

ISC2™

Your Future. Secured.

2024 Cybersecurity Workforce Survey

Focus on the E.U.

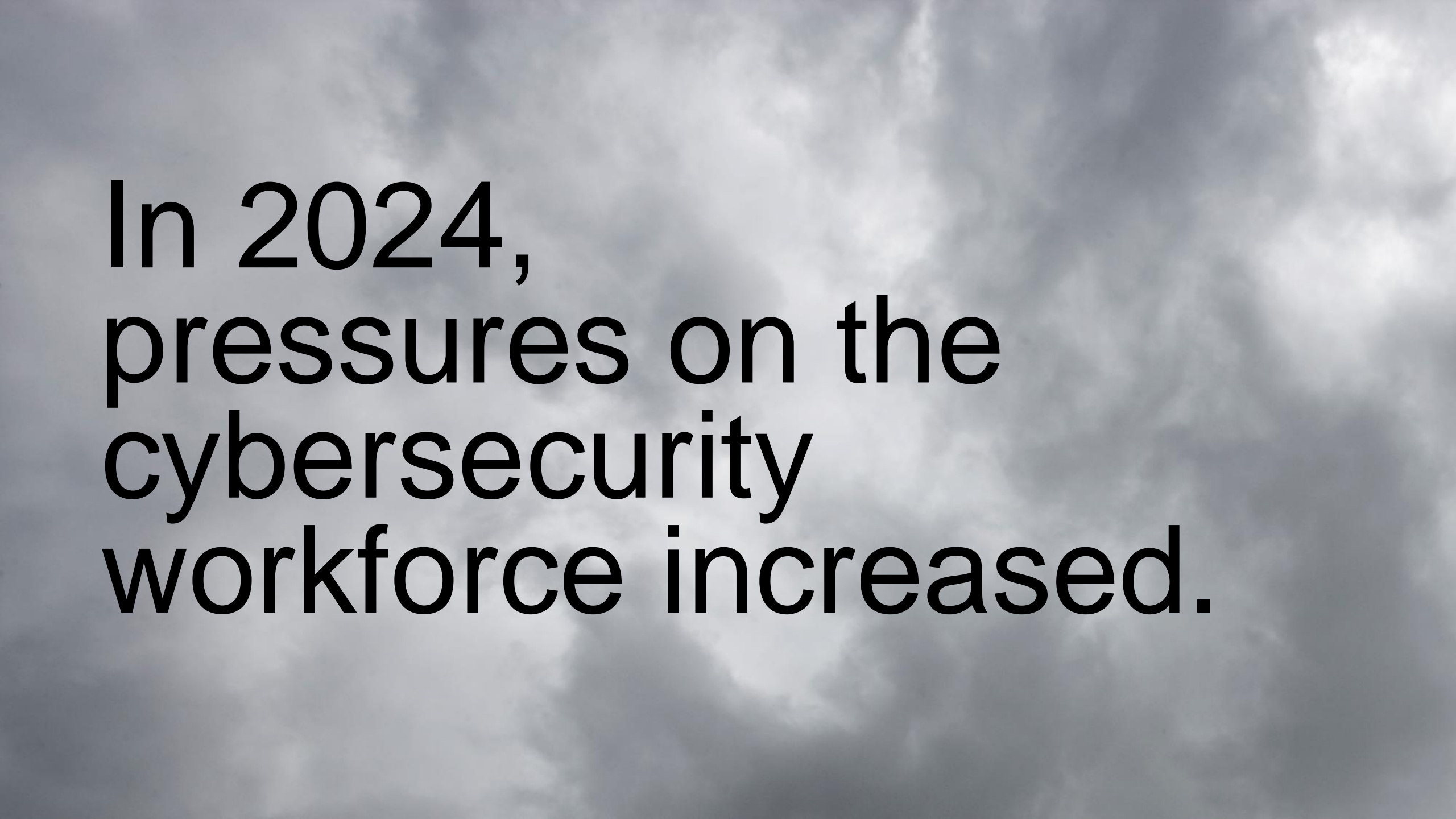
ISC2 CYBERSECURITY WORKFORCE STUDY

ISC2

Global Cybersecurity Workforce
Prepares for an AI-Driven World

2024





In 2024,
pressures on the
cybersecurity
workforce increased.

Gen AI delivers some benefits



2024 ISC2 Cybersecurity Workforce Study

Focus on the E.U.



The Threat Landscape



The background of the slide features a dark blue field with out-of-focus, glowing blue digital characters and symbols, suggesting a data or network environment. Overlaid on the right side is a large, semi-transparent red warning triangle with a thick border and a central exclamation mark.

72%

of cybersecurity
professionals say
the threat landscape
is the worst they've
seen in 5 years

Source: 2024 ISC2 Cybersecurity Workforce Study.



Focus on the E.U.

A close-up, slightly blurred image of a person's face in profile, wearing glasses. They are looking at a computer screen that displays green text on a dark background, resembling code or data. The lighting is dim, with the screen being the primary light source.

42%

of E.U. cybersecurity professionals have been approached by a malicious actor wanting them to act as a malicious insider

Source: 2024 ISC2 Cybersecurity Workforce Study.



Focus on the E.U.



53%

anticipate a rise
in malicious
actors contacting
cybersecurity
professionals
over the next year

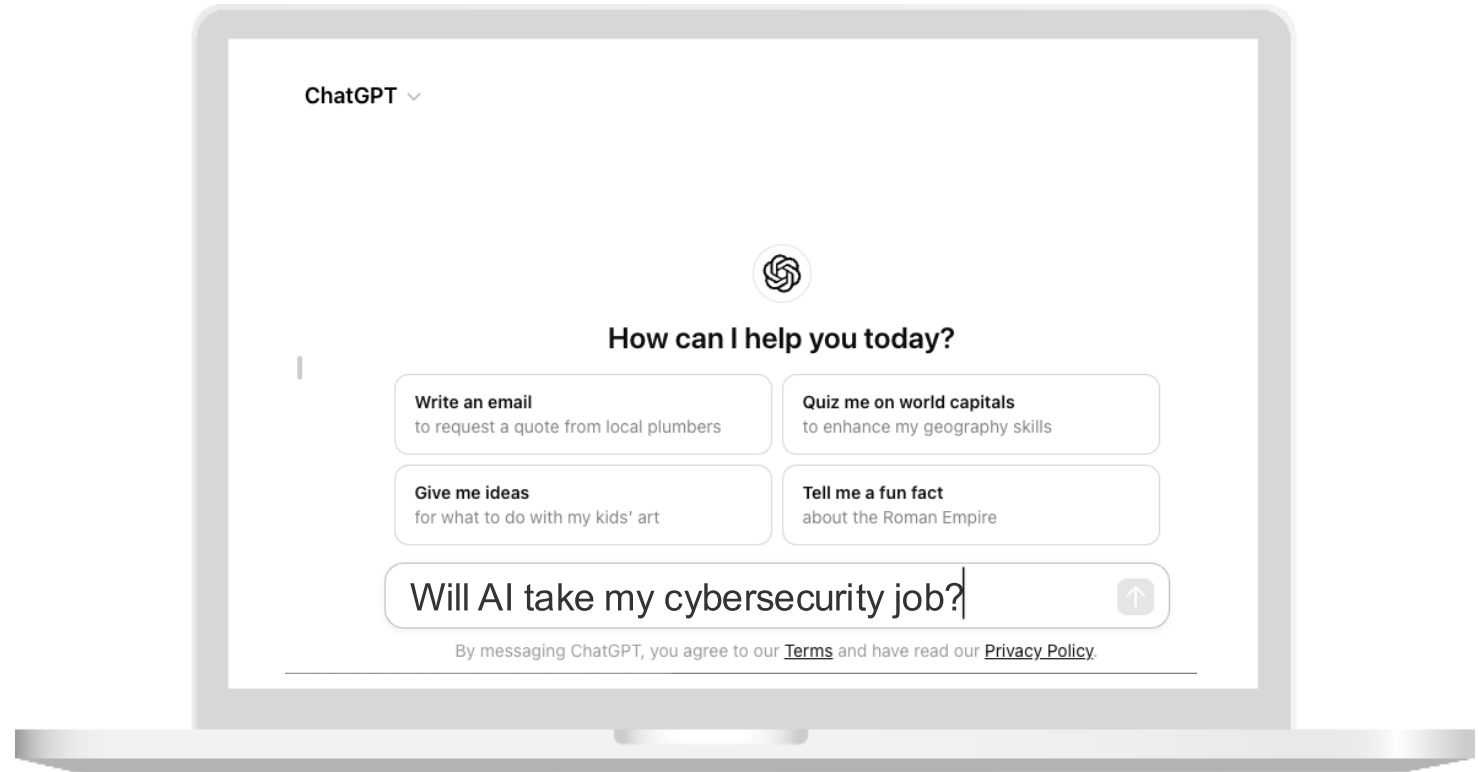
Source: 2024 ISC2 Cybersecurity Workforce Study.



