

EY Oil and Gas Digital Transformation and the Workforce Survey

July 2020

Complete results

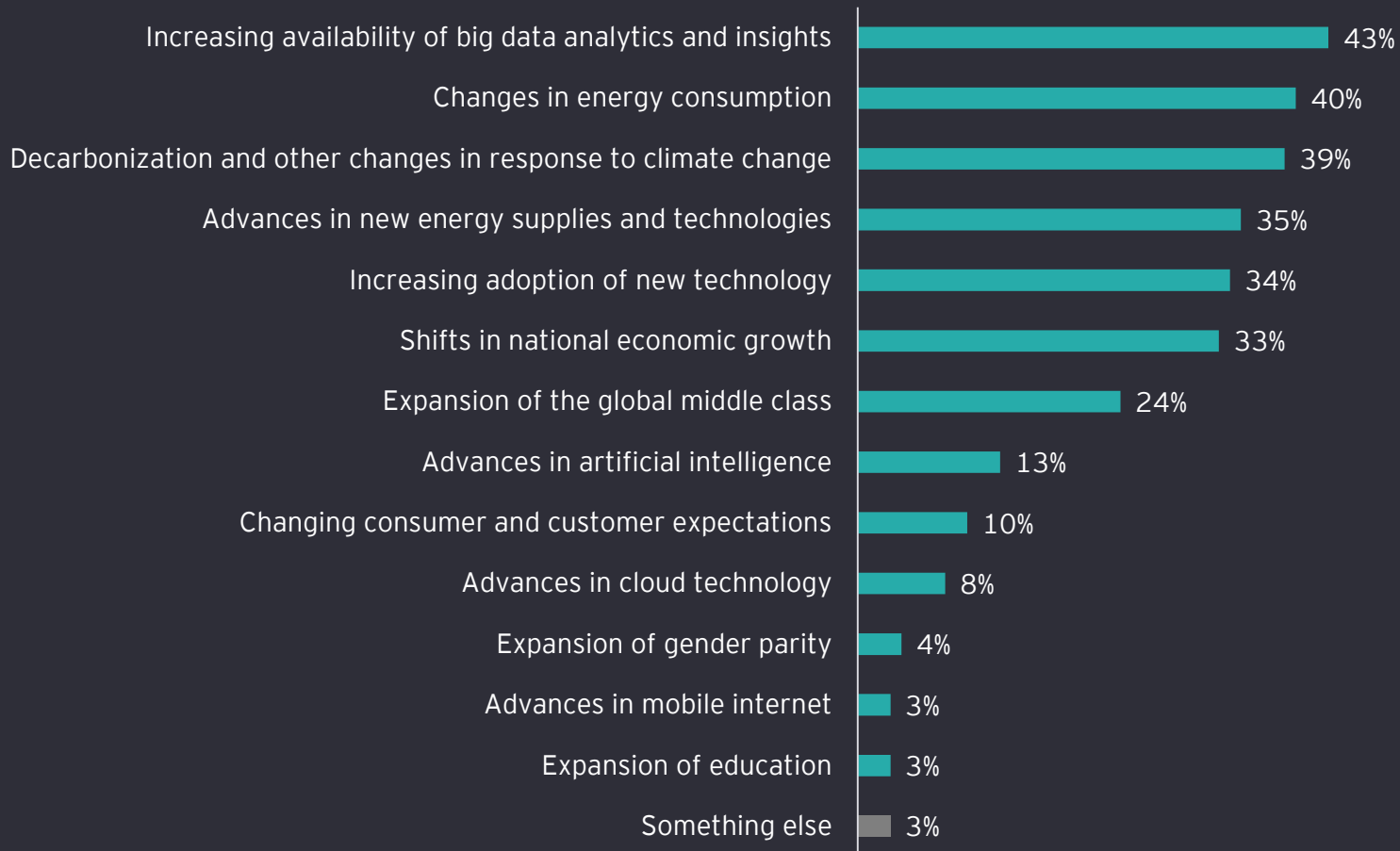
Detailed Survey Methodology

Methodology

- ▶ TRUE Global Intelligence, the in-house research practice of FleishmanHillard, fielded an online survey of 59 oil and gas executives.
- ▶ Respondents hold different functional roles across their organizations, including IT, HR, operations, strategy and digital departments.
- ▶ Respondents live and work across Africa, Asia-Pacific, Europe, Latin America, the Middle East and the United States.
- ▶ The survey was conducted between June 6 and July 5, 2020.

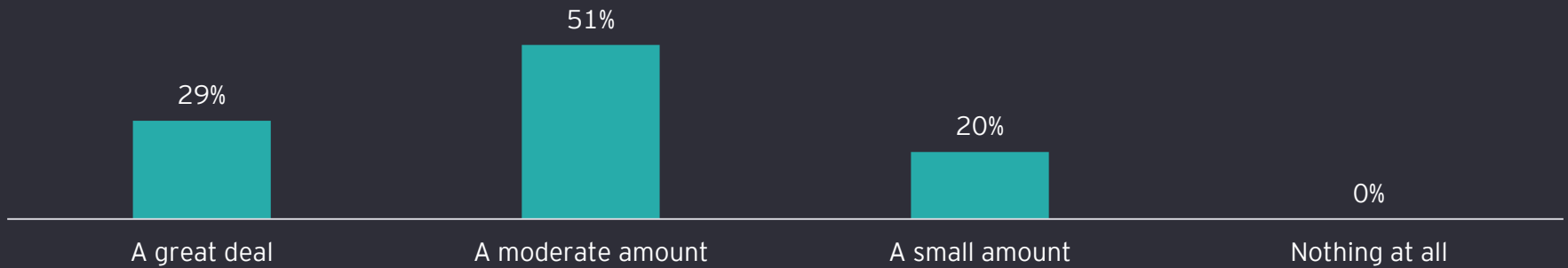
Q: Of the following trends, which three will have the most positive impact on your company's business growth in the next three years?

Trends with Largest Predicted Positive Impact



Q: How much does your company plan to invest in digital technologies to keep pace with these growth trends? Please think about this question relative to your company's budget and resources rather than an absolute amount.

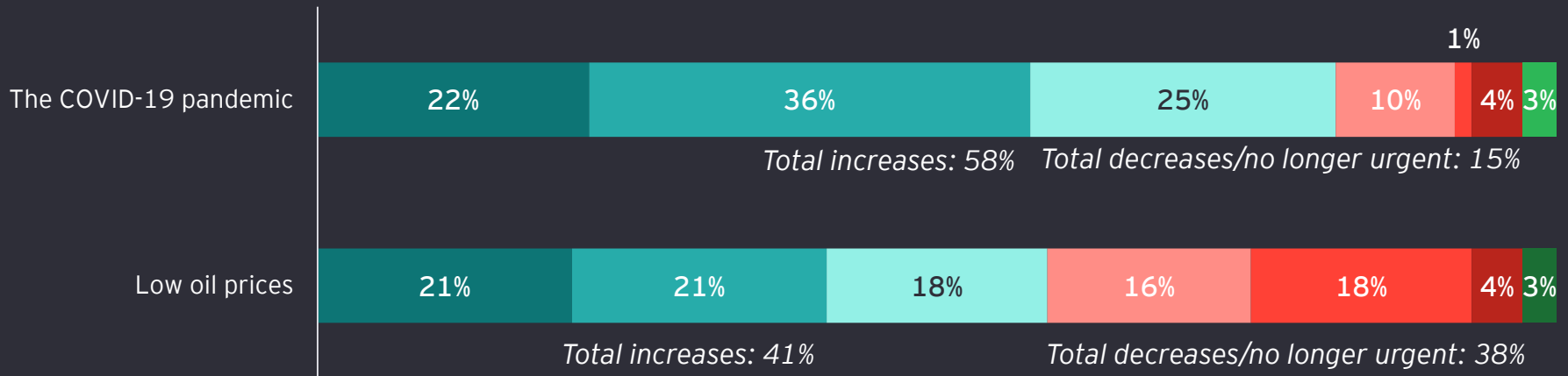
Planned investment in digital technologies



Q: How does each of the following change the urgency of investing in digital technology for your company?

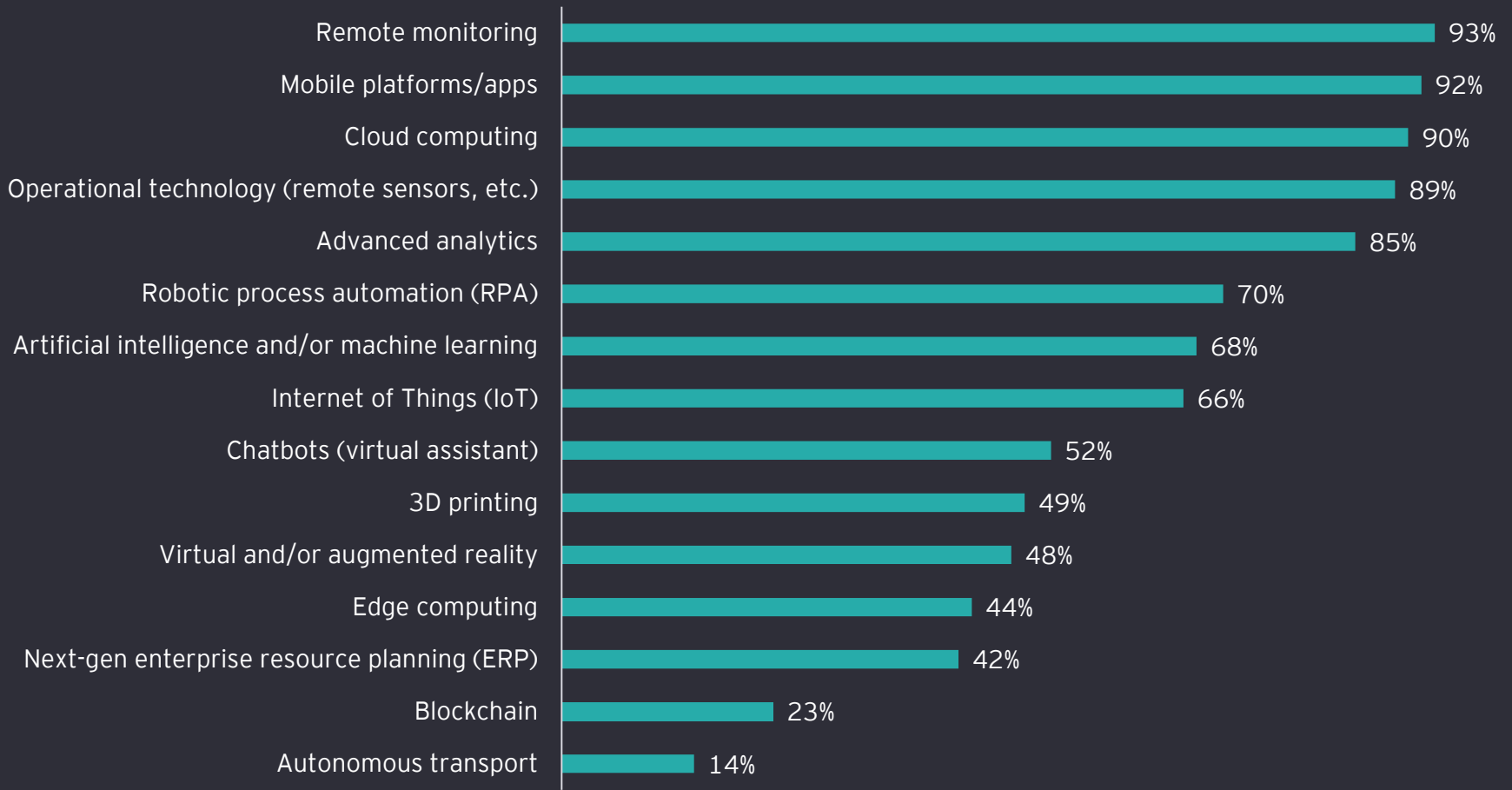
Changes in urgency for digital investments

- Increases it significantly
- Increases it somewhat
- Doesn't change it
- Decreases it somewhat
- Decreases it significantly
- It is no longer urgent
- It is too soon to tell



Q: Please indicate which of the following technologies your company is currently using.

