outages and disruptions, cyber security breaches and social media risks are the top three concerns, and they are being addressed.





Q: To what extent do you think the following areas will impact negatively on stakeholder trust levels in your industry in the next five years? Q:To what extent is your organisation addressing the following areas today?

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Tough questions to ask

- 1. Does your CIO know the extent to which the technology you're investing in today will affect how your stakeholders trust you tomorrow?
- 2. What are you doing to protect customer and employee data from theft, loss or misuse and how robust are those strategies?
- 3. How can you build the right infrastructure for collecting, managing, governing and securing data?
- 4. As cybersecurity risks increase, have you got clear protocols in place for when systems go down and inconvenience your customers?
- 5. What controls and safeguards are you using to reduce your risk from employees using social media?



Making globalisation work for all





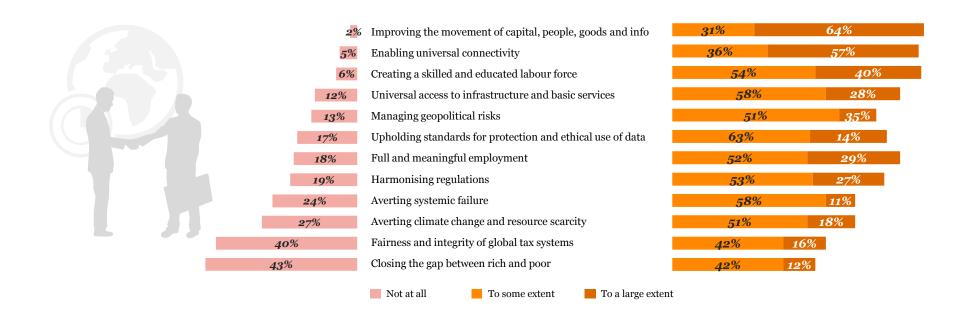






Oil & Gas CEOs agree that the shine has worn off globalisation

There is now a need for a strong corporate purpose, and CEOs also believe that collaboration with the government to tackle system change will be required.



Q: To what extent has globalisation helped with the following areas? 20th CEO Survey

__ ____









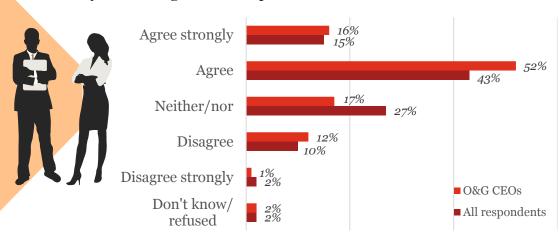
CEOs agree that it is harder now to balance the need to compete with local and national priorities

"In the context of globalising the business, I do think that the economic aspects will also convince politicians that we should go more for free trade. It is a huge opportunity for all of us. Interconnecting the world also on an economic basis." (CEO, Austria)

"In a global business such as ours, it's simply impossible to win every battle. The need to prioritise and focus on key areas of value creation has probably never been greater." (CEO, UK)

"I like the phrase: think global, act local" (CEO, US)

Instead, there is now a need for a strong corporate purpose, and CEOs also believe that collaboration with the government to tackle system change will be required.



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Q: How do you think CEOs can achieve this balance?

Q: To what extent do you agree or disagree that it is becoming harder for CEOs to balance competing in an open global marketplace with trends toward more closed national policies?

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Tough questions to ask

- 1. Have you assessed the impact current sentiment about globalisation will have on your organisation's ability to compete globally?
- 2. Are you making the most of your reporting to ensure all your stakeholders are aware of your initiatives to support workforce, communities and social initiatives?
- 3. Have you evaluated your global tax strategies recently to consider the impacts of public and government views on tax obligations to support public services?
- 4. How do your investments in innovation align to the important problems at the core of your purpose?
- 5. How can businesses and governments work together to help those who've been disenfranchised by globalisation?



Digital tools and resources



Looking for more data?



2

Pick a question. Select one of the four theme tabs and choose your question. 4

Explore by industry:

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Explore the data

Growth & competition

Do CEOs believe global economic growth will improve, stay the same or decline over the next 12 months?

How confident are CEOs about their company's prospects for revenue growth over the next 12 months?

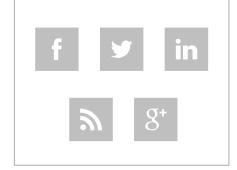
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Select up to nine industry and country filters to customise your data.



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Contacts and acknowledgement

Niloufar Molavi

Global Oil & Gas Leader PricewaterhouseCoopers LLP T: +1 713 356 6002

E: Niloufar.molavi@pwc.com

Kenny Hawsey

Global Oil & Gas Tax Leader PricewaterhouseCoopers LLP T: +1 713 356 5323

E: Kenny.hawsey@pwc.com

Reid Morrison

Global Oil & Gas Advisory Leader PricewaterhouseCoopers LLP T: +1 713 356 4132

E: Reid.morrison@pwc.com

Annette Morgan

Global Oil & Gas Marketing Director PricewaterhouseCoopers LLP T: +1713 356 6561

E: Annette.c.morgan@pwc.com

Our thanks to the following CEOs who participated in our face-to-face interviews and are quoted in this document.

Rainer Seele Chief Executive Officer OMV AG



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