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48%

say the biggest challenge the industry faces will be emerging technologies



Source: 2024 ISC2 Cybersecurity Workforce Study.

Emerging tech with the greatest *positive* impact on organisational security

41%

35%

29%

26%

23%

22%

16%

15%

12%

11%

10%

10%

10%

9%

8%

8%

7%

7%

Automation in cybersecurity

Advancements in AI

Zero Trust network access

Risk-based vulnerability management

Extended detection and response (XDR)

Passwordless authentication

Zero Trust Edge (ZTE)

Post-quantum cryptography

Quantum computing

Confidential computing

Hardware/firmware security

Increased processing power/speed

Blockchain

Telecomm improvements

Mobile computing advances

Increases in edge computing

Cyberstorage

Reduction in hardware form factor

Emerging tech with the greatest *negative* impact on organisational security

15%

43%

8%

10%

8%

16%

6%

22%

35%

12%

11%

23%

17%

10%

19%

16%

14%

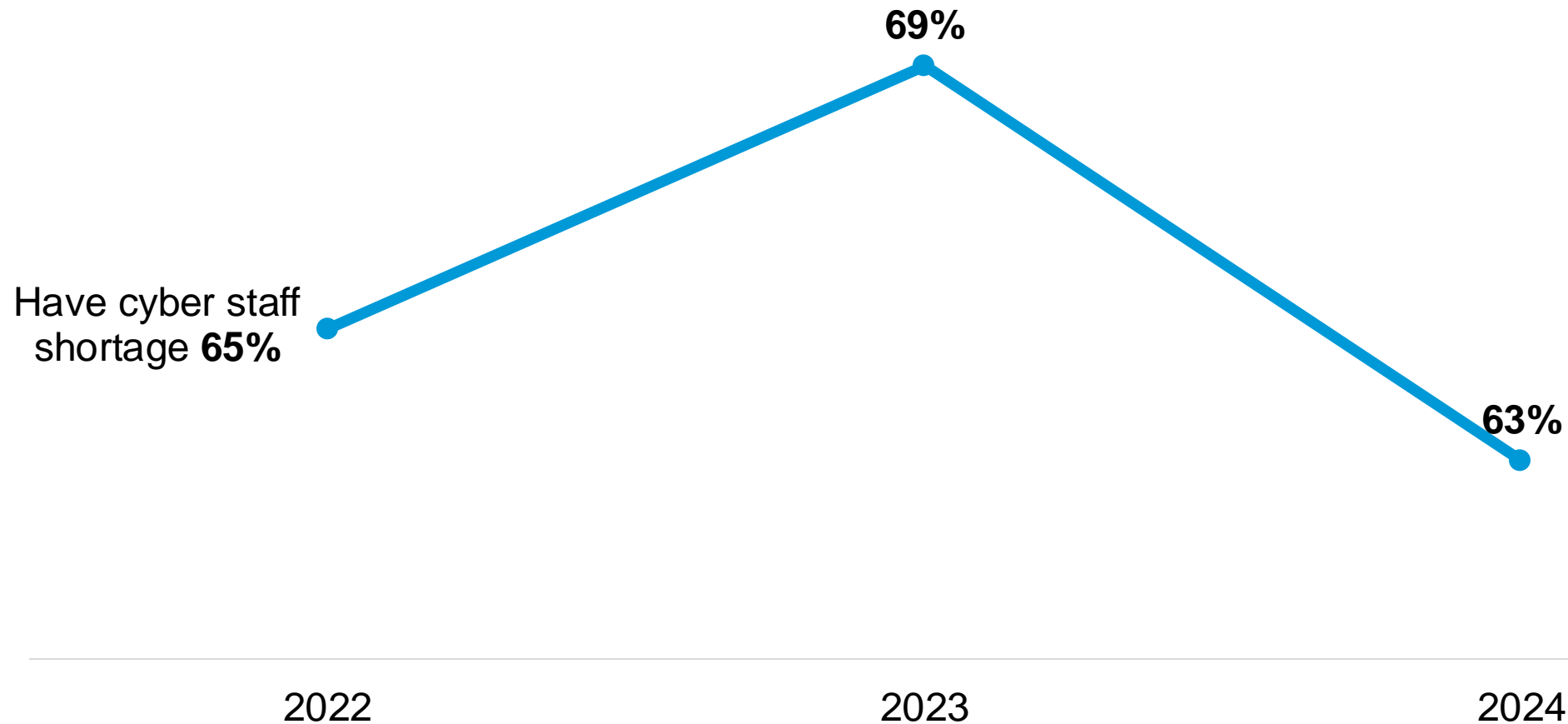
13%

Source: 2024 ISC2 Cybersecurity Workforce Study.



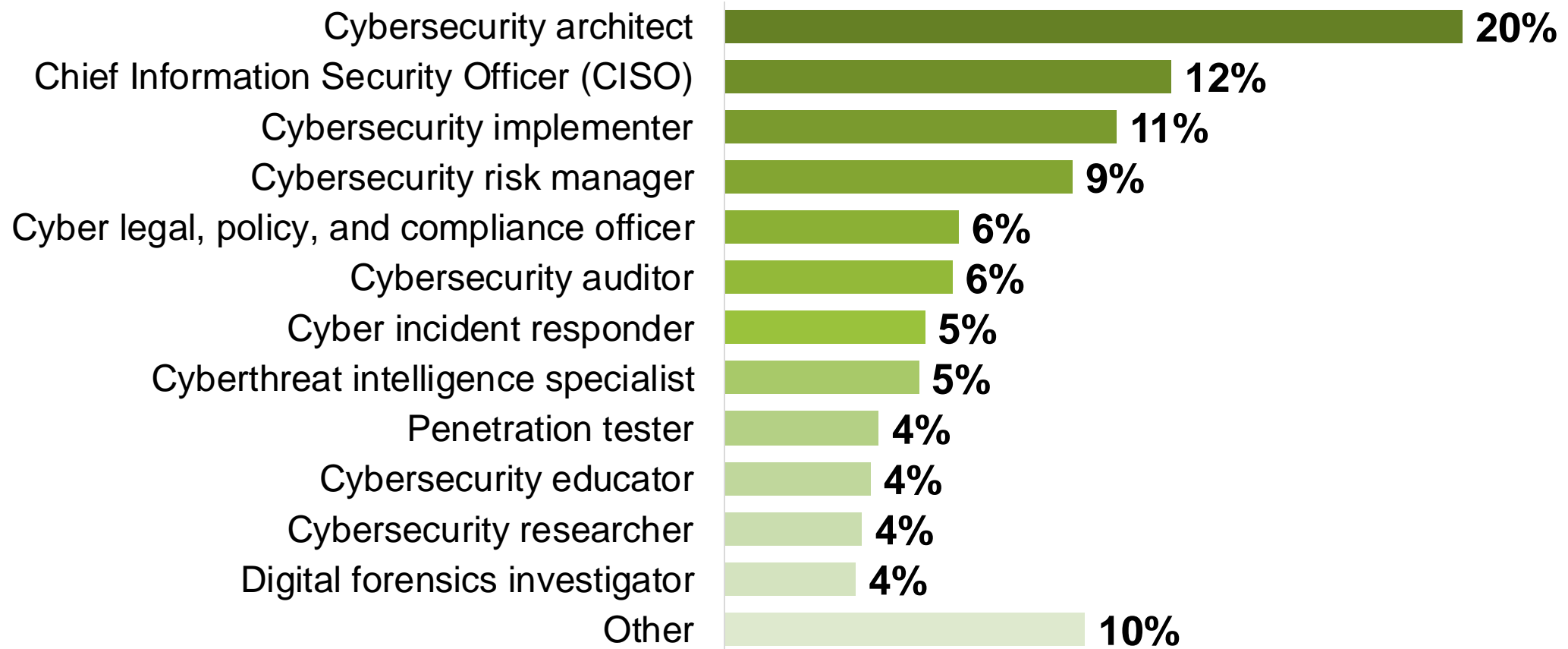
State of the Cybersecurity Workforce

Cybersecurity staffing shortages are a persistent issue for organizations in the E.U.