Current technology use

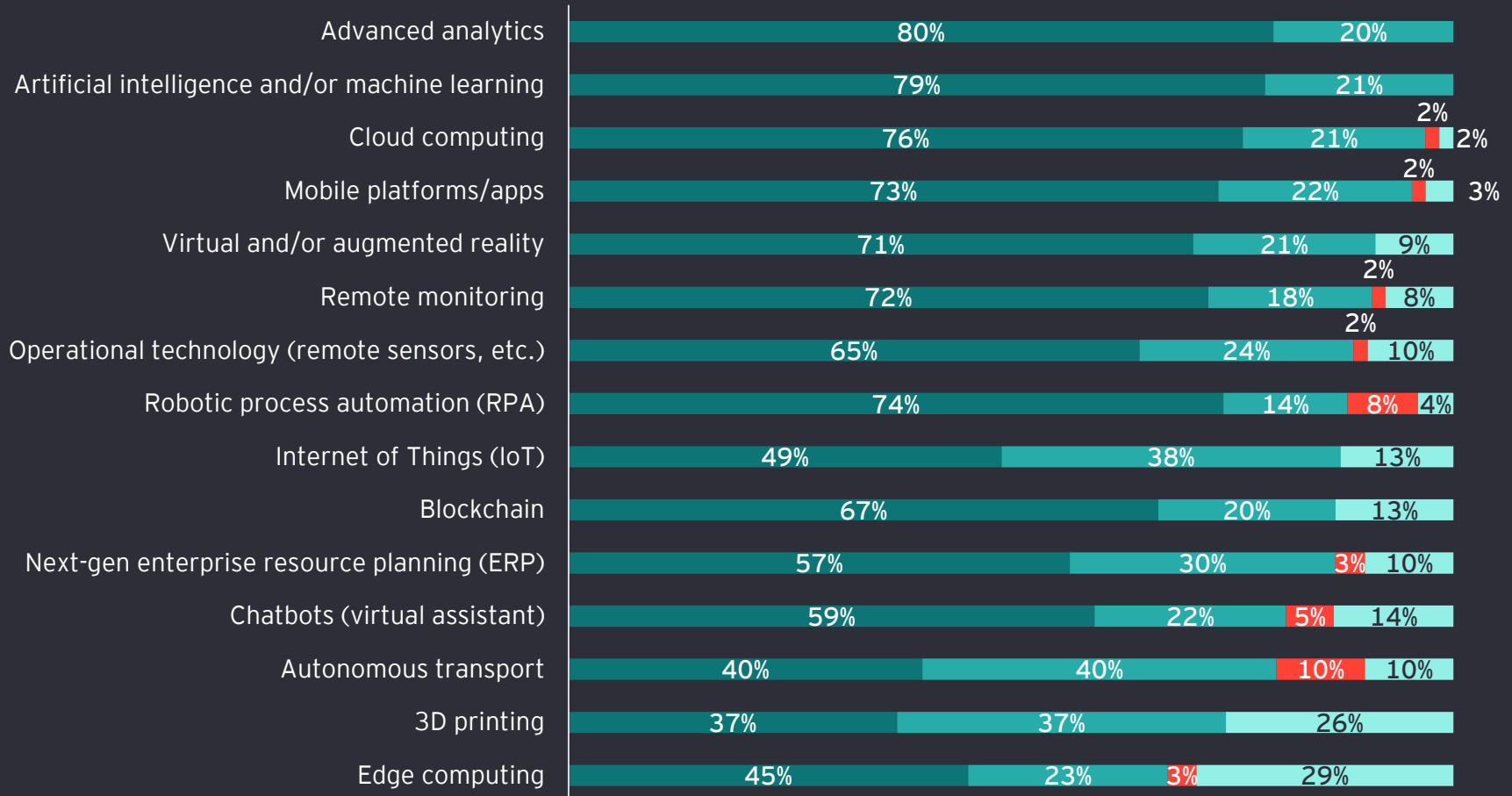


Q: This time, please indicate your company's plans for the technologies it is currently using.

Use case developments

Among current users of each technology

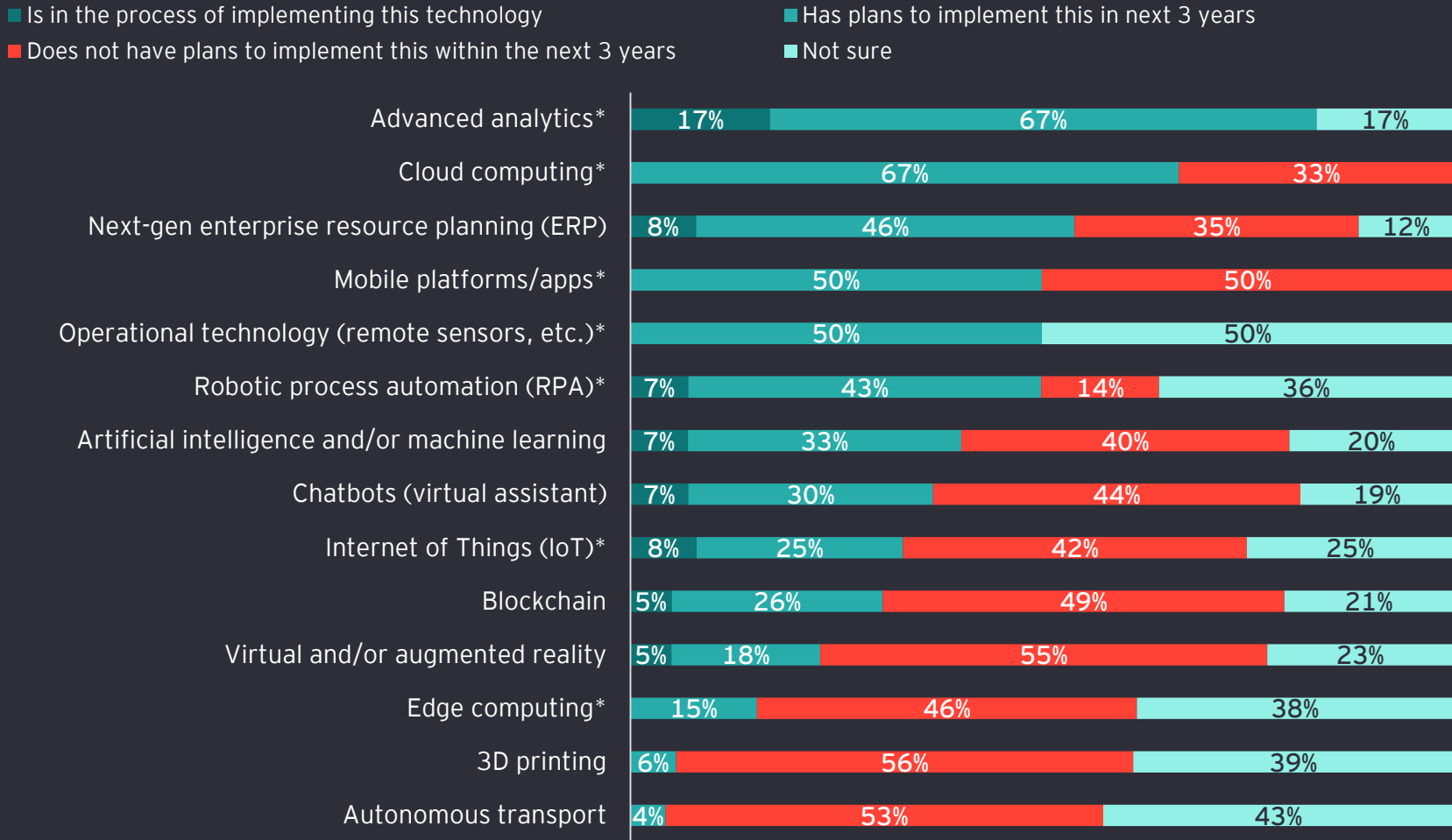
- Is in the process of developing improvements or new use cases
- Has plans to develop improvements or new use cases in the next 3 years
- Does not have plans to develop improvements or new use cases within the next 3 years
- Not sure



Q: This time, please indicate your company's plans for the technologies it is not currently using.

Use case developments

Among those not currently using each technology



*Technologies with sample sizes fewer than 15 respondents who are not currently using each technology. Directional findings only.

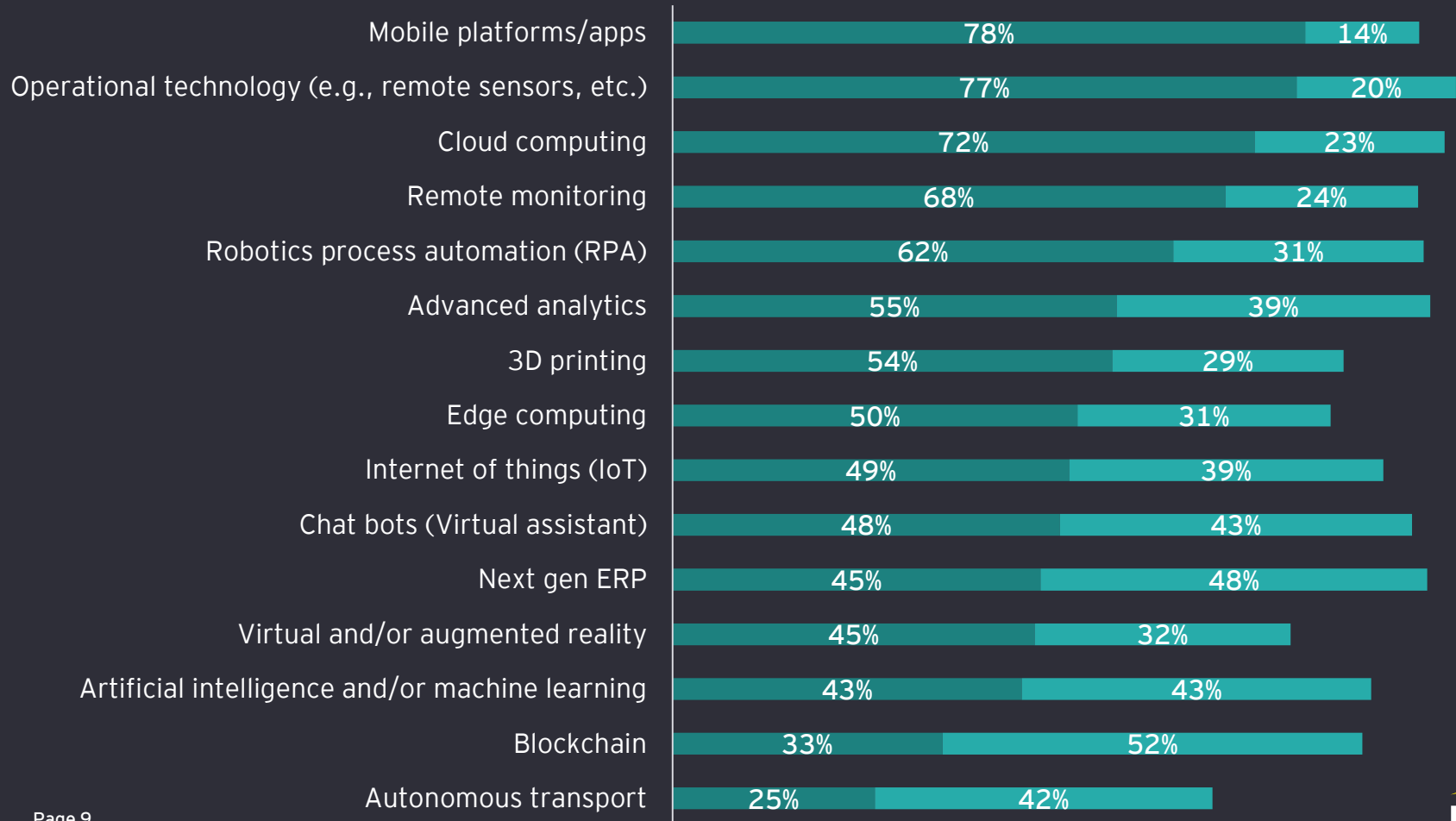
Remote monitoring not included in graph as zero respondents indicated they are not currently using it, though some respondents were unsure of their company's usage.

Q: You indicated your company is currently using these technologies or has plans to implement them in the future.

Skills & Digital Technologies

Among Those Currently Using or Planning to Use Each Technology

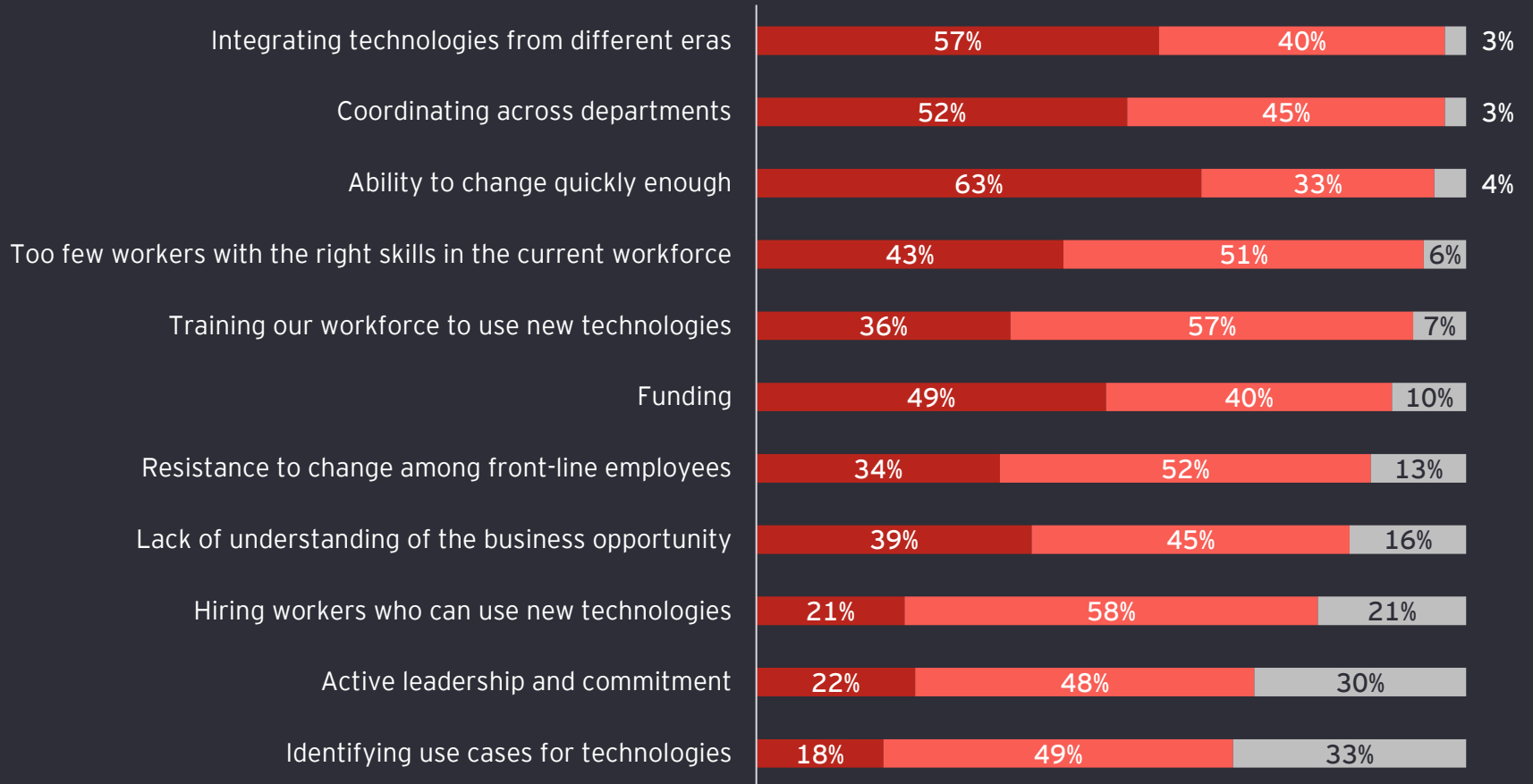
- Currently has skills necessary to realize the investment value
- Three years from now, company will have skills necessary to realize the investment value



Q: How much of a challenge to digital technology adoption is each of the following for your company?

