

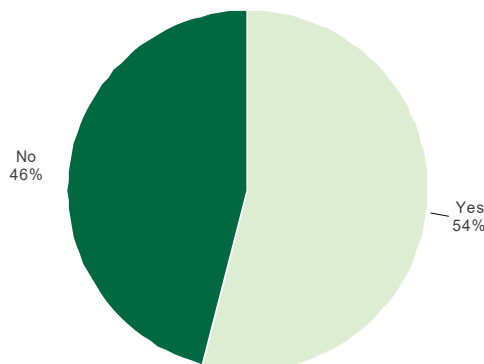


## Key findings

- **54% of participants claim that their organisation currently uses AI or machine learning applications.**
- **A further 15% have plans to use AI applications in their company (or 32% of those who don't currently use it).**
- **Among organisations currently using AI applications, the top two uses are the 'automation of repetitive / mundane tasks' (48%) and 'predicating outcomes bases on business data' (46%).**
- **To help develop or implement their AI solutions, the skills that respondents consider to be missing are technical skills (56%), data analysis skills (50%) and integration to business processes (48%).**
- **64% of respondents believe that AI will be important (top two boxes) in enabling their organisation's long-term goals.**

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**Does your organisation currently use artificial intelligence (AI) or machine learning applications?**

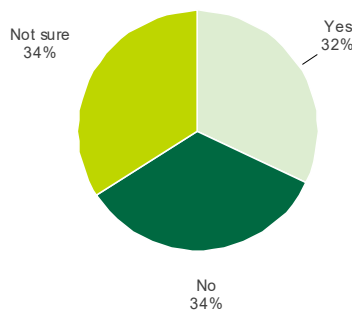


Just over half the respondents (54%) claim that their organisation currently uses AI or machine learning applications.

Larger organisations with over 250 employees are more likely than small to medium size businesses (up to 250 employees, referred to hereafter as SMEs) to use AI or machine learning applications (61% versus 41%).

Organisations within the IT industry (65%) are more likely than companies from all other industries (49%) to be using AI or machine learning applications.

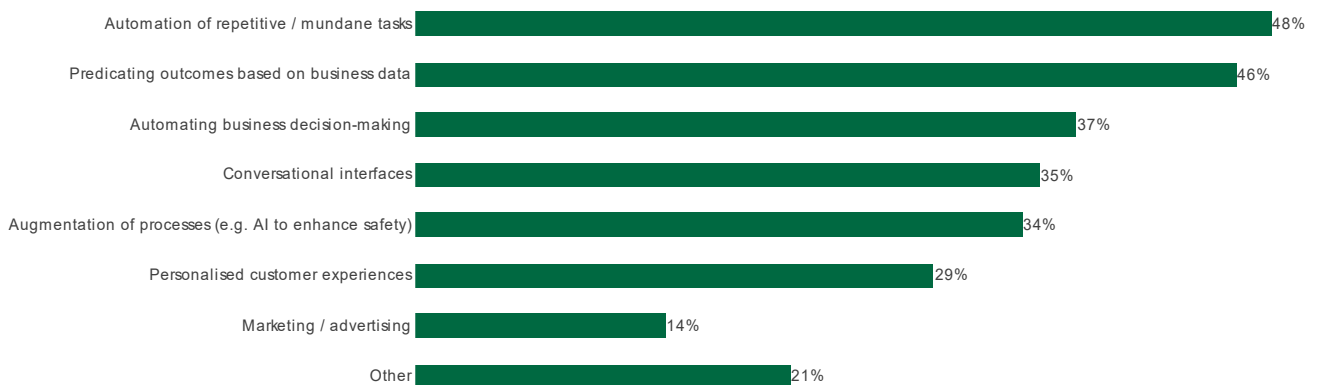
**Do you have any plans to use AI applications in your company?**



Base: all who do not currently use AI applications in their company (n=191)

Among those who do not currently use AI applications in their company, 32% have plans to do so. This represents 15% of all respondents.