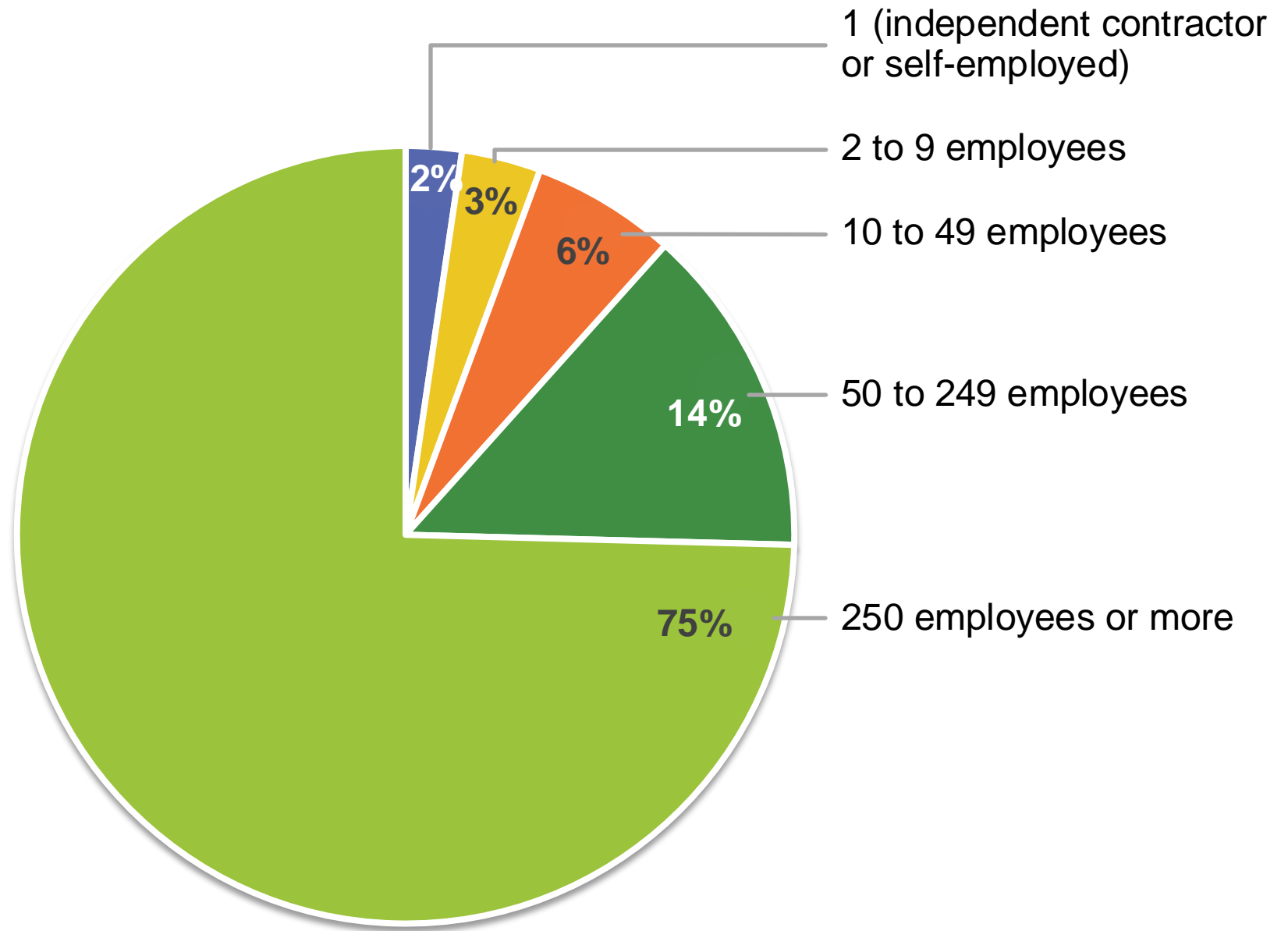
Source: 2024 ISC2 Cybersecurity Workforce Study.

Which of the following best describes your role/title (in relation to ECSF)?



Source: 2024 ISC2 Cybersecurity Workforce Study.

How many employees are in your organization?



Source: 2024 ISC2 Cybersecurity Workforce Study.