Challenges to technology adoption

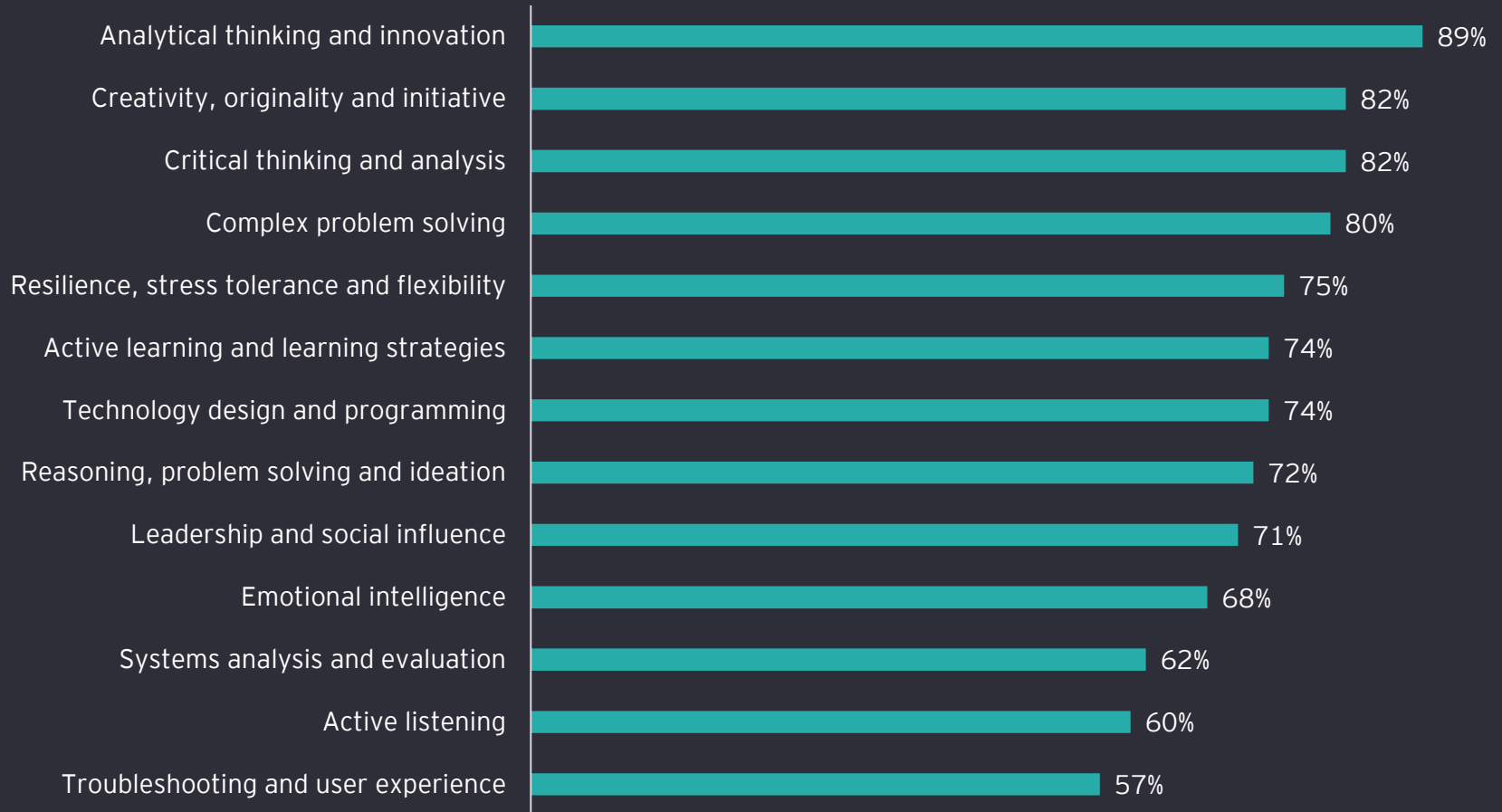
■ Major challenge ■ Minor challenge ■ Not a challenge



Q: Will your company's demand for each of the following skills increase or decrease over the next three years?

Demand for skills

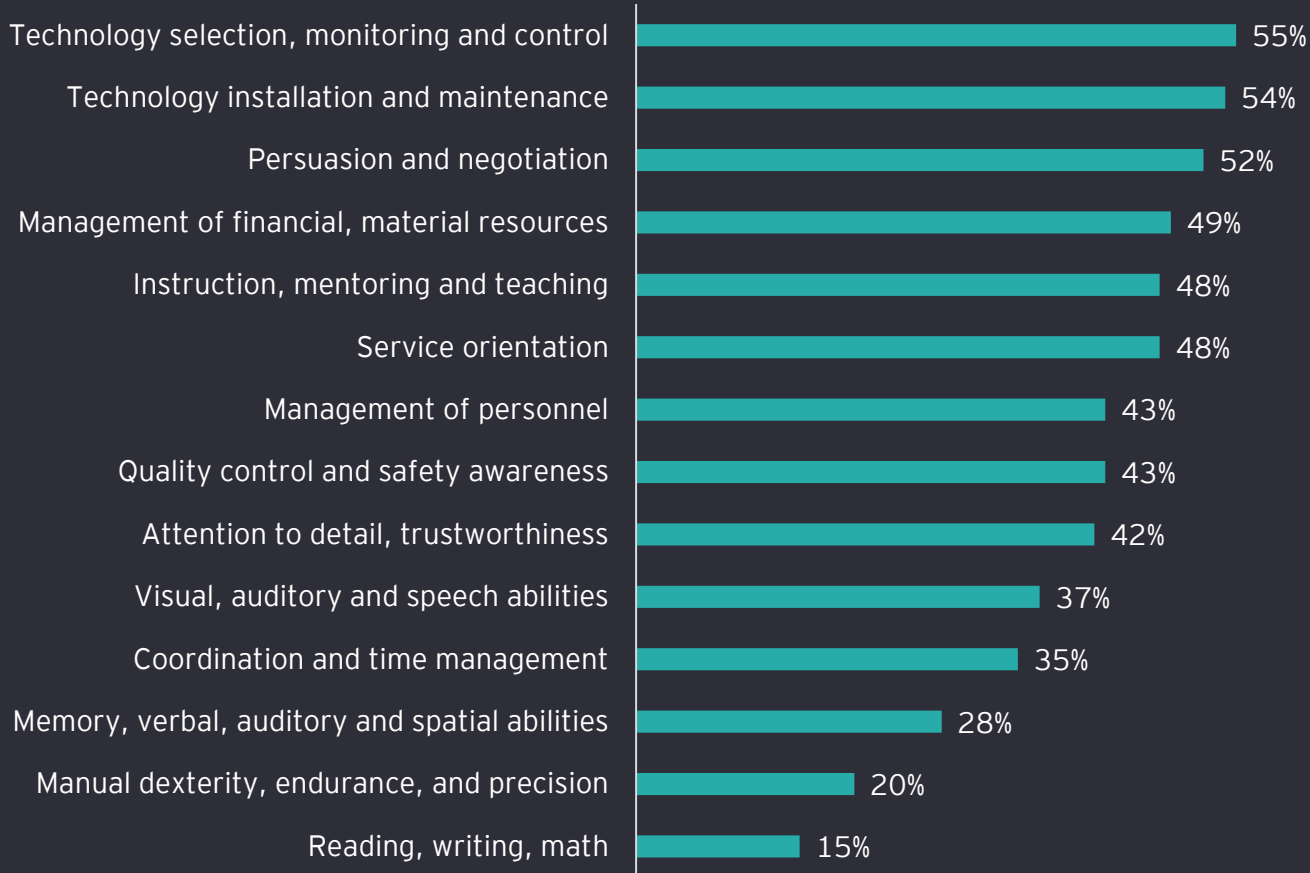
Showing percentage saying company's demand for skill will increase



Q: Will your company's demand for each of the following skills increase or decrease over the next three years? (Cont.)

Demand for skills (cont.)

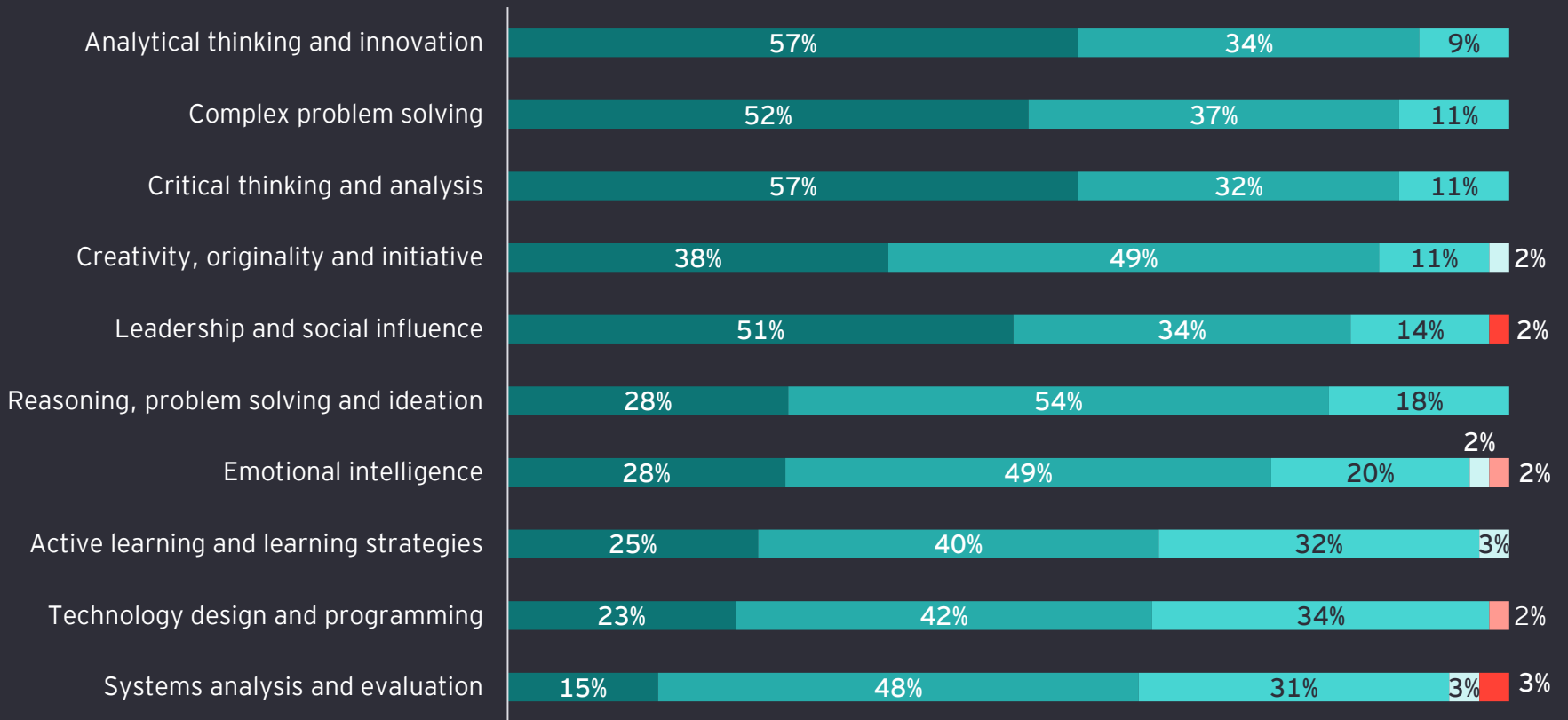
Showing percentage saying company's demand for skill will increase



Q: Organizations need a range of skills, and the importance of one skill does not imply other skills are less important. With this in mind, using this condensed list of skills, please indicate how important each skill is in meeting your company's strategic goals for the next three years.

