

New technology can light the way, but do you know where you're going?

The better the question. The better the answer. The better the world works.

An in-depth view of the state of digitalization in oil and gas

Faced with the shift from scarcity to abundance, oil and gas companies are looking for ways to reimagine their business. Which tools will drive value creation? Is incremental change the right approach, or is it a missed opportunity? And what approach to technology

adoption will allow companies not just to remain part of the pack, but to accelerate ahead of the competition? To gain an in-depth view of the state of digitalization, we conducted a survey of 100 executives at oil and gas companies across the value chain. [View the survey here.](#)

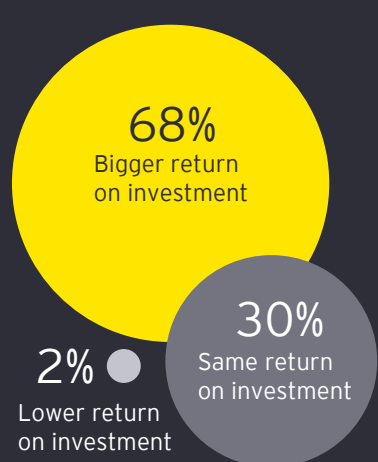
### How do you extract insight from a hydrocarbon?

A majority of respondents are eager to invest more in digital, with urgency to contain costs and deliver a bigger return on capital.

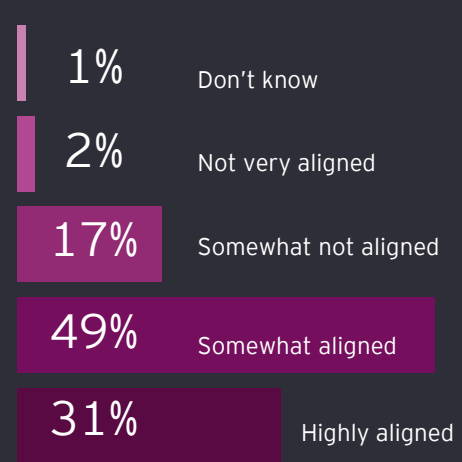
**89%**

Nearly 9 in 10 respondents expect their investment in digital tools to increase over the next two years, with a quarter foreseeing a significant increase.

What is the return threshold for digital investments?



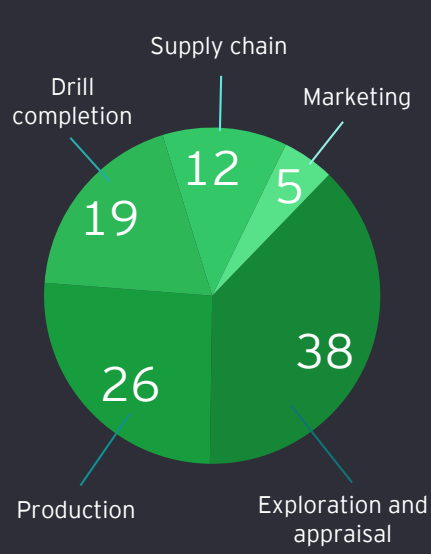
How aligned is your vision for the company's digital technology investment with the views of other senior management?



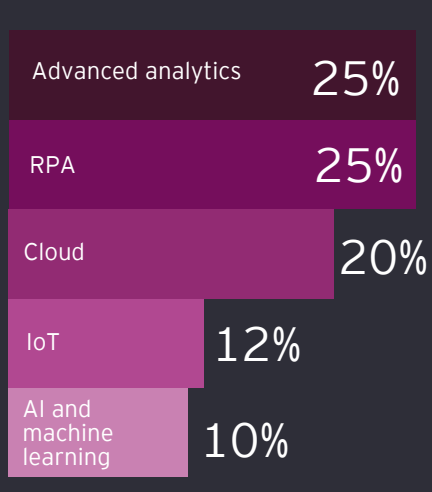
### Is technology your strategy or starting point?

See which digital technologies are expected to have the greatest positive impact on respondents' businesses.

Percentage of respondents' digital spend devoted to different parts of the upstream value chain



Which of the following technologies do you expect to have the greatest positive impact on your business over the coming five years?