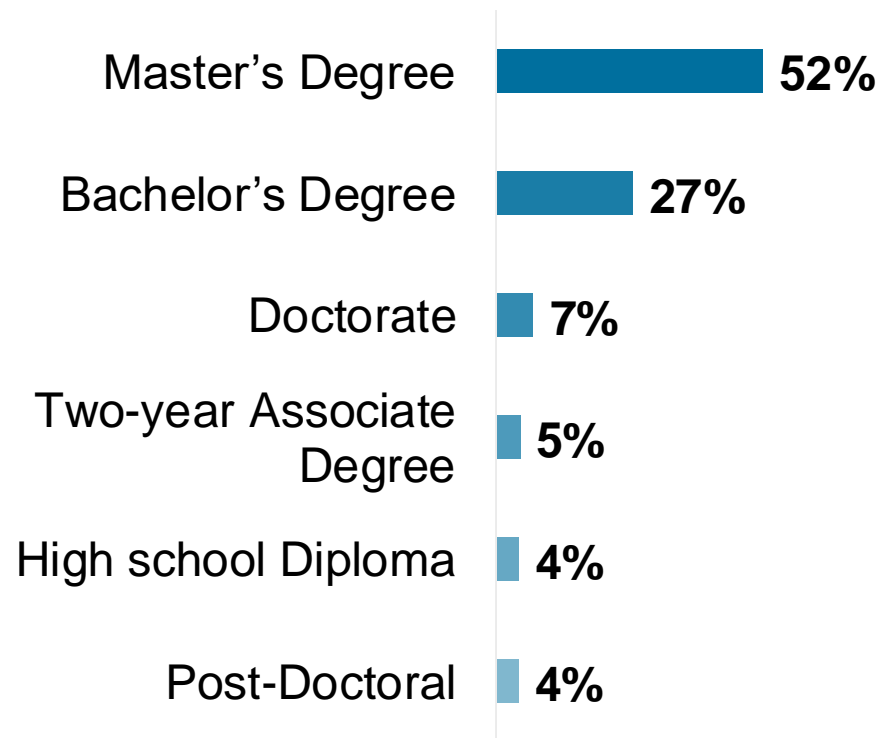
Level within organisation



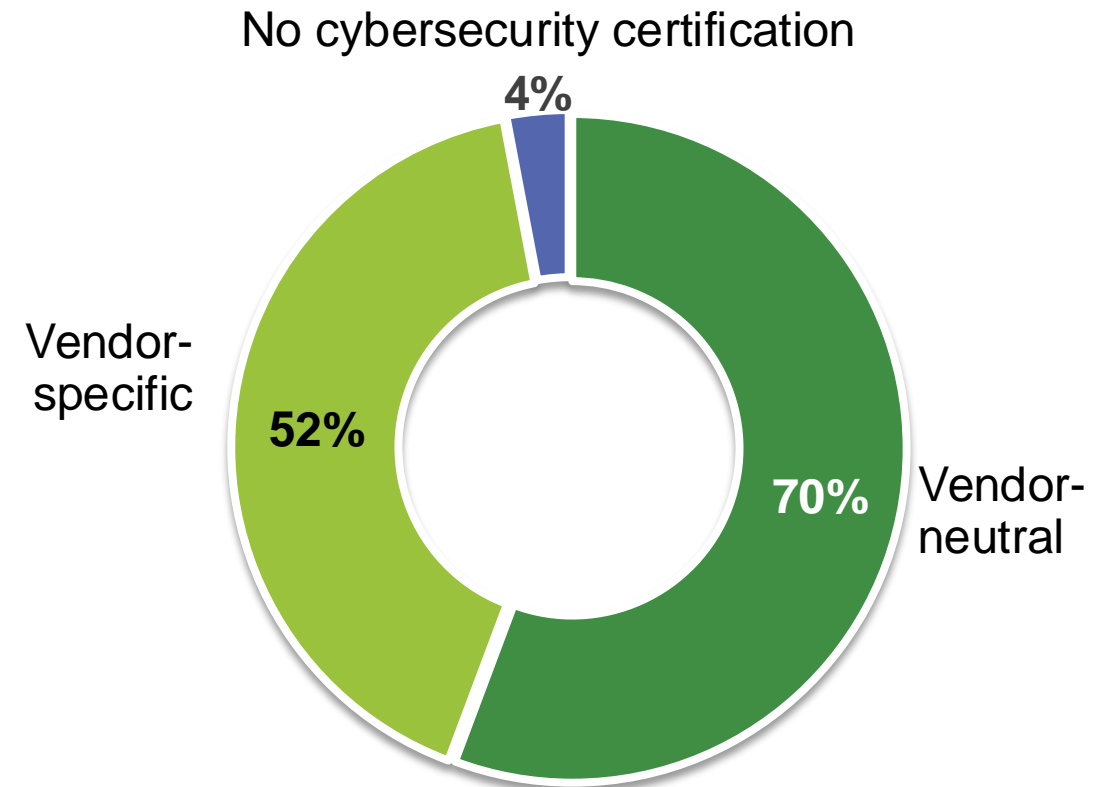
Source: 2024 ISC2 Cybersecurity Workforce Study.

Vendor-neutral cybersecurity certifications are the standard choice among professionals

Highest level of education completed

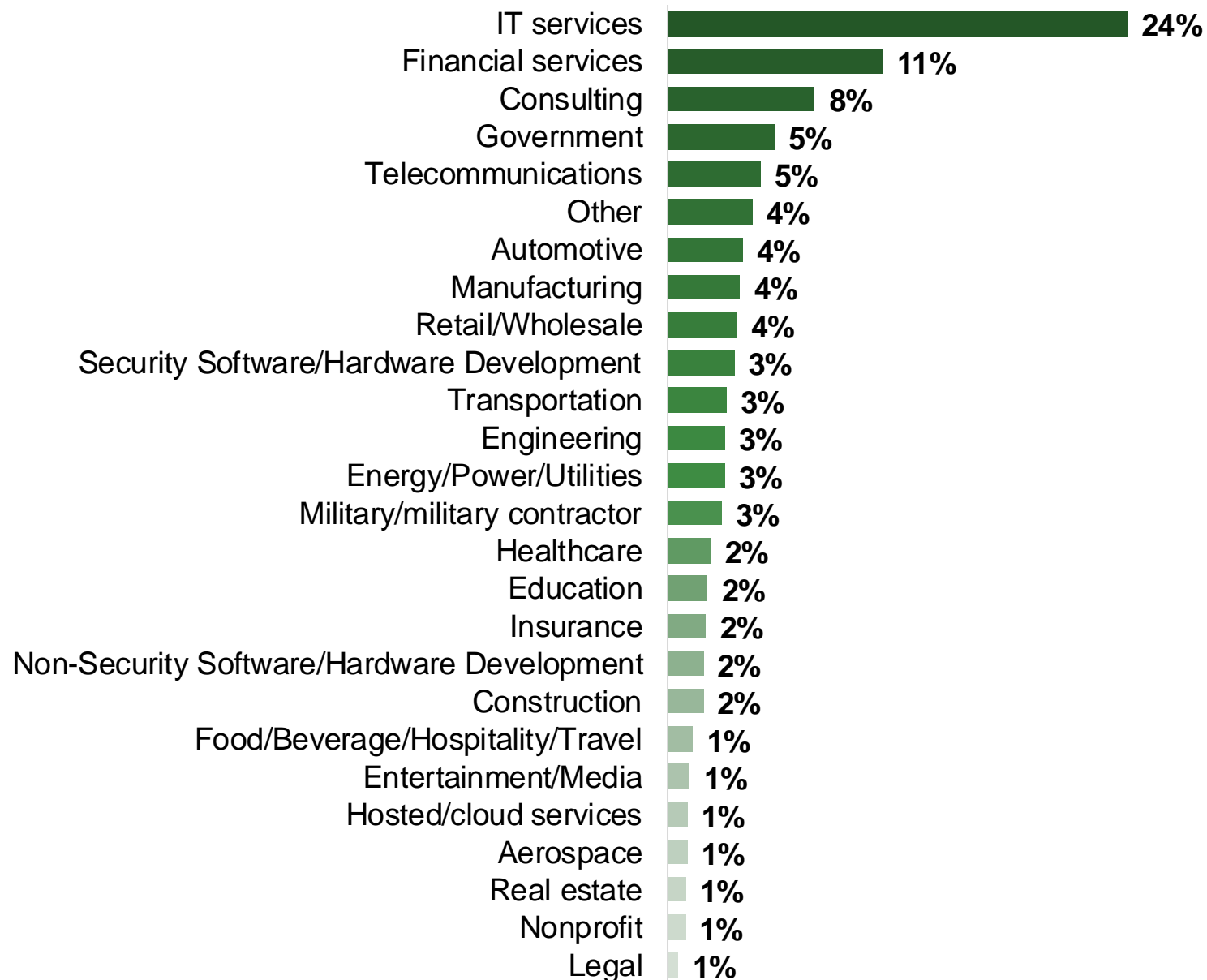


Cybersecurity certification currently held



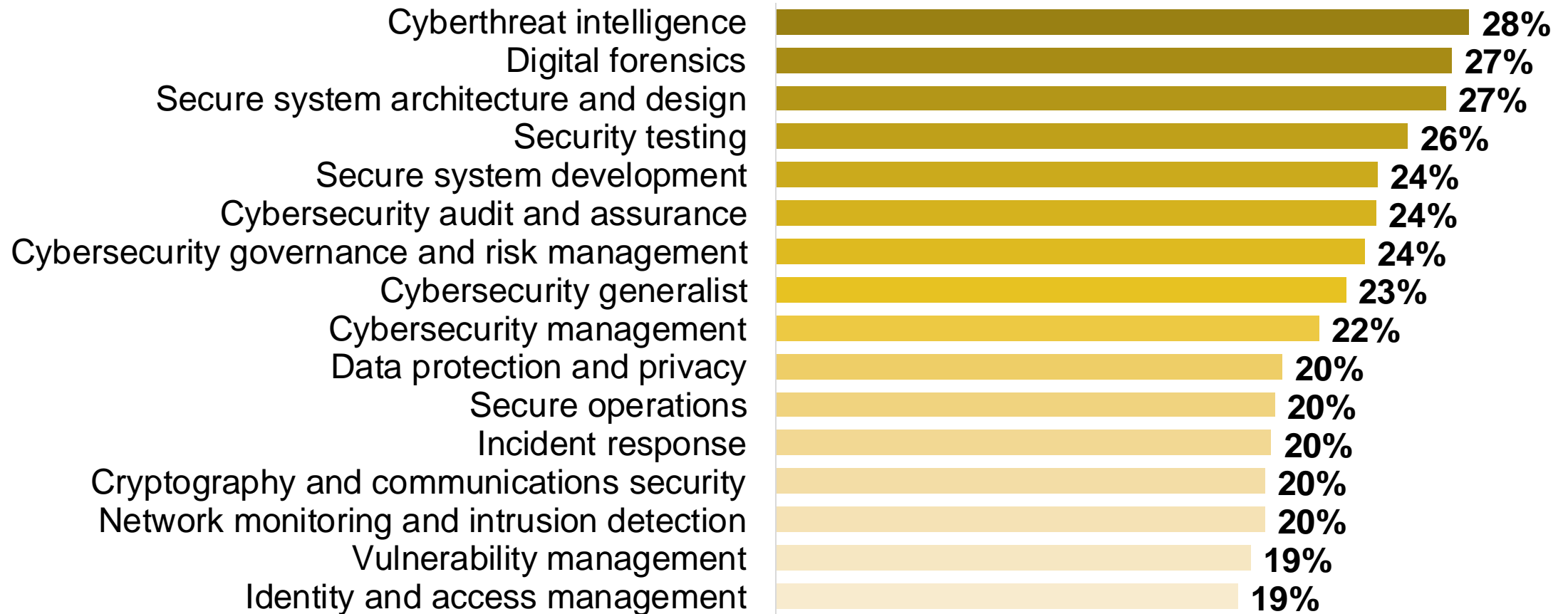
Source: 2024 ISC2 Cybersecurity Workforce Study.