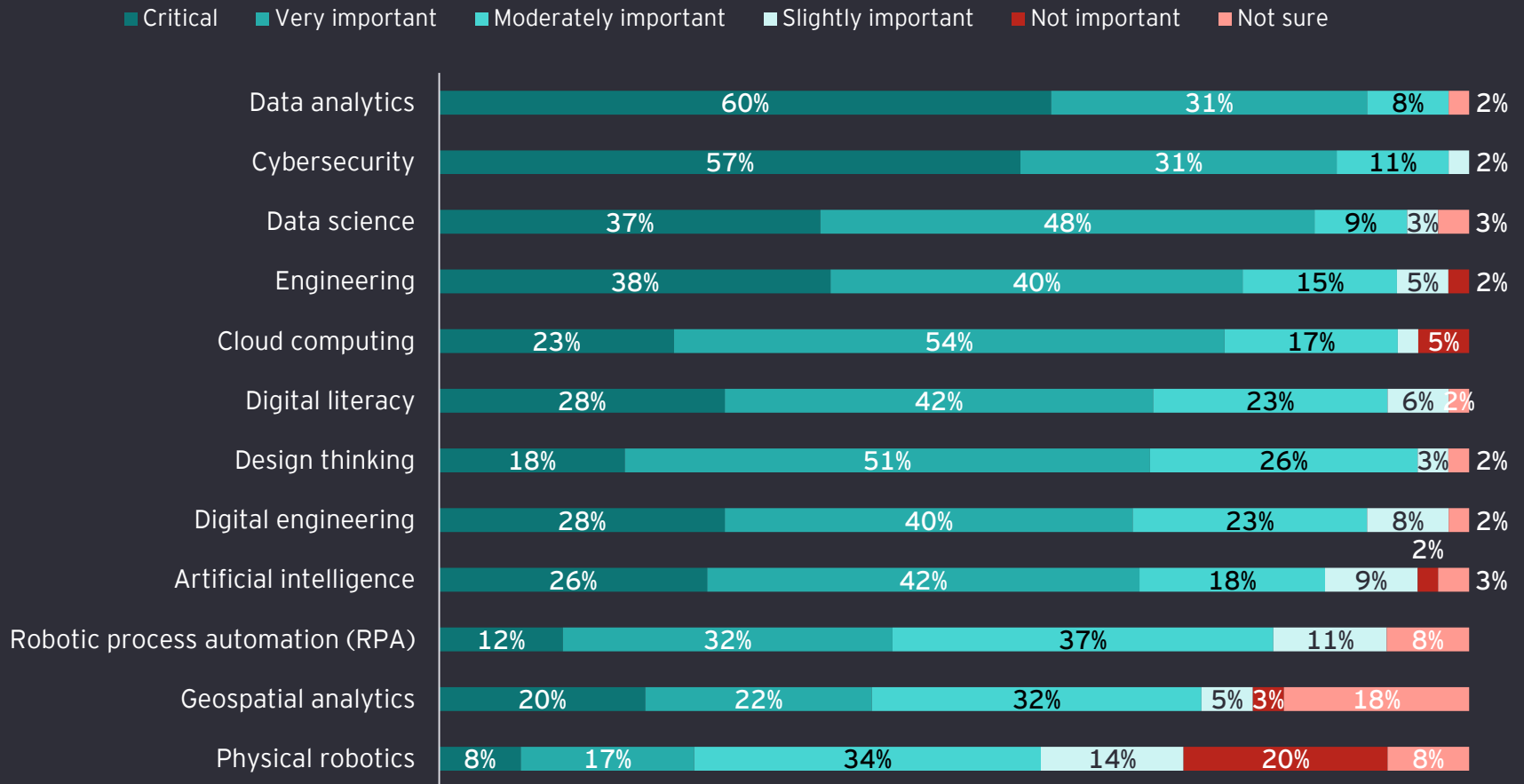
Skill importance

■ Critical
 ■ Very important
 ■ Moderately important
 ■ Slightly important
 ■ Not important
 ■ Not sure



Q: Thinking specifically about digital and other disruptive technologies, how important is each skill in meeting your company's strategic goals for the next three years?

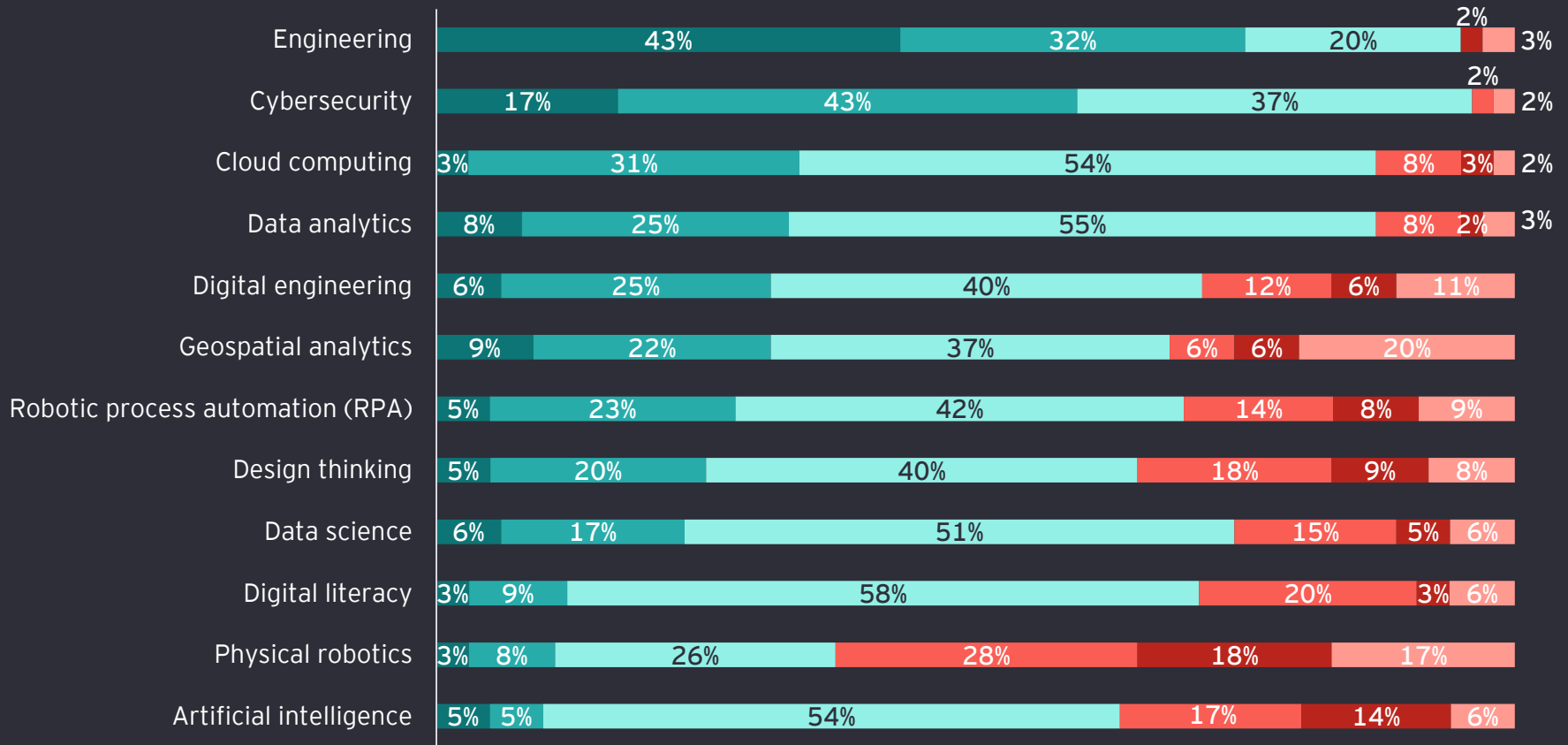
Digital skill importance



Q: How would you rate your organization's current level of maturity for each skill?

Digital skill maturity

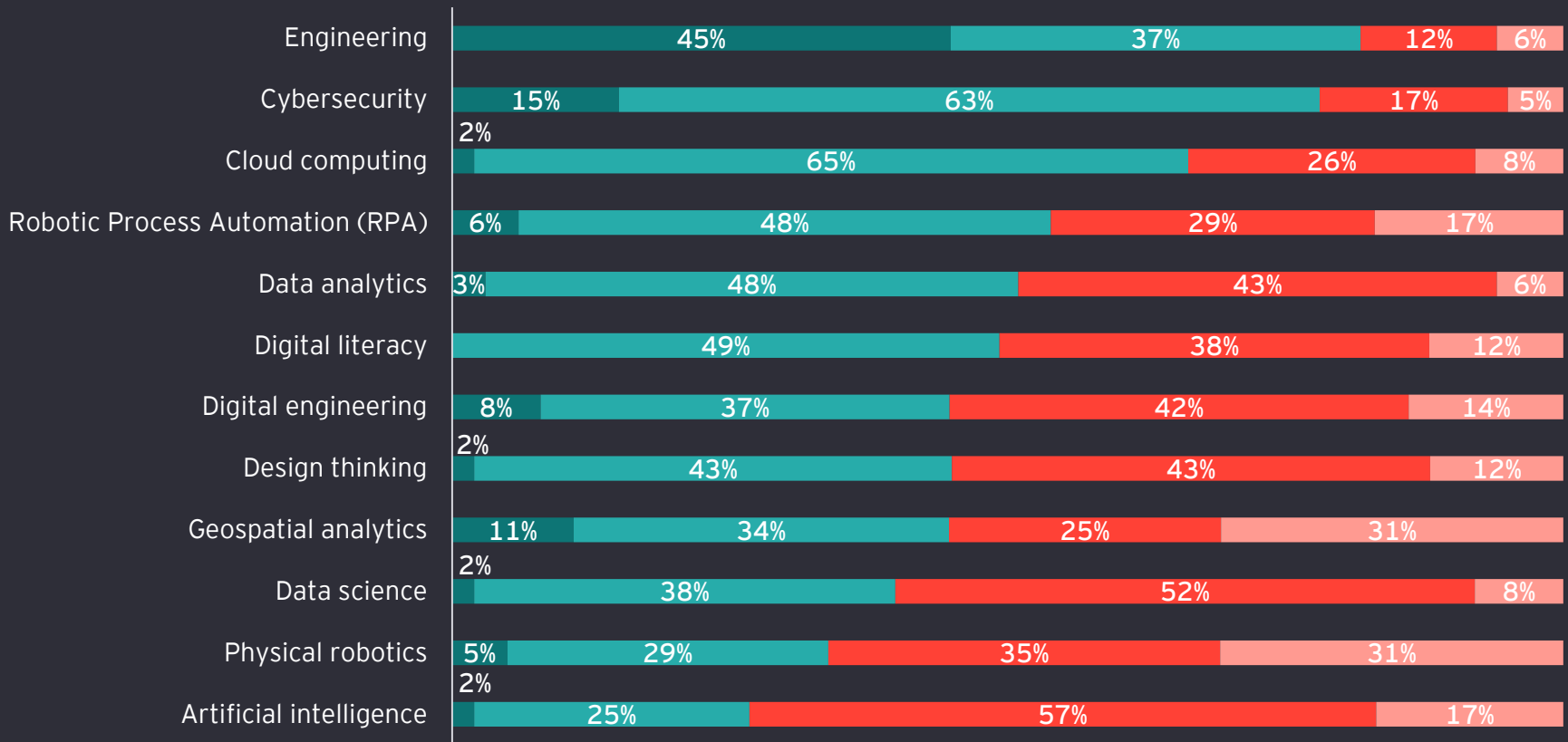
Expert Advanced Intermediate Novice Basic knowledge Not sure



Q: How would you rate the availability of each skill in your current workforce relative to your company's needs today? By "availability," we mean enough workers who collectively have the level of expertise required.

Digital Skill Availability

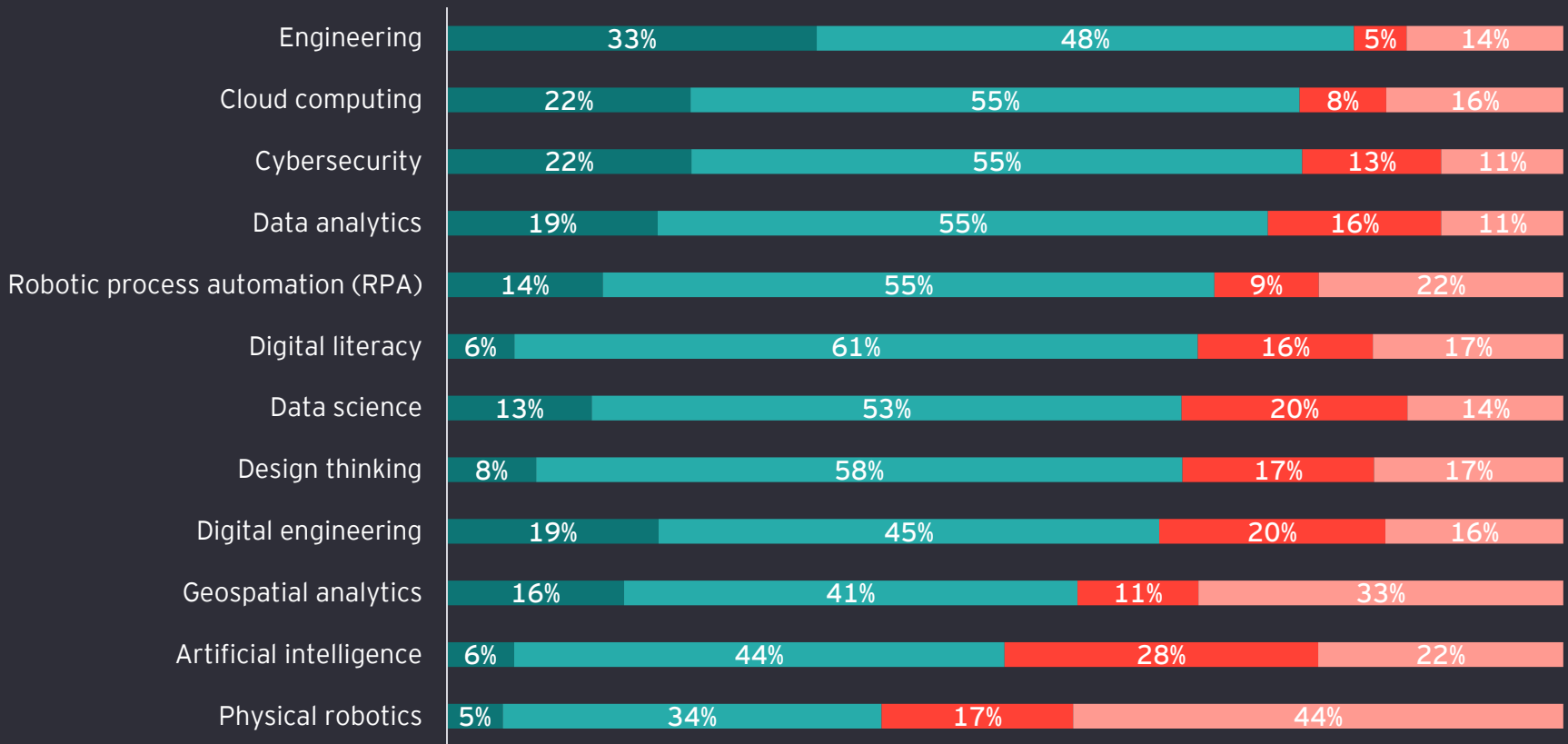
More than adequate Adequate Inadequate Not sure



Q: How would you rate your company's access to each skill in your workforce relative to your company's needs three years from now? By "access," we mean having the skill available within your workforce or the ability to access it in your local market through recruiting and contingent workers.