**For which of the following does your organisation currently use AI applications? (Please tick all that apply)**



Base: all whose organisation currently uses AI or machine learning applications (n=226)

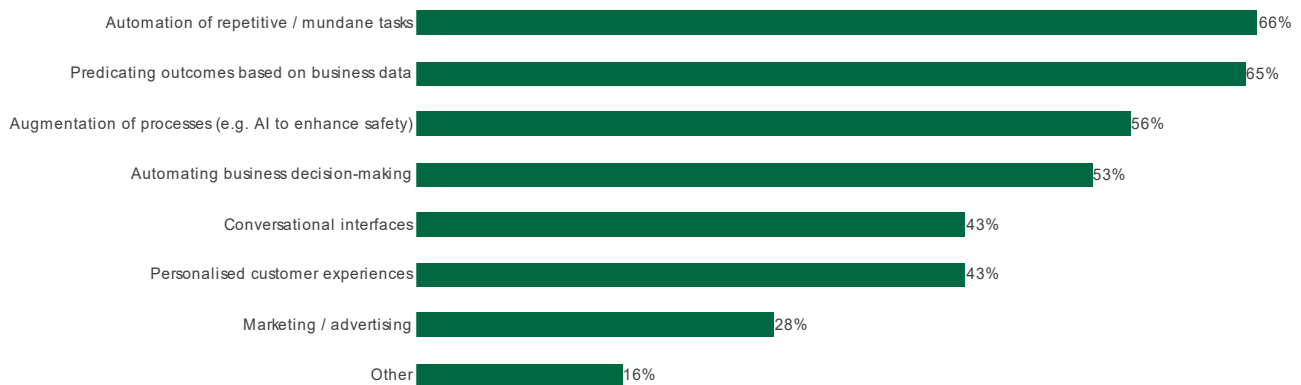
Among organisations currently using AI applications, the top two uses are the 'automation of repetitive / mundane tasks' (48%) and 'predicating outcomes bases on business data' (46%).

Among SMEs the top answer was the latter with 42%. The survey suggests that larger organisations are more likely than SMEs to use AI for the automation of repetitive or mundane tasks (54% versus 31%).

The uses of AI that organisations within the IT industry are more likely to employ compared with businesses from other industries are:

- Automation of repetitive / mundane tasks (59% versus 41%)
- Predicating outcomes based on business data (55% versus 39%)
- Conversational interfaces (45% versus 27%)
- Personalised customer experiences (37% versus 23%).

### What do you think your organisation's future areas of interest will be in relation to AI? (Please tick all that apply)



Base: all whose organisation currently uses AI applications or has plans to use it (n=288)

When it came to future areas of interest, the same areas as currently used were identified as the top two choices. Marketing / advertising scored the lowest out of the seven options presented but was still of interest to 28% of respondents who currently use AI or has plans to use it.

Future areas of interest were generally higher for larger organisation compared with SMEs. For example, 71% of respondents from larger organisations selected automation of repetitive / mundane task compared with 50% of SMEs.

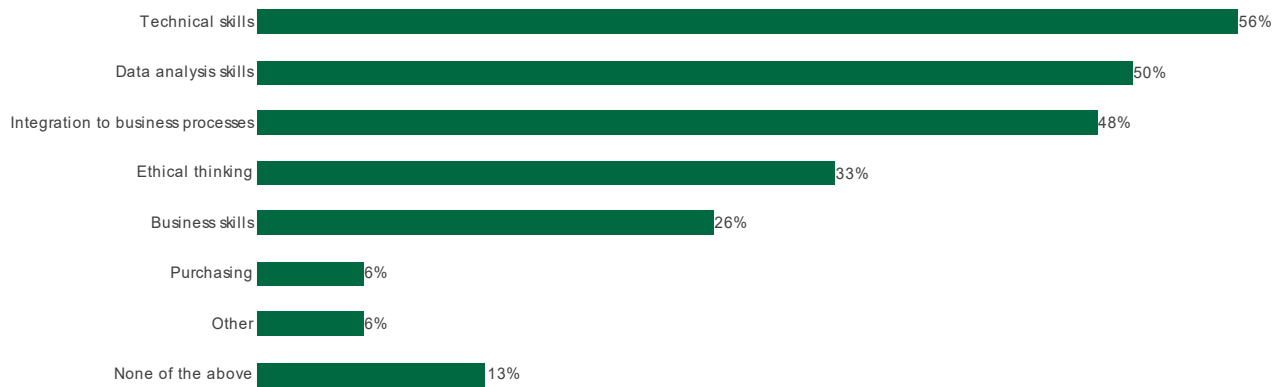
The differences between the IT industry and other industries are less pronounced as compared with current use. This suggests that other industries will close the gap or catch up with the IT industry in terms of their usage of AI applications.