Which of the following best describes the industry your organization is in?



Source: 2024 ISC2 Cybersecurity Workforce Study.

In which areas/roles is your organisation lacking cybersecurity talent?



55%

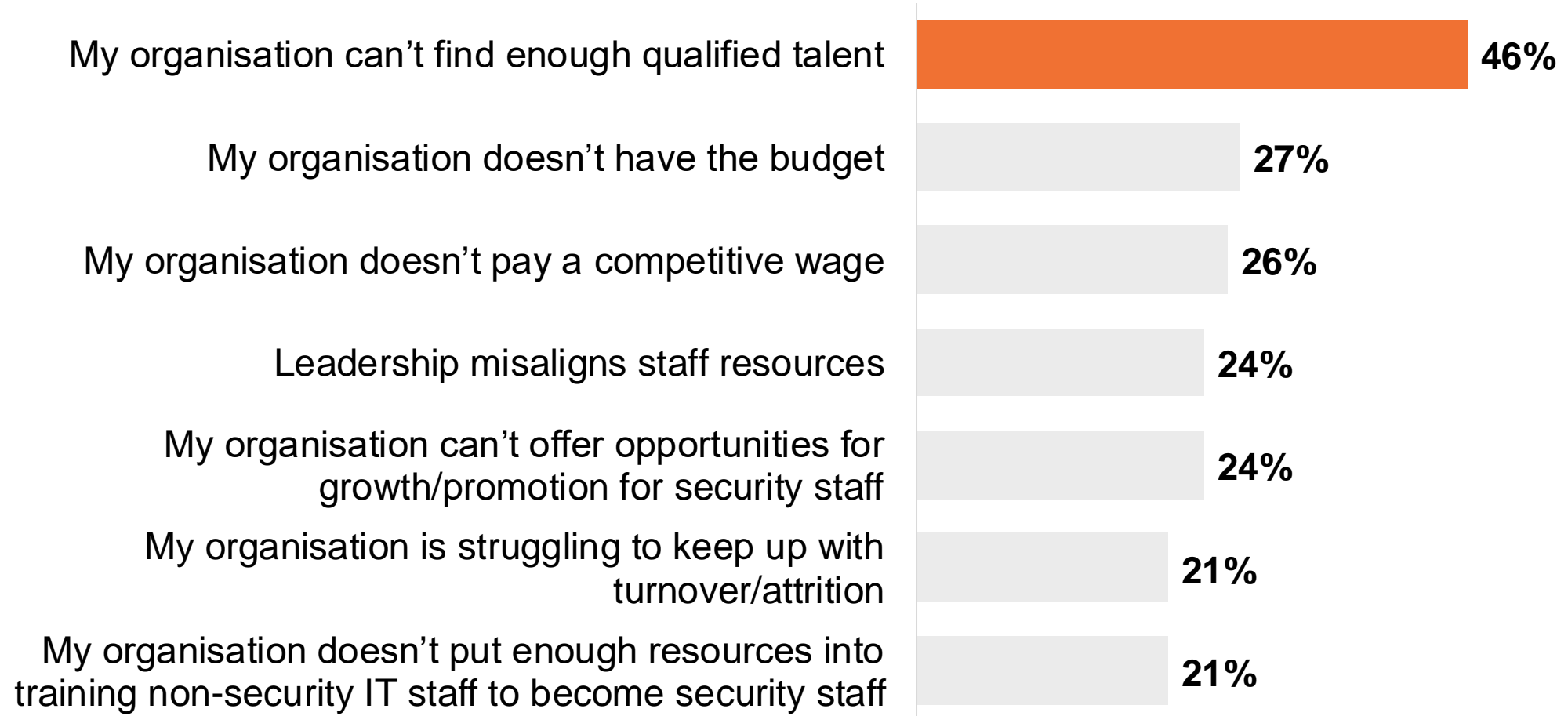
say that staffing shortages put their organisations at significant risk of cyber attacks

Source: 2024 ISC2 Cybersecurity Workforce Study.



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Reasons for cybersecurity staff shortages



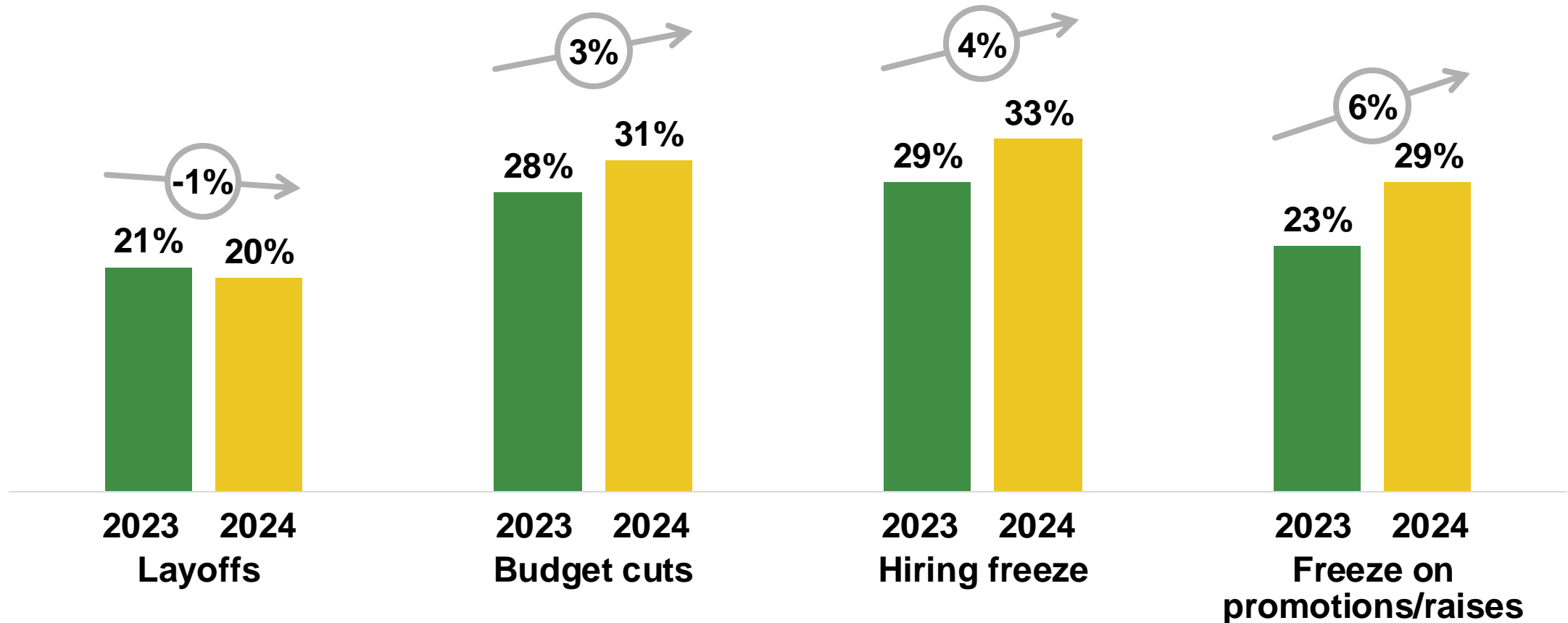
Source: 2024 ISC2 Cybersecurity Workforce Study.