Digital skill access

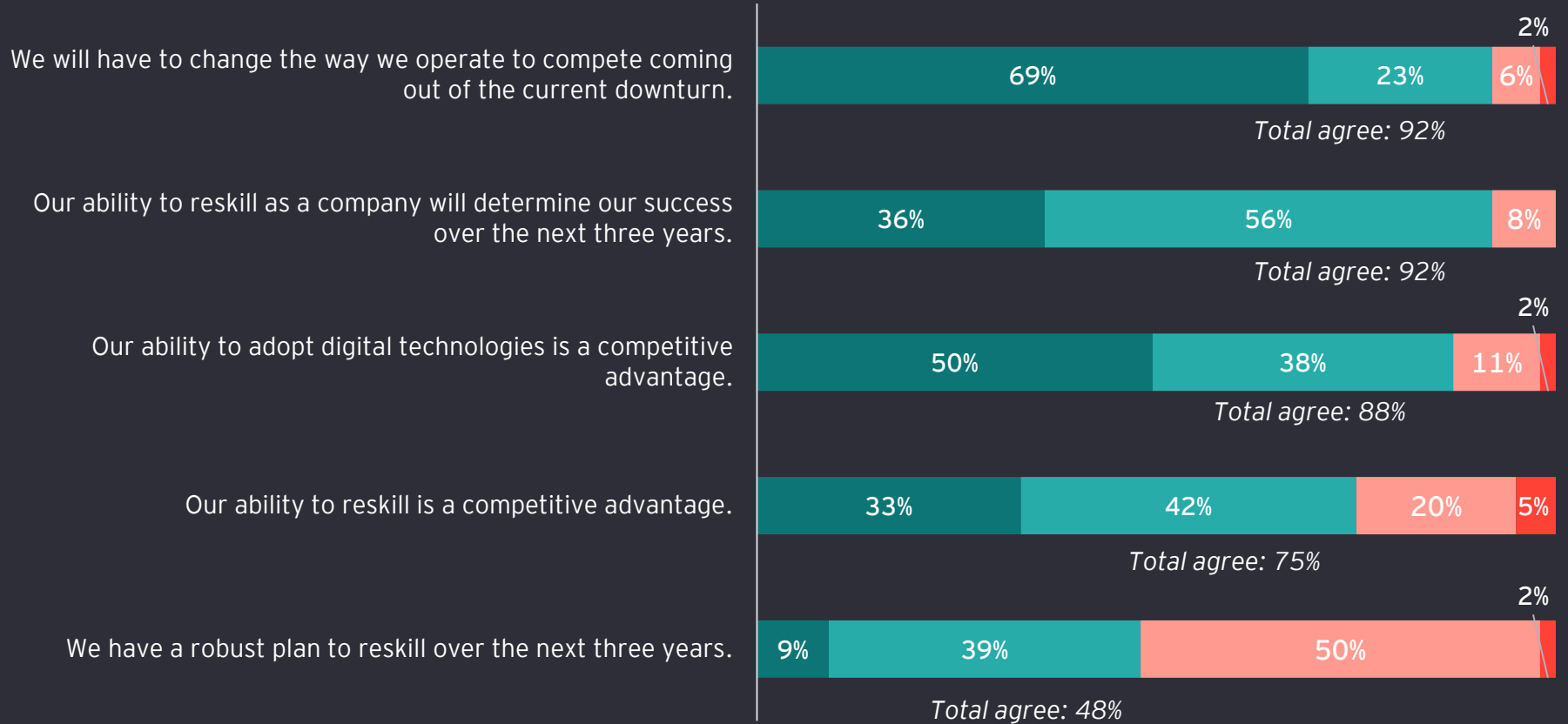
More than adequate Adequate Inadequate Not sure



Q: Do you agree or disagree with the following statements?

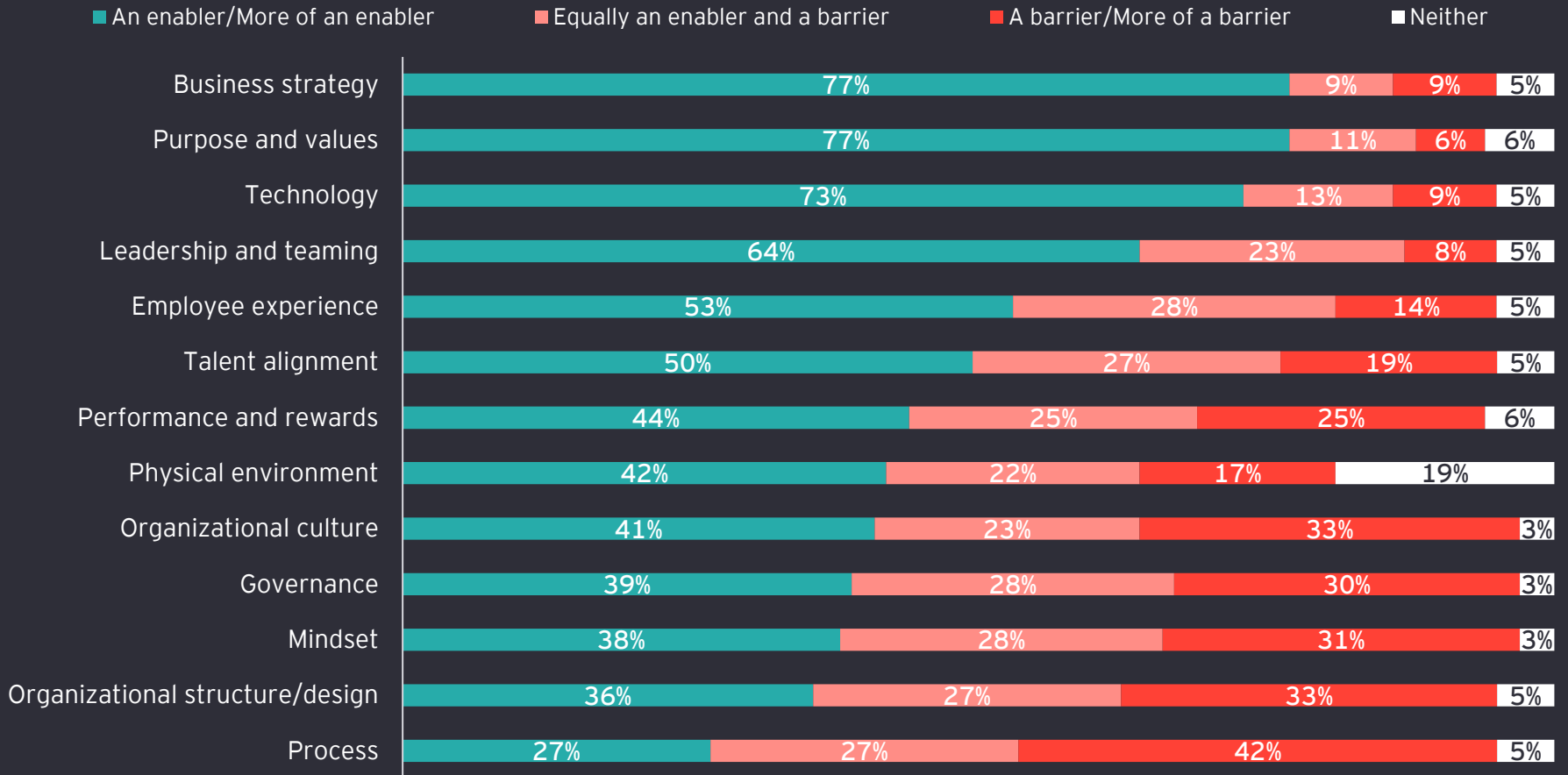
Ability to reskill

■ Strongly agree ■ Somewhat agree ■ Somewhat disagree ■ Strongly disagree



Q: Thinking about your company, would you describe each of the following as a barrier or an enabler to developing the skills needed within your company?

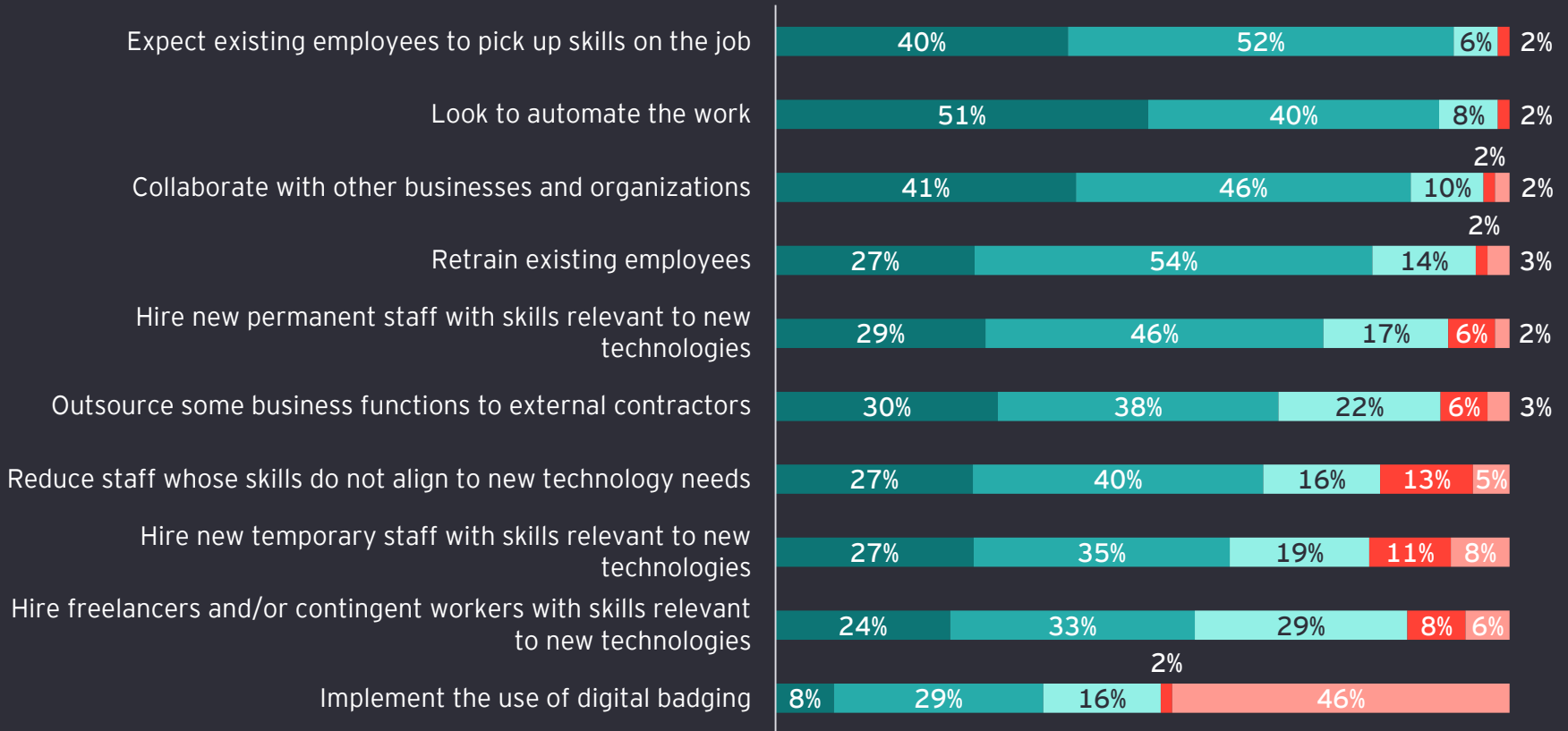
Enablers and Barriers of Skills Development



Q: How likely is your organization to use each of the following strategies to address changing skills needs over the next three years?

Strategies to address skill needs

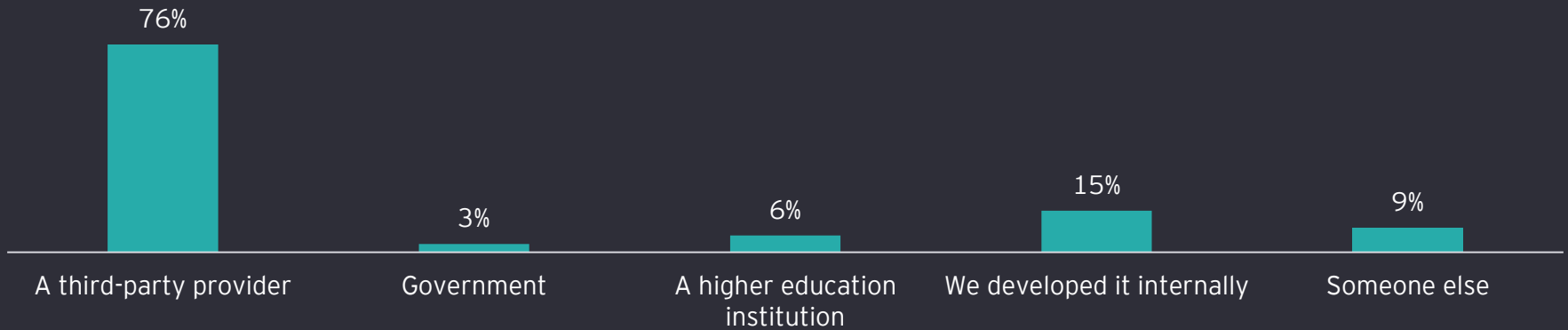
■ Currently doing this
 ■ Will do or likely to do
 ■ May or may not do this
 ■ Unlikely or will not do
 ■ Not sure



Q: Who are you collaborating with/most likely to collaborate with to implement digital badging?