**What type of job functions in your industry / sector do you see AI replacing or automating in the next five years?**



**To develop / implement your AI solutions, which skills do you consider are missing in your business today? (Tick all that apply)**

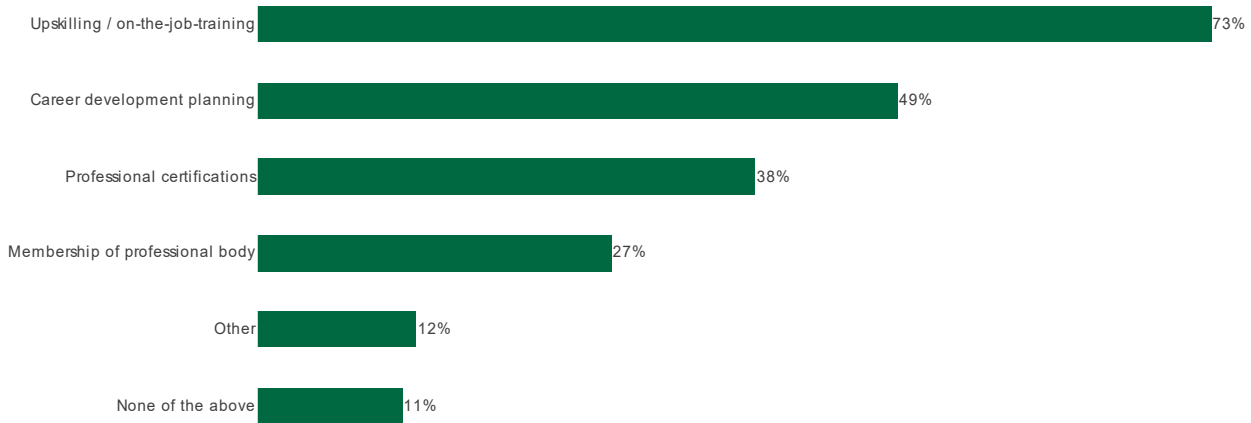


Base: all respondents who answered this question (n=377)

Participants were asked which skills they consider are missing in their business today, that would help them develop / implement their AI solutions. The top answers were technical skills (56%), data analysis skills (50%), and integration to business processes (48%).

Organisations outside the IT industry are more likely than those within the IT industry to cite technical skills (62% versus 45%).

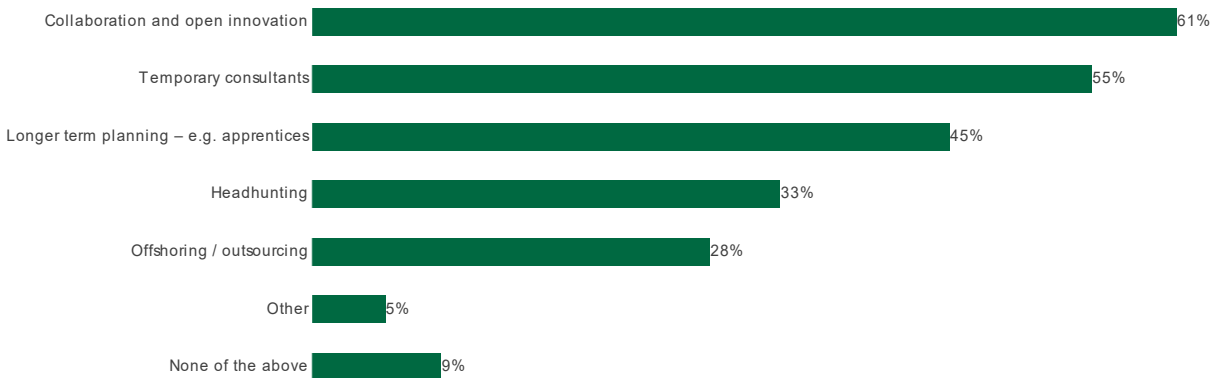
**Which of the following methods would you use to help develop your internal AI talent? (Please tick all that apply)**



Nearly three-quarters of respondents (73%) would use upskilling / on-the-job training to help develop their internal AI talent. 49% would use career development planning and 38% would use professional certifications.

Larger organisations scored higher than SMEs on most of the factors presented. The biggest difference was with career development planning, chosen by 56% of organisations with over 250 employees compared with 35% of SMEs.