Impact of staffing shortages

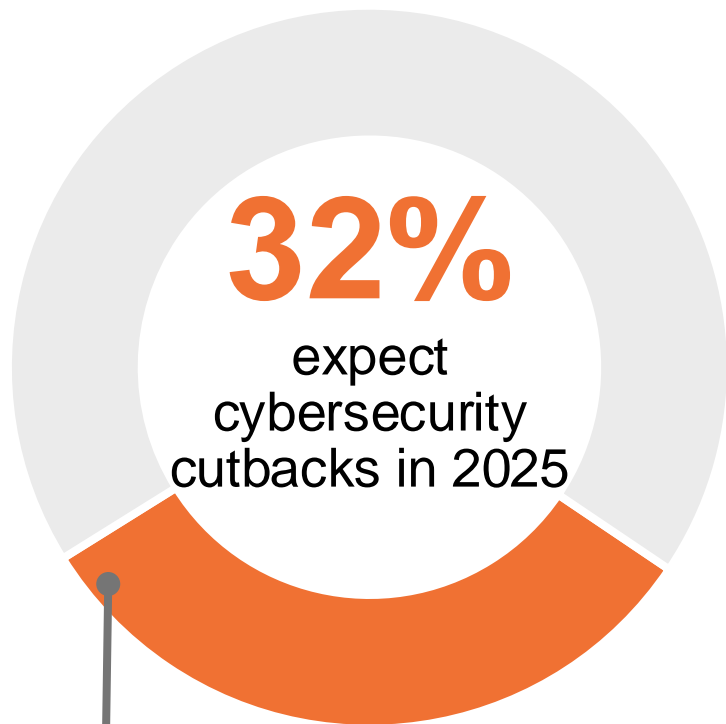


Source: 2023 ISC2 Cybersecurity Workforce Study.

Organisations have experienced cybersecurity cutbacks in the past 12 months



Source: 2024 ISC2 Cybersecurity Workforce Study.



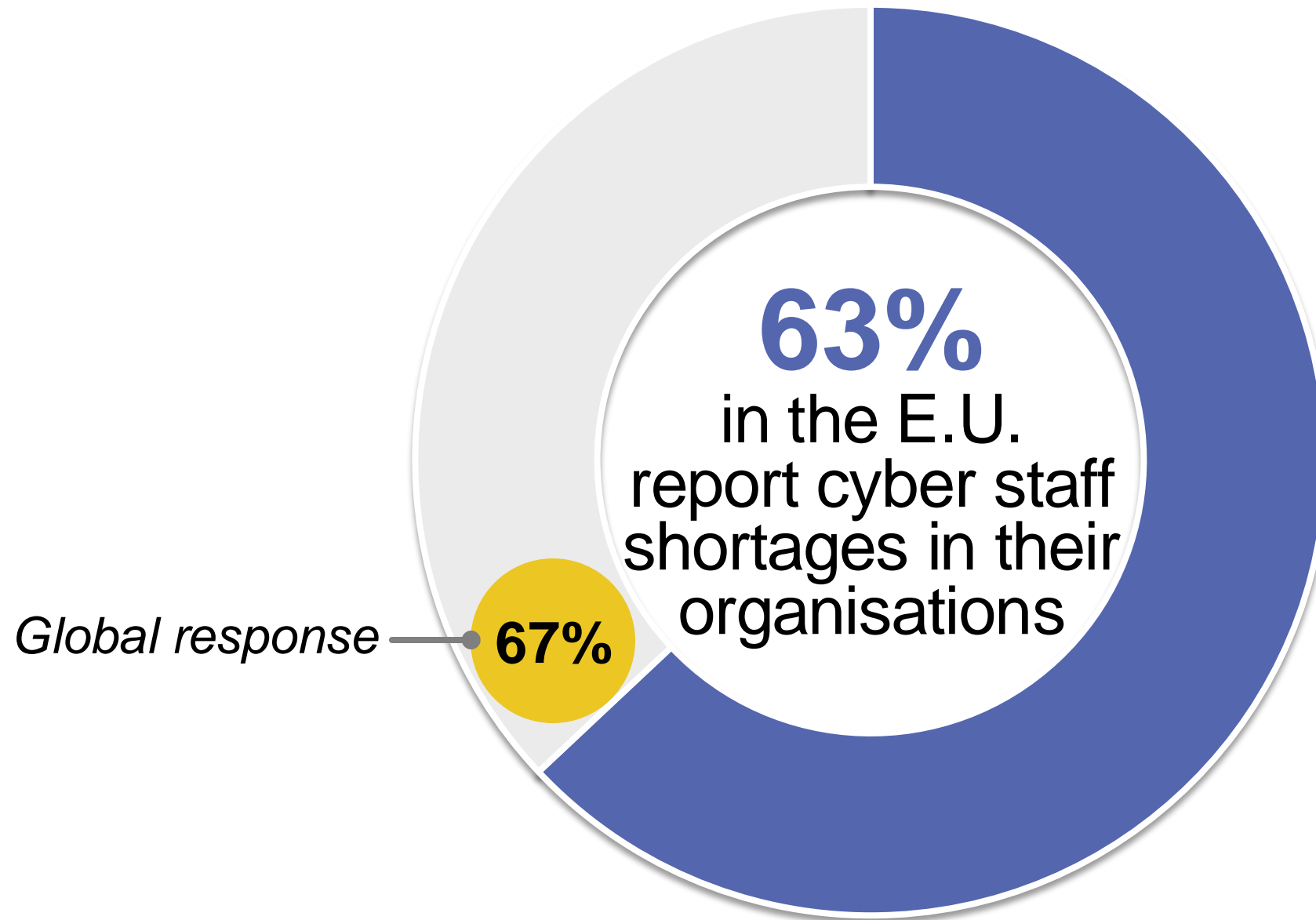
18% expect layoffs in 2025

25% predicted layoffs in 2024,
lower than what they
reported (20%)

Source: 2024 ISC2 Cybersecurity Workforce Study.

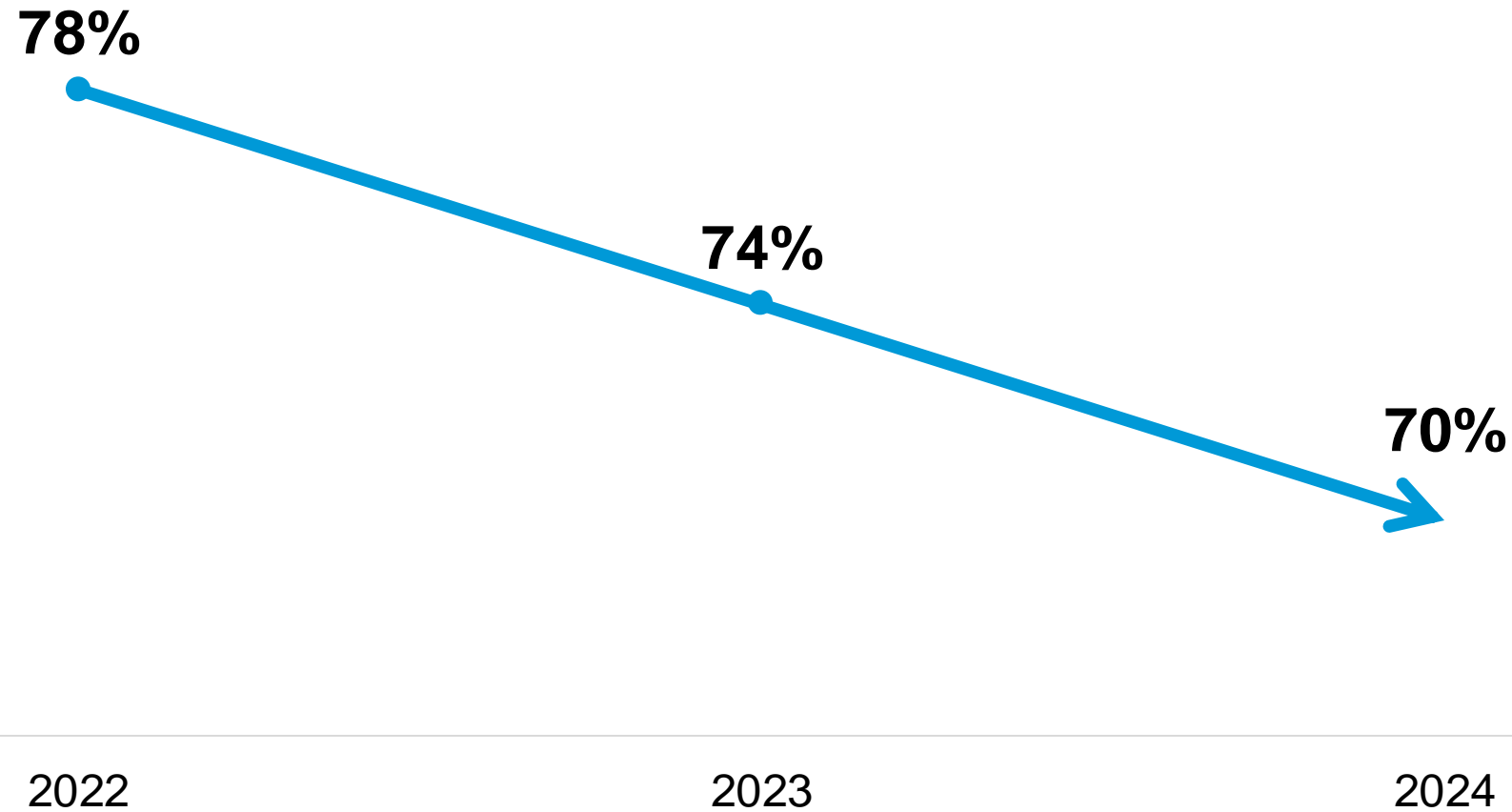


Focus on the E.U.