Digital badging collaborators

Among those who may use, are likely to use, or are using digital badging

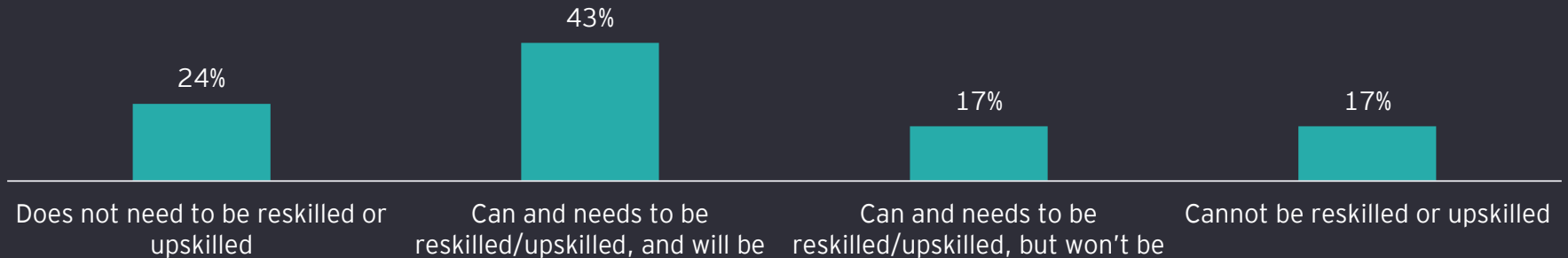


Q: Thinking about any workforce, there is a portion that:

- 1) Does not need to be reskilled or upskilled
- 2) Can and needs to be reskilled or upskilled, and will be
- 3) Can and needs to be reskilled or upskilled, but won't be due to some constraint
- 4) Cannot be reskilled or upskilled

In your estimation, what proportion of your workforce falls into each of these categories? Your answers should sum to 100%, and your best guess is OK.

Workforce reskilling: proportion of workforce*
Showing average



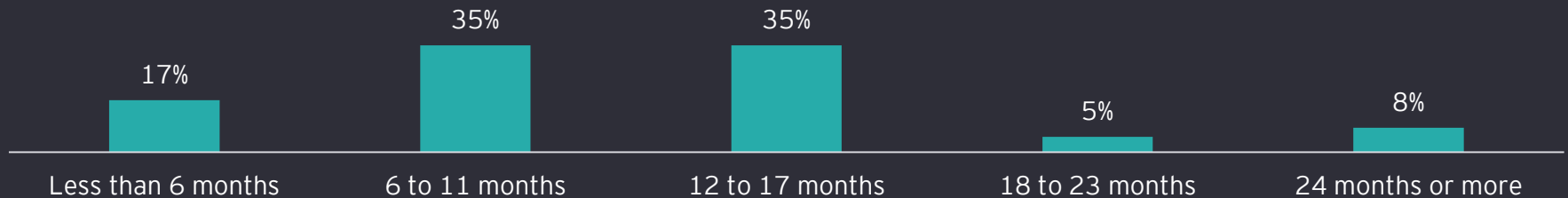
*Total sums to 101% due to rounding not shown

Q: Thinking about the average worker in your company who needs to be reskilled or upskilled, how long, on average, will it take to reskill them? Please answer in months. If it will take less than one month on average, please enter "0". Your best guess is okay.

9.8 months | Average time needed to reskill the average worker

Workforce reskilling: timeline

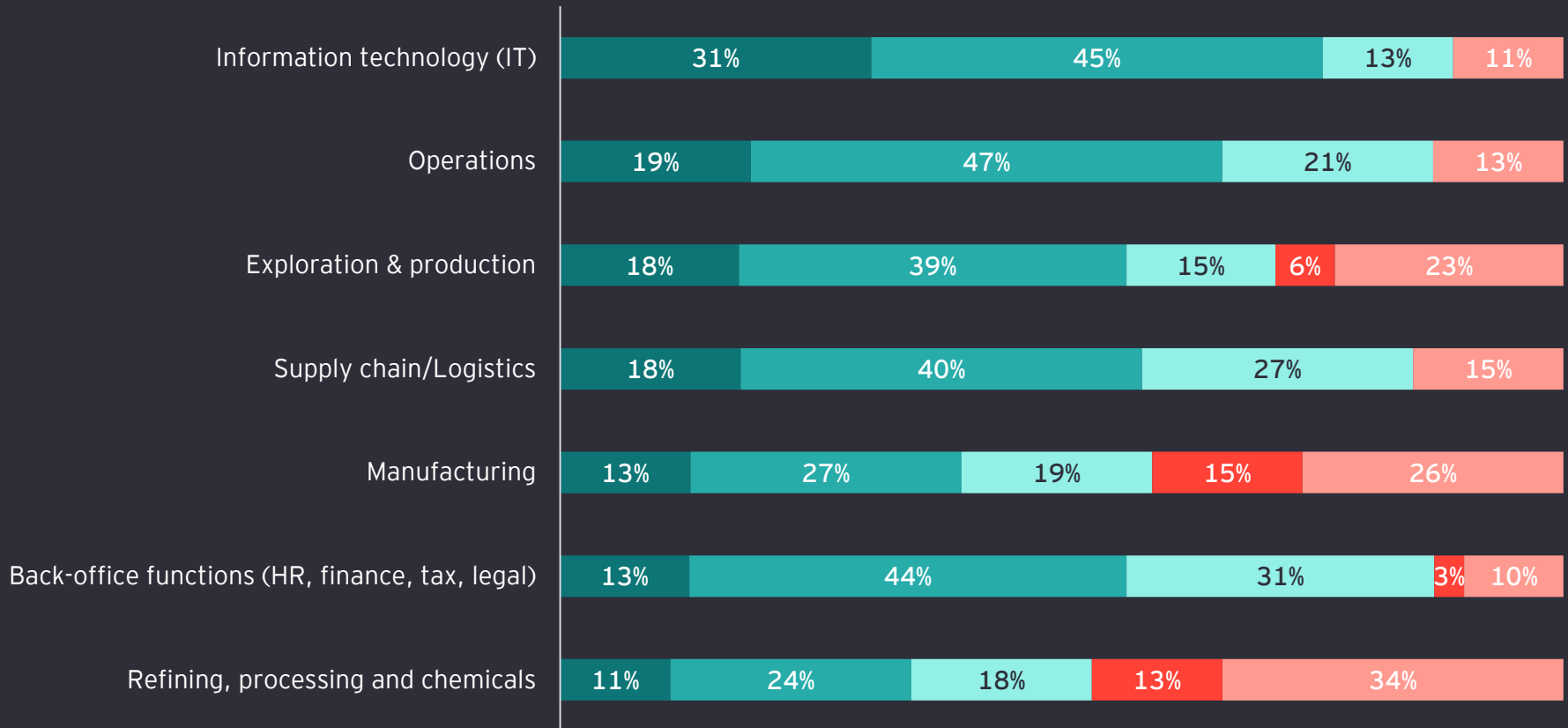
Among those with workers need to be, can be, and will be reskilled or upskilled



Q: How much will your company need to invest, relative to its budget and resources, in reskilling and recruitment in each of the following to meet its strategic goals over the next three years?

Needed investments in skills by functional area

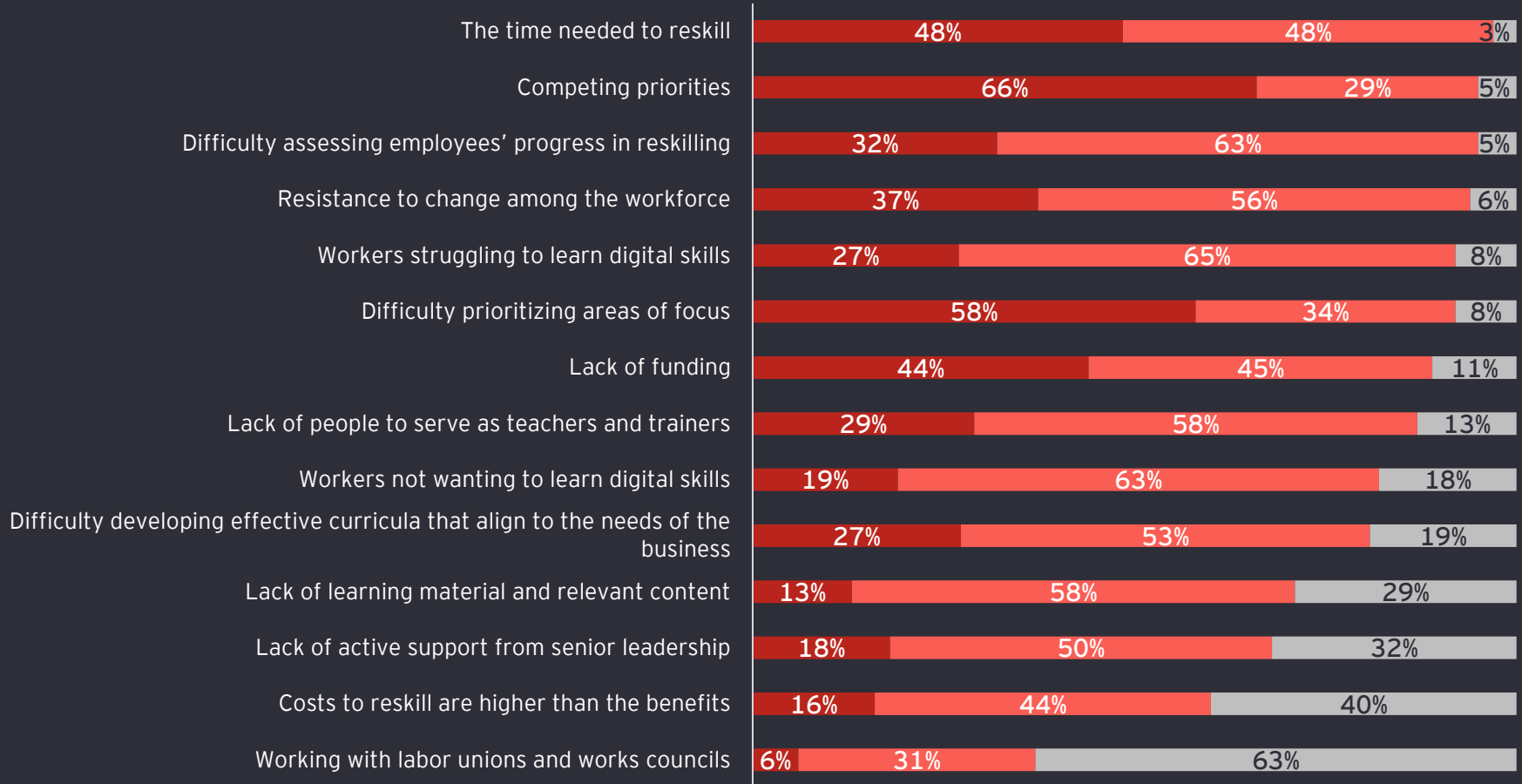
■ A great deal ■ A moderate amount ■ A small amount ■ Nothing at all ■ Not sure



Q: What challenges does your organization face related to worker reskilling?