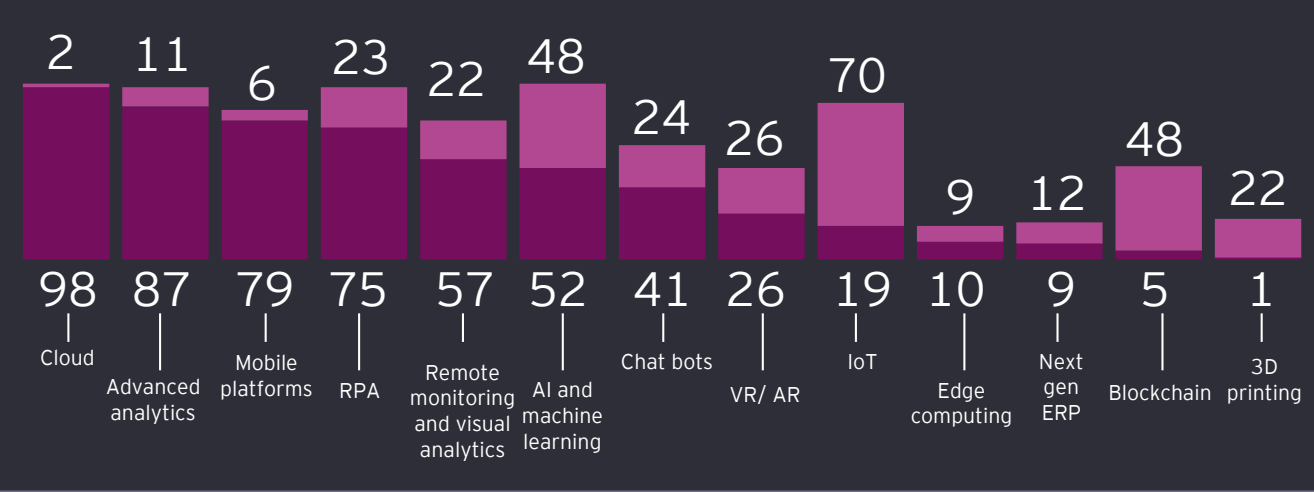
Which parts of your value chain do you plan to invest in digital technology?

(Data displayed as percentages)



Which of the following technologies is your company currently implementing? And which do you plan to implement in the next 18 months?

Legend: ■ Currently implementing ■ Planning to implement in the next 18 months (Data displayed as percentages)



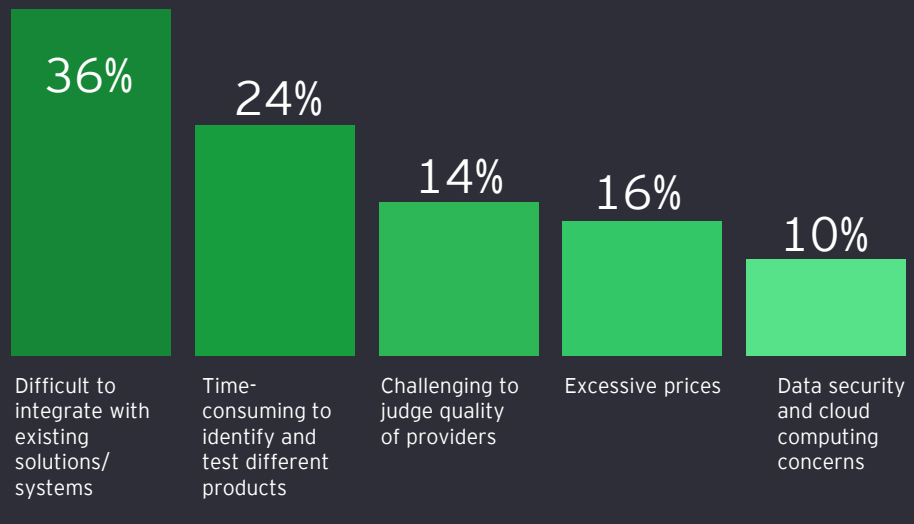
### Will projects be measured in bot-hours or man-hours?

Explore the methods respondents are using to access new technologies.

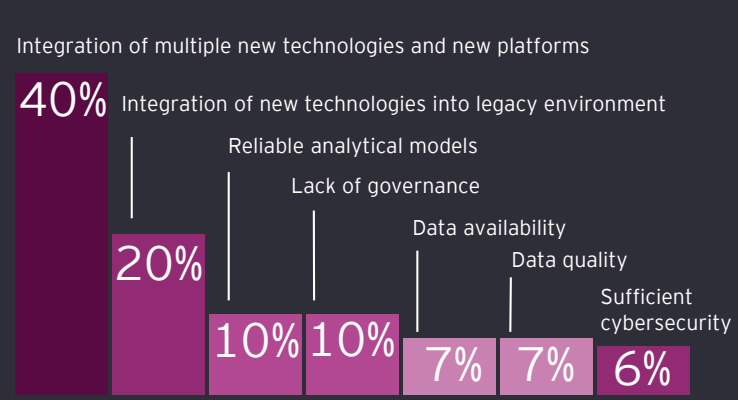
**50%**

say balancing internal development by using service providers and making acquisitions is a top challenge.