Source: 2024 ISC2 Cybersecurity Workforce Study.

Cybersecurity job satisfaction is declining in the E.U.



Source: 2024 ISC2 Cybersecurity Workforce Study.

Biggest challenges faced in the E.U. over the *past 12 months*

51%

46%

40%

37%

36%

32%

29%

24%

21%

19%

17%

**Keeping up with changing
regulatory requirements**

Worker/skill shortages

Risks of emerging technologies

Cyber attacks as precursors, tactics, or
retaliation in military conflicts

Adapting to risks from advances in
employee computing technologies

Misinformation/disinformation
sowing confusion about cyber risks

Insider threats

Addressing risks from an
employee's home environment

Keeping up with environmental
regulatory requirements

Addressing the impact of cyber insurance
premium increases on security practices

Tension between tenured
and junior security employees

Biggest challenges to come in the E.U. in the *next two years*

46%

46%

48%

42%

40%

32%

30%

20%

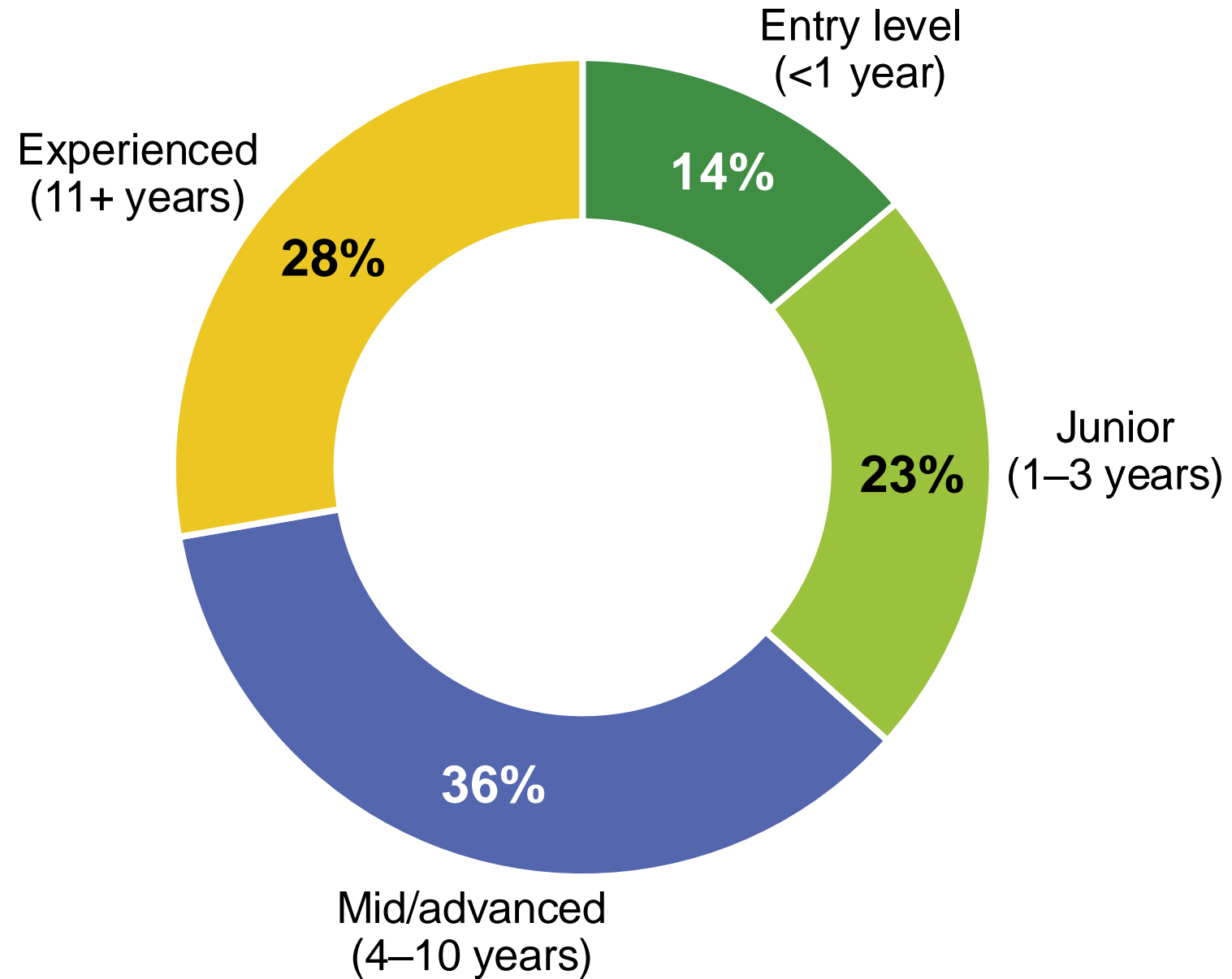
23%

18%

16%

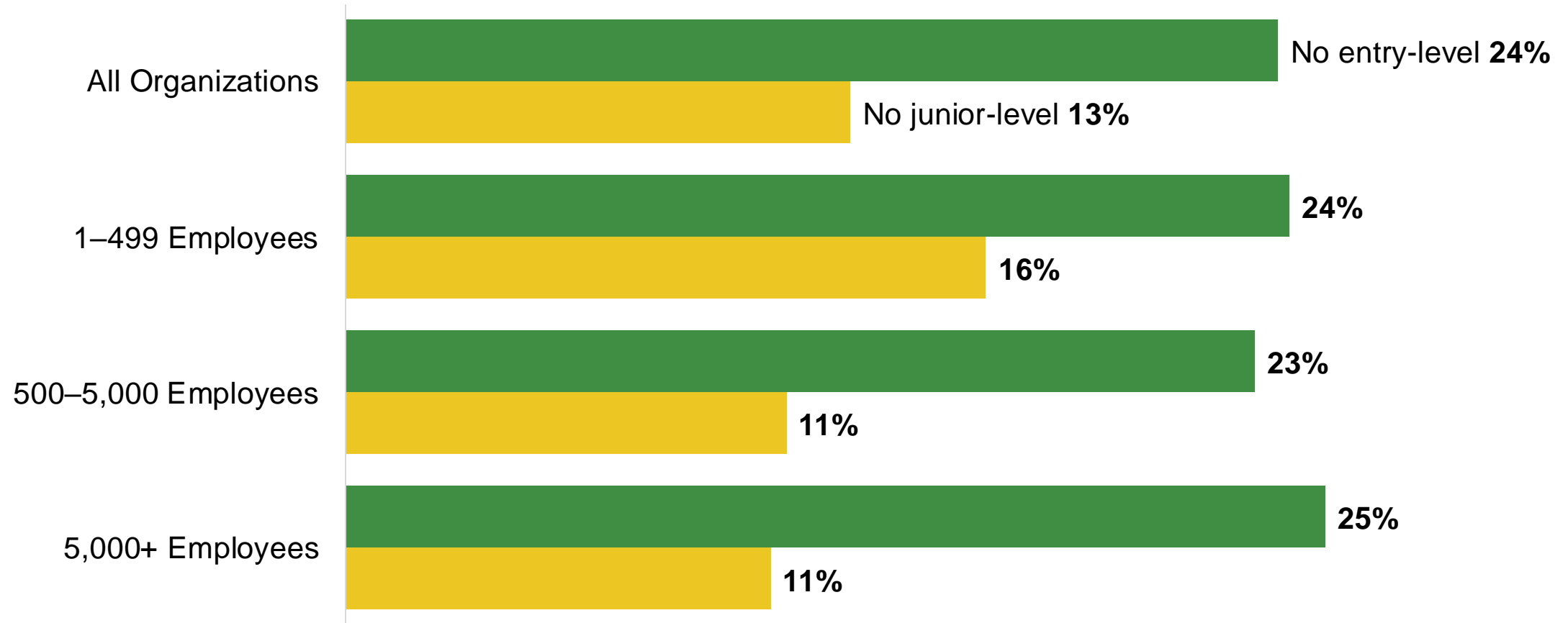
Source: 2024 ISC2 Cybersecurity Workforce Study.