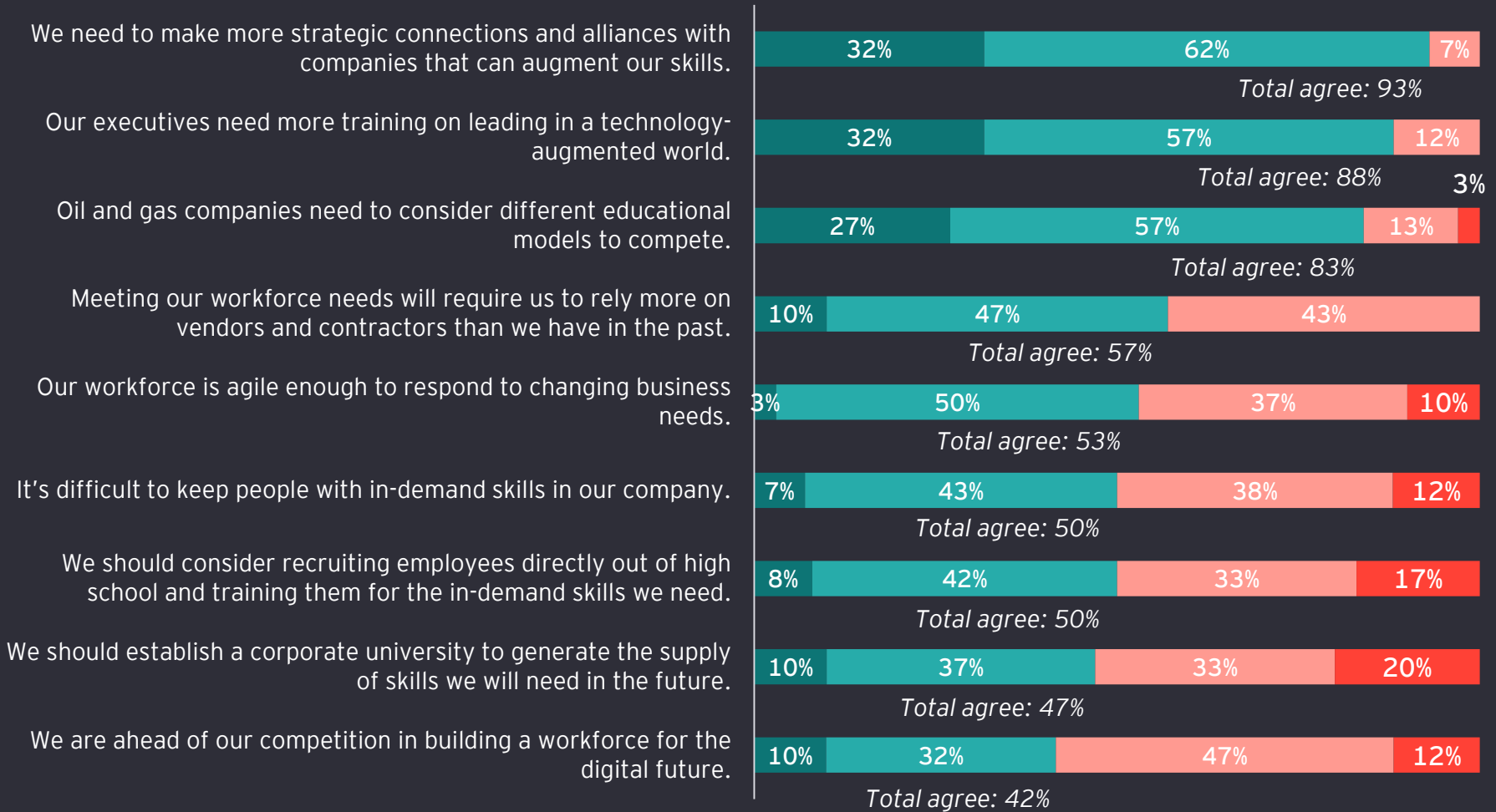
Challenges to reskilling

■ Major challenge ■ Minor challenge ■ Not a challenge

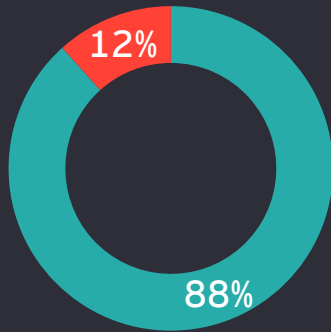


Q: Do you agree or disagree with the following statements?

■ Strongly agree
 ■ Somewhat agree
 ■ Somewhat disagree
 ■ Strongly disagree



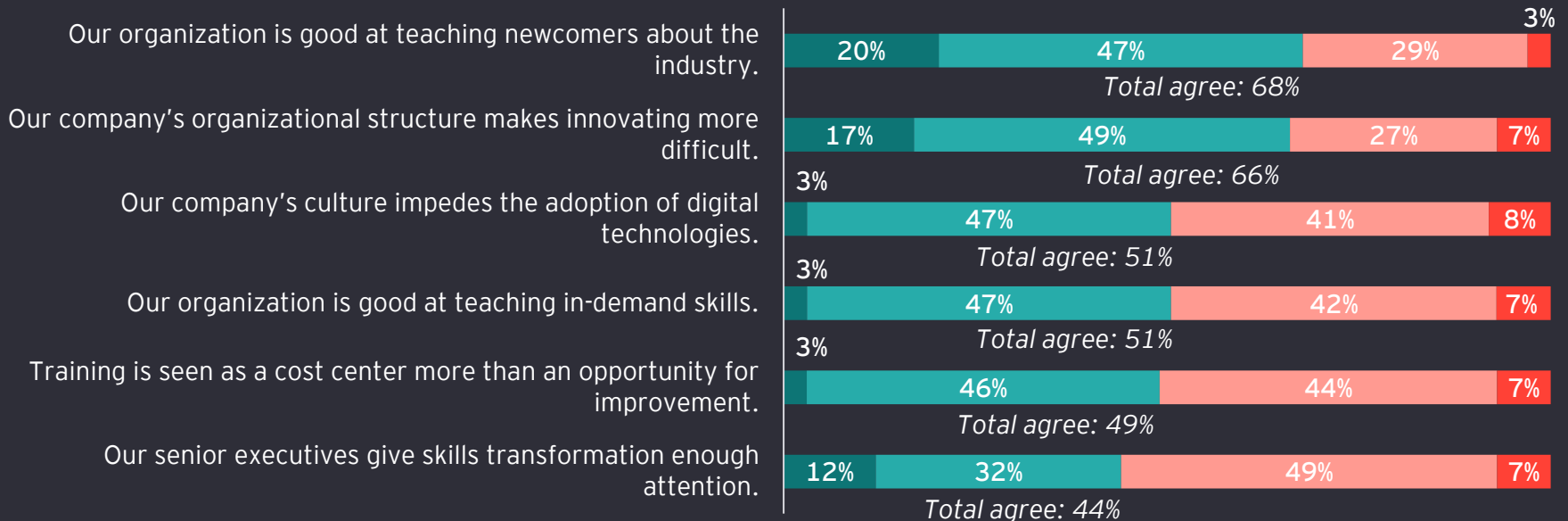
Q: Which of the following is closest to your view?



- We can teach new employees with the right skills what they need to know about the industry quickly enough to meet our needs.
- Experienced high-tech workers without industry-specific experience cannot learn what they need to know about the industry quickly enough to meet our needs.

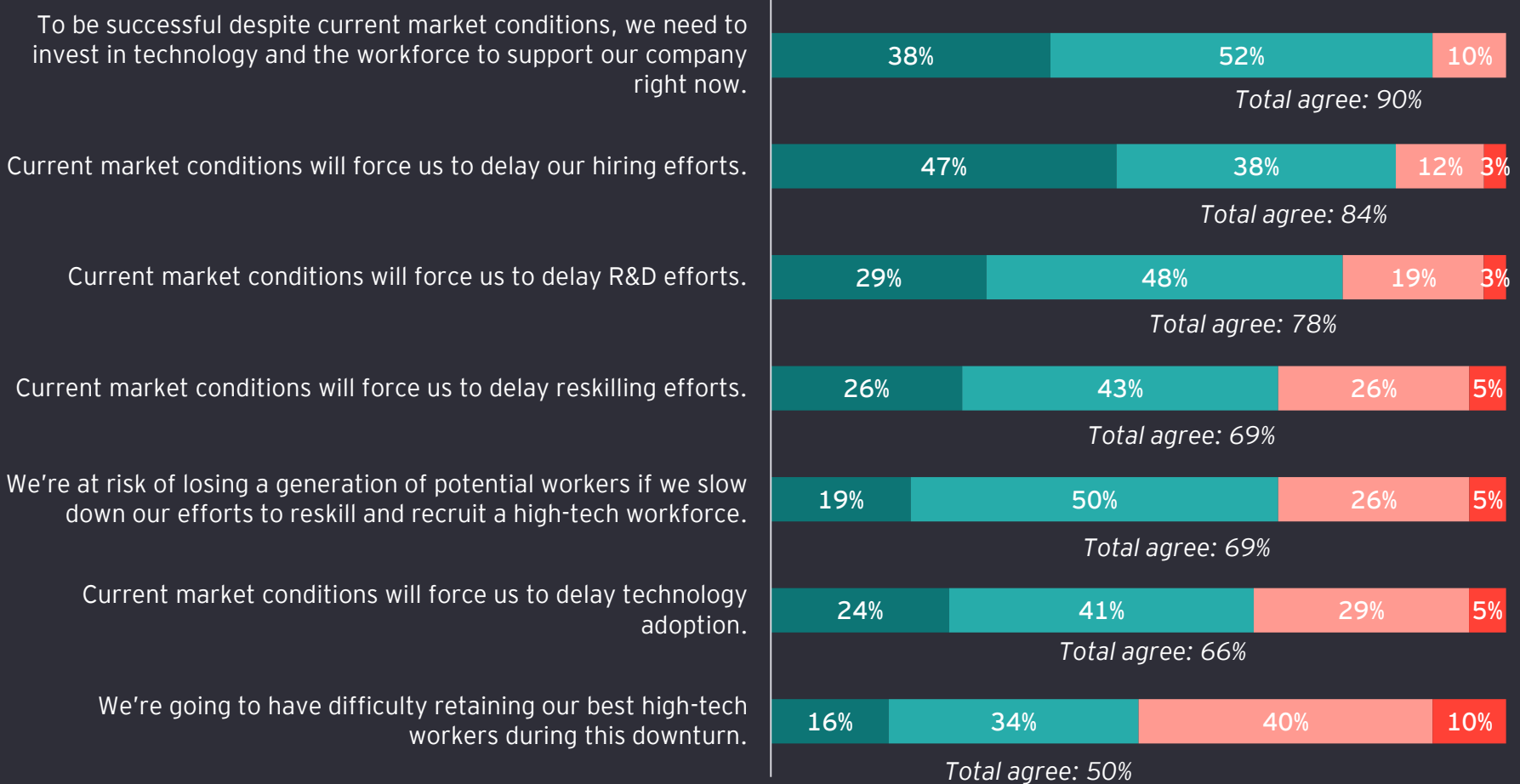
28: Do you agree or disagree with the following statements?

■ Strongly agree ■ Somewhat agree ■ Somewhat disagree ■ Strongly disagree



Q: Do you agree or disagree with the following statements?

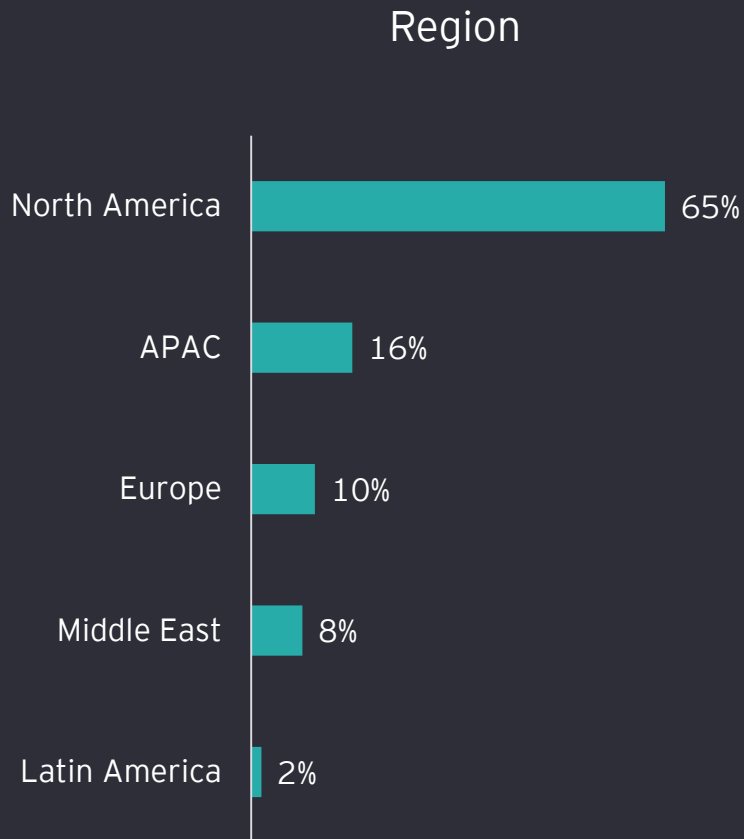
■ Strongly agree
 ■ Somewhat agree
 ■ Somewhat disagree
 ■ Strongly disagree



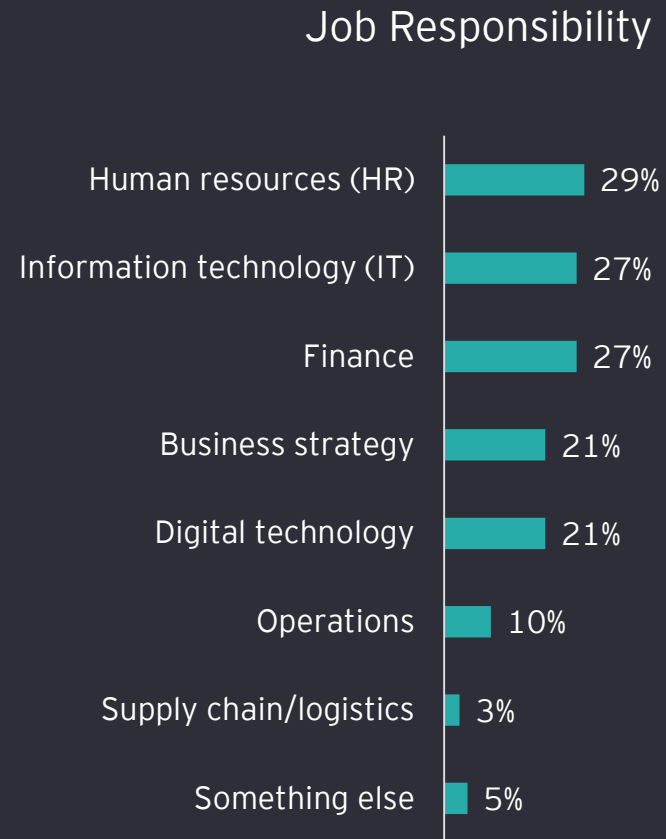


Demographics

Region



Which of the following are you responsible for within the company you work for?