**Which of these approaches might you take, if you consider using external support to enhance your AI capability? (Please tick all that apply)**



Base: all respondents who answered this question (n=377)

If considering using external support to enhance their AI capability, 61% might use collaboration and open innovation, 55% would opt for temporary consultants and 45% would employ longer term planning - e.g. apprentices.

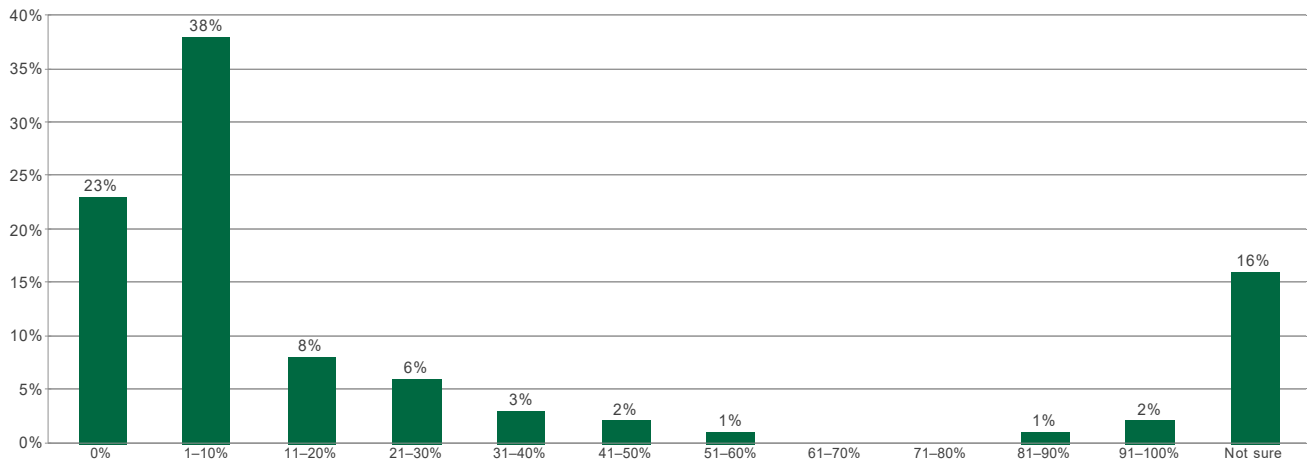
**How important do you believe AI will be in enabling your organisation’s long-term goals?  
(Please rate on a 1 to 5 scale where 1 is "not at all important" and 5 is "very important")**

Base % Respondents	
Base	100%
Mean	3.66
<b>Not at all important / Very important</b>	
Not at all important	7%
2	11%
3	18%
4	37%
Very important	27%

64% of those questioned believe AI is important in enabling their organisation's long-term goals (top 2 boxes).

There is evidence from the survey to suggest that organisations outside the UK are more likely than businesses within the UK to believe AI is important in enabling their long-term goals (72% versus 62%).

**Approximately what percentage of your investment does your organisation use today on AI innovation and research?**



Nearly one-quarter of respondents claim that their organisation does not invest anything in AI innovation and research. 16% said they were not sure. 38% spend between 1–10%, 8% invest between 11–20%, and 6% spend between 21–30%. The mean average investment is approximately 11%\*.