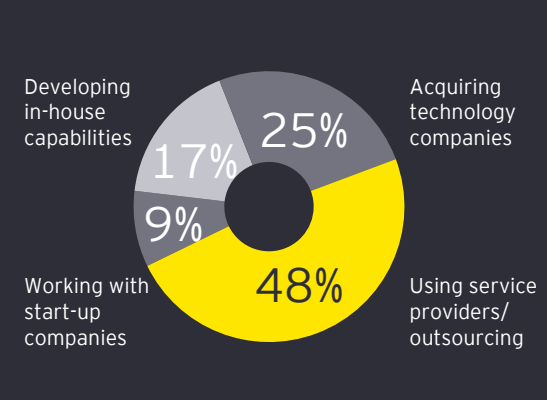
What is the biggest challenge or barrier to using service providers for digital technology applications?



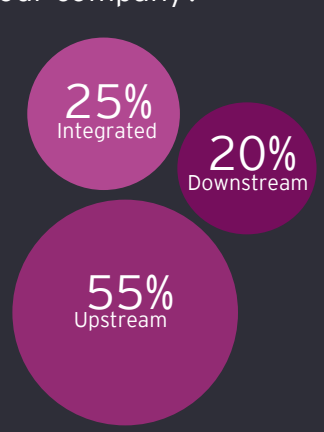
What is the greatest technical challenge your company faces in adopting new digital technologies?



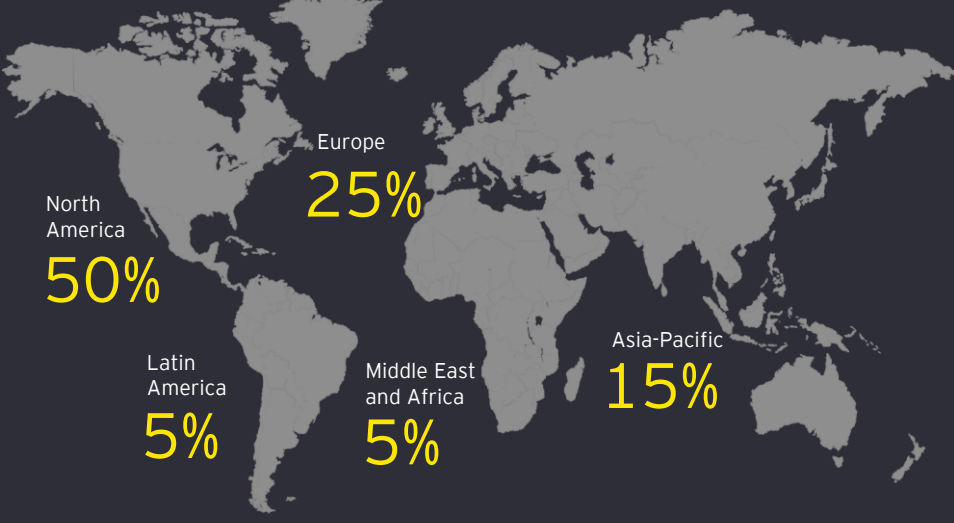
Percentage of respondents' digital technology spend devoted to different types of investment



Which best describes your company?



Regions



**Conclusion:** The oil and gas industry's ardent pursuit of efficiency is not about to recede in tandem with the strengthening of the commodity price climate. The focus on cost is hard-wired into corporate DNA after more than three years of low prices forced executives to take a scalpel to spending commitments. The efficiency agenda is shaping how the industry views technology investment and what potential application it should have.

Explore our detailed [survey results](#) now.

How EY's Global Oil & Gas Sector can help your business

The oil and gas sector is constantly changing. Increasingly uncertain energy policies, geopolitical complexities, cost management and climate change all present significant challenges. EY's Global Oil & Gas Sector supports a global network of more than 10,000 oil and gas professionals with extensive experience in providing assurance, tax, transaction and advisory services across the upstream, midstream, downstream and oil field subsectors. The Sector team works to anticipate market trends, execute the mobility of our global resources and articulate points of view on relevant sector issues. With our deep sector focus, we can help your organization drive down costs and compete more effectively.

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