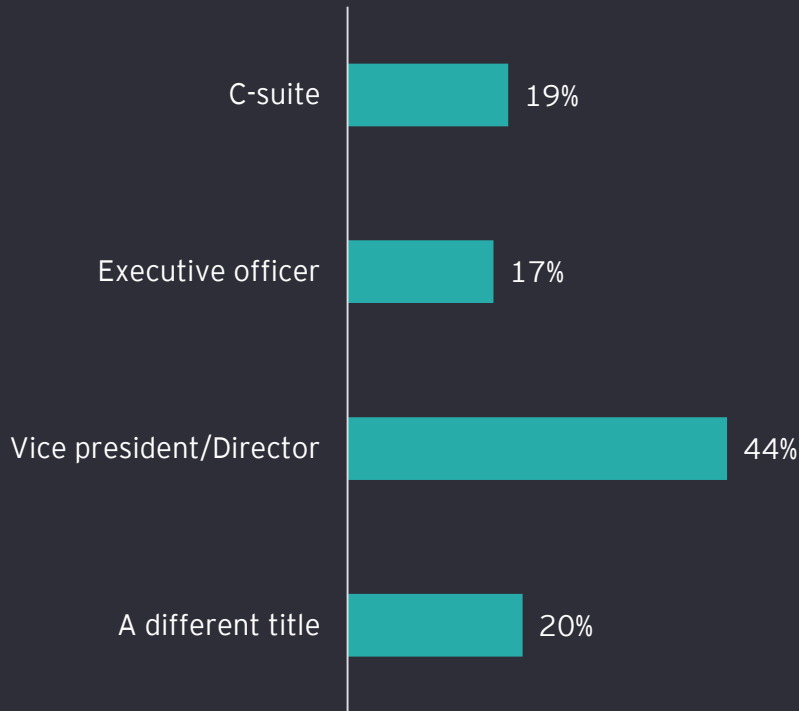


Q: Which of the following is closest to your job title?

Q: How many years have you worked in the oil and gas industry?

Q: Which of the following is closest to your view?

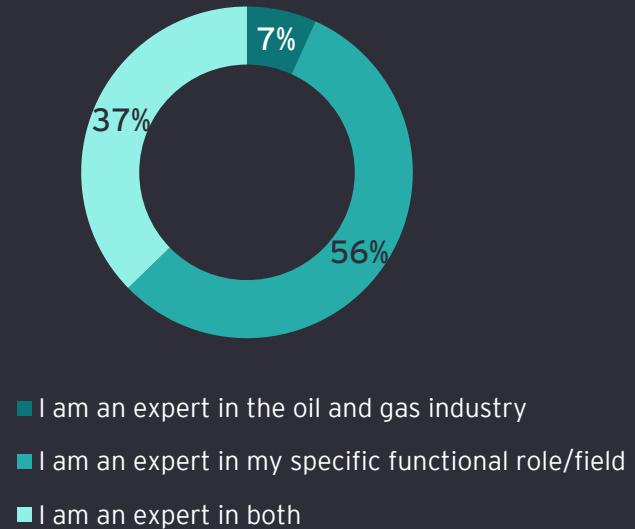
Seniority level



21 years

Average experience in the oil and gas sector

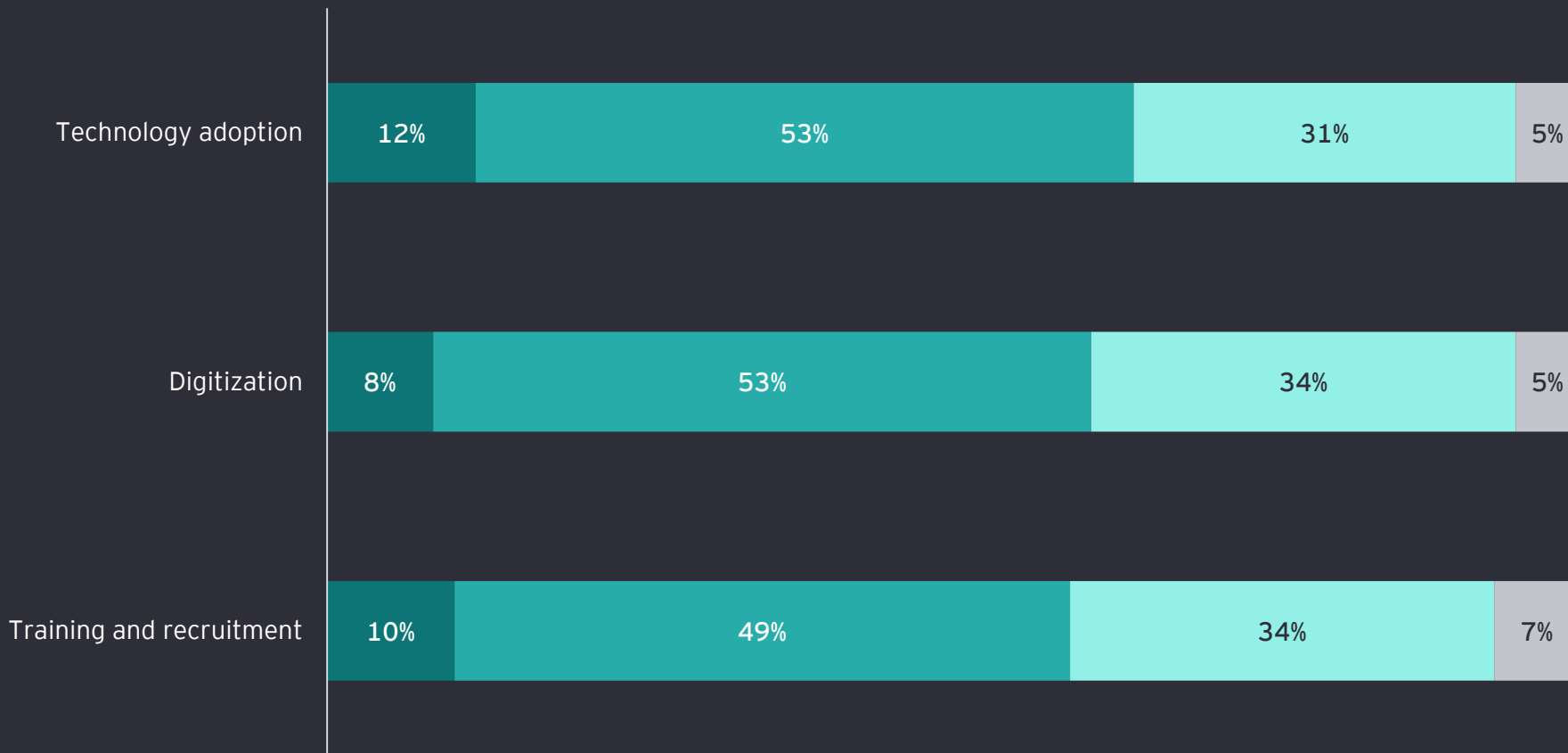
Industry expertise



Q: Which of the following best describes your role on each of the following?

Decision-making responsibilities

■ I am the primary decision-maker ■ I share decision-making ■ I advise decision-makers ■ None of these

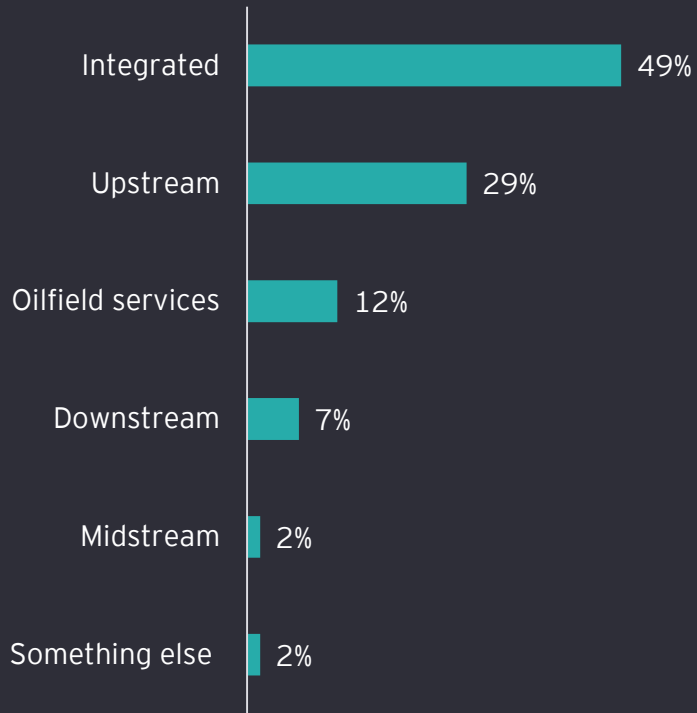


Q: Which of the following best describes your company?

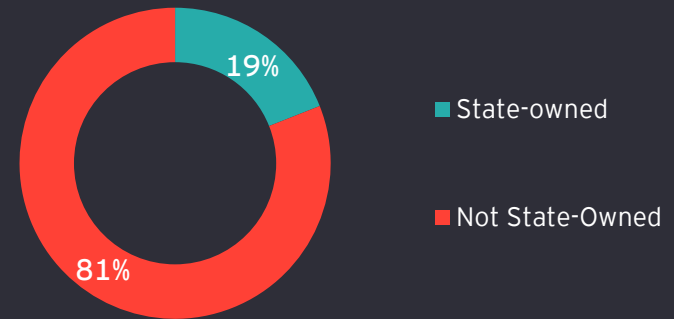
Q: Is your company a state-owned enterprise, either in whole or in part?

Q: Is your company publicly traded?

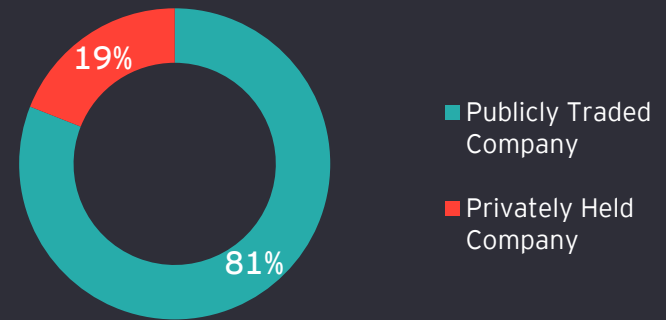
Organizational structure



Company ownership



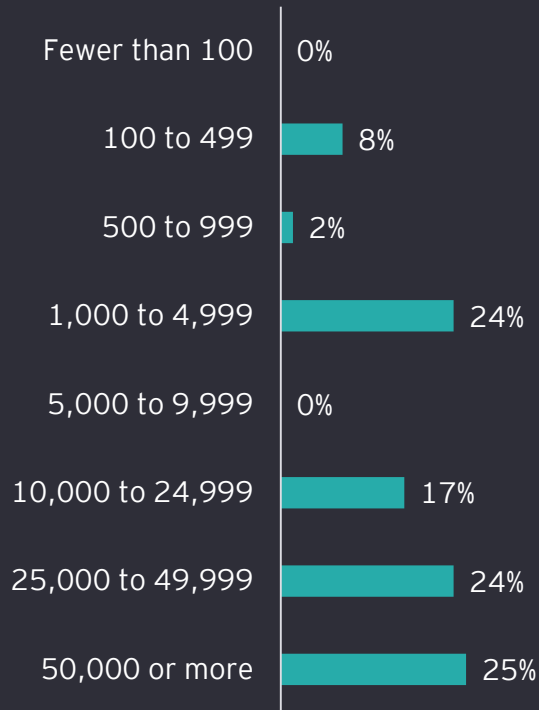
Public/private



Q: How many employees does your company have?

Q: Which of the following categories includes your company's annual revenue?

Number of employees

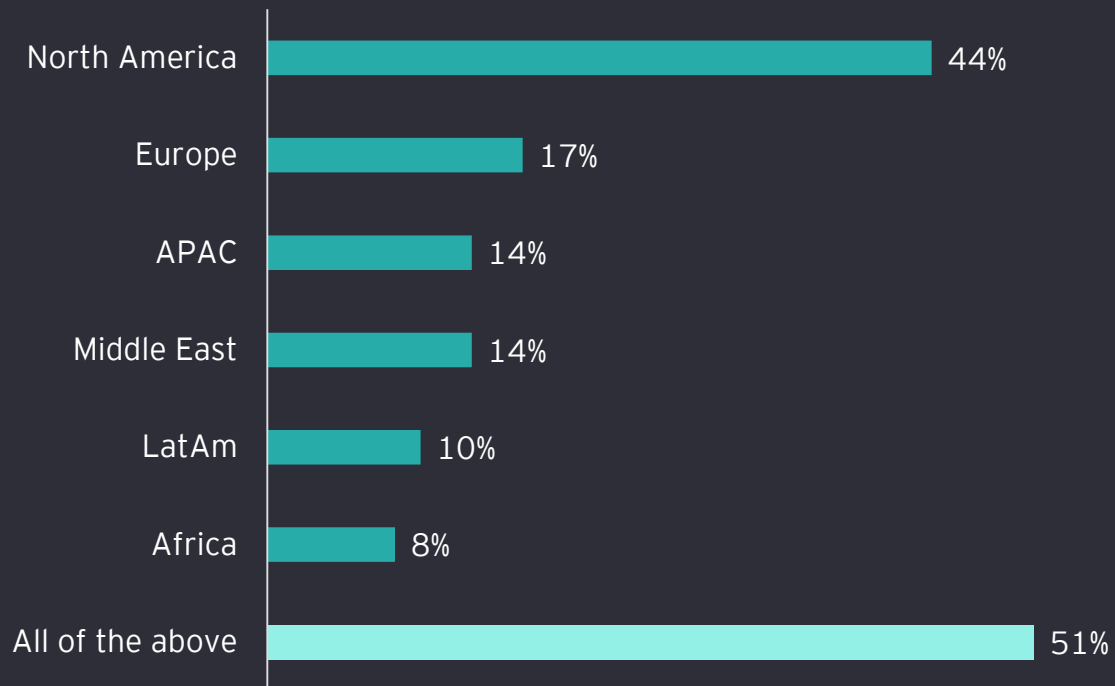


Annual revenue



Q: Where does your company currently have operations?

Operations by geography



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