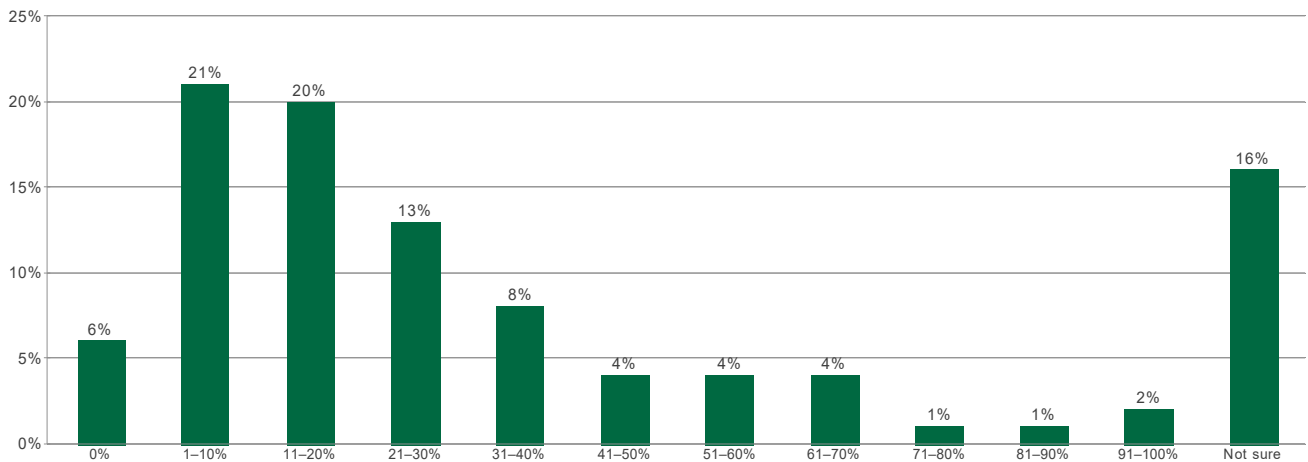
Not surprisingly larger organisations are more likely to invest in AI innovation and research with 64% indicating they are doing so compared with 55% of SMEs. However, SMEs spend a higher proportion of their investment on AI than larger organisations (mean averages approximately 15% versus 10%).

Organisations within the IT industry are investing more in AI than companies outside the IT industry (mean average of 17% of investment compared with 9%).

The survey also suggests that organisations outside the UK are spending a higher proportion of their investment on AI innovation and research, compared with UK companies (mean average of 17% versus 10%).

\* This includes those organisations who don't invest anything in AI.

**Where do you see this percentage in five years' time?**



The investment in AI is expected to increase over the next five years. In five years' time 78% expect their organisation to be investing in AI research and innovation, and 16% are not sure if they will. Only 6% stated they would not be investing. The approximate mean average spend as a proportion of their investment is expected to rise to 24% from 11% currently.

21% indicated they expect their organisation to be investing between 1–10%, 20% thought it would be 11–20%, and 13% felt the figure could be 21–30%.

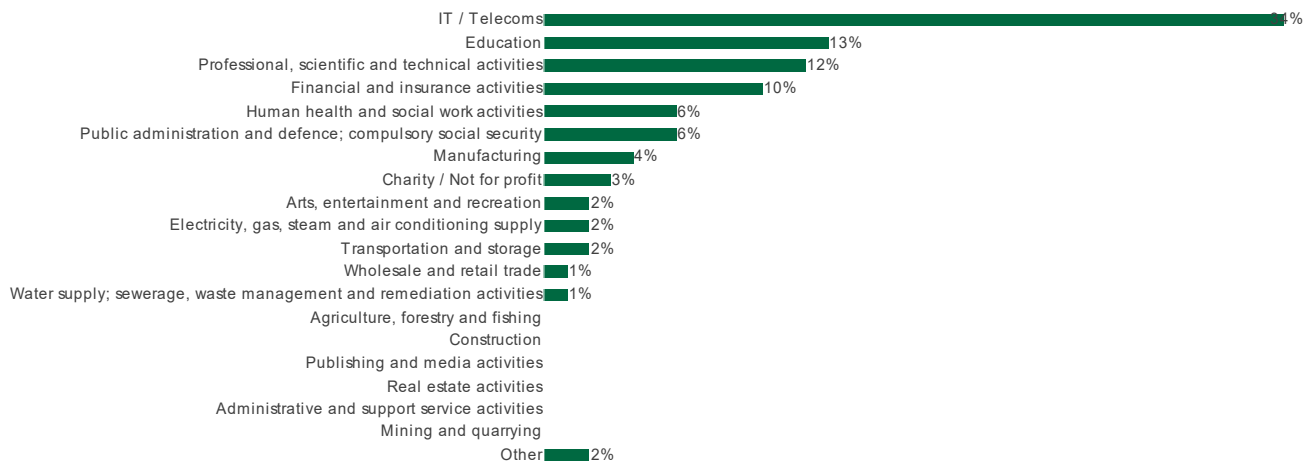


### In AI projects, which of these project phases do you think are most important to ongoing success? (Please rank your top three)

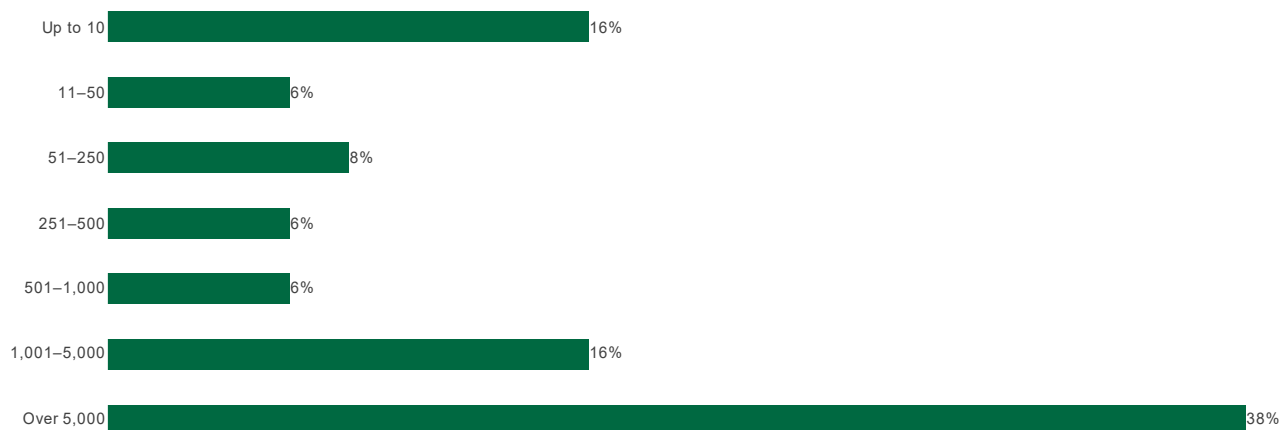
Analysis % Respondents	Total	Not in top 3	First choice	Second choice	Third choice
User requirements gathering	417	45%	45%	8%	3%
Picking the right technologies	417	66%	12%	13%	9%
Data cleansing	417	72%	9%	13%	6%
Building and engineering	417	78%	3%	9%	10%
Data management and organisation	417	67%	8%	14%	10%
Training the AI	417	62%	7%	15%	16%
Socialising the AI among staff and customers	417	82%	4%	7%	8%
Deploying the system	417	90%	1%	3%	6%
Monitoring for bias / bad decisions	417	60%	6%	11%	22%

When questioned about which project phases are most important to ongoing success, user requirements gathering was by far the most frequently mentioned response. 45% ranked it as their most important phase.

### In which type of organisation do you work?



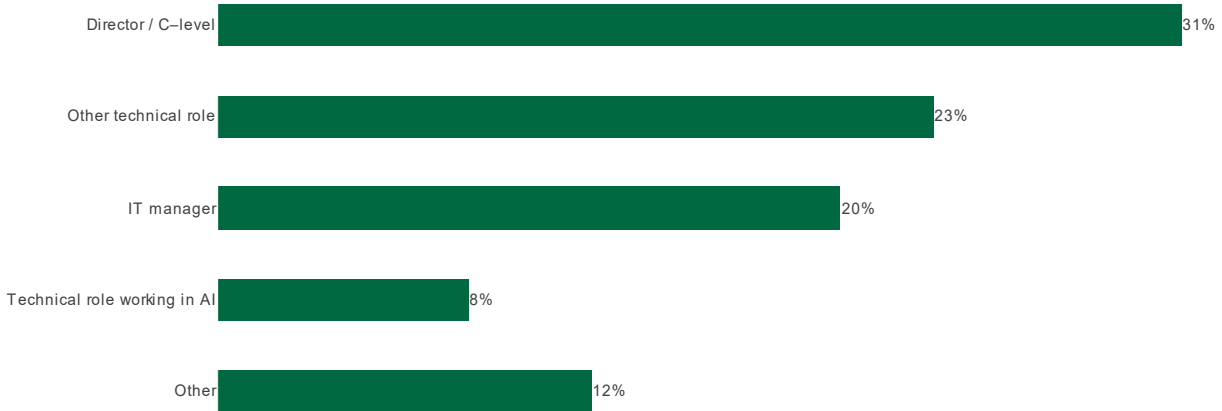
### How many people are currently employed worldwide in your organisation?



### Where are you based?



### Which of the following best describes your job role?



### Technical notes

The survey was conducted online by BCS. Overall 417 respondents completed this questionnaire during the period 18 March to 15 April 2019. This represents a response rate of 4.8%. The survey was aimed at both decision-makers and those working in AI tech.

The base for each pre-coded question is 417 unless otherwise indicated.