Average cybersecurity team composition in the E.U. by level/years of experience



Source: 2024 ISC2 Cybersecurity Workforce Study.

Organizations in the E.U. with no entry- or junior-level professionals on security teams

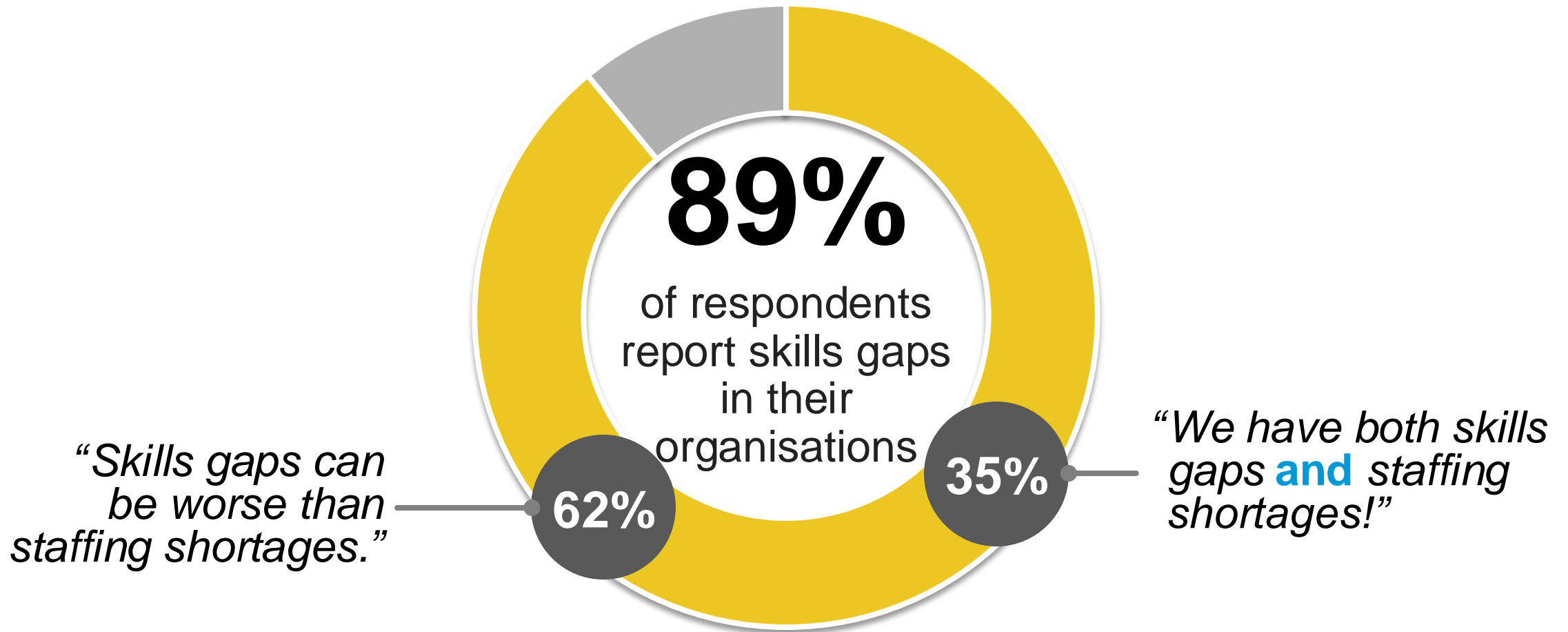


Source: 2024 ISC2 Cybersecurity Workforce Study.



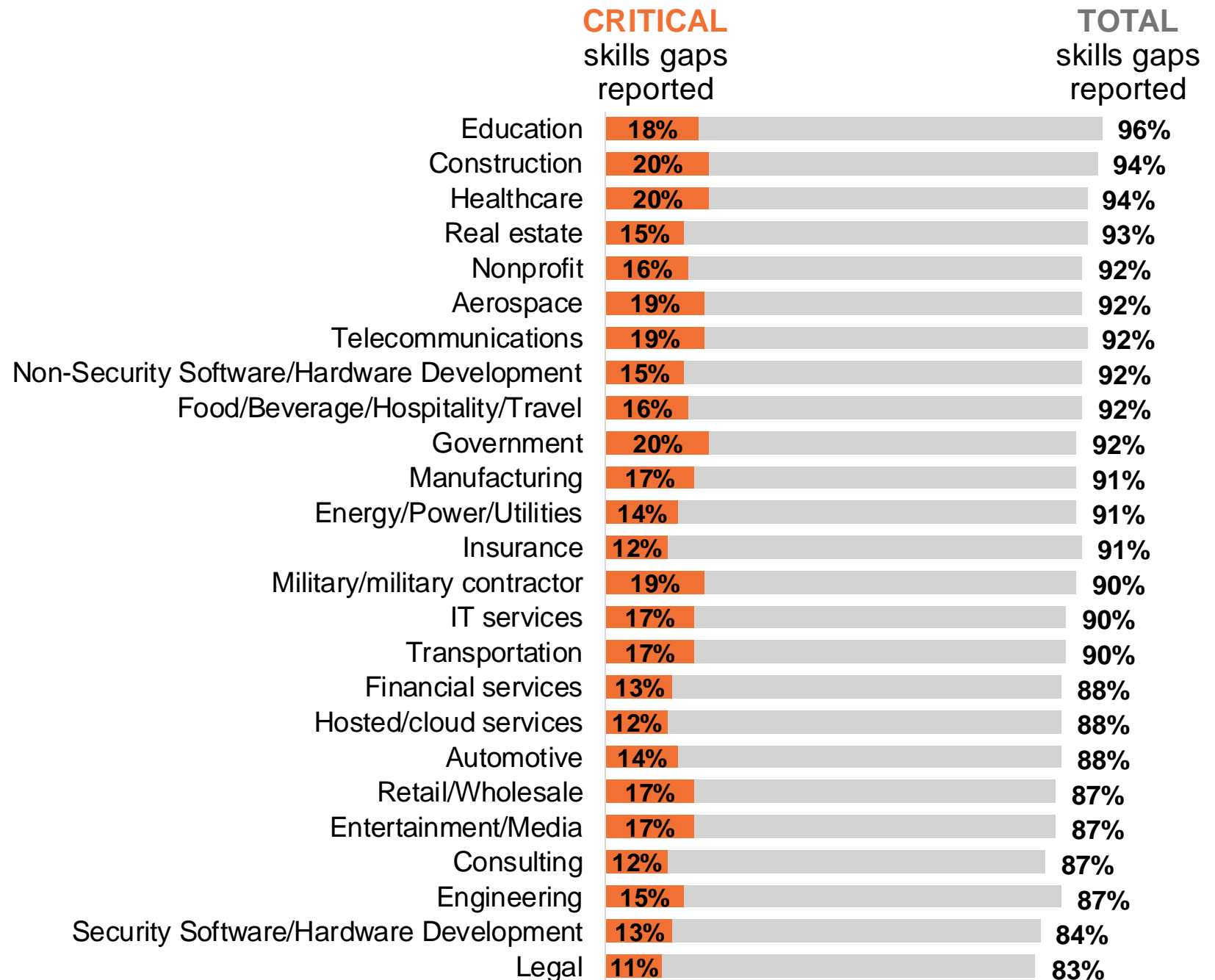
**Skills Gaps Are a
Growing Problem**

It's not only about people; the skills problem is quickly outpacing shortage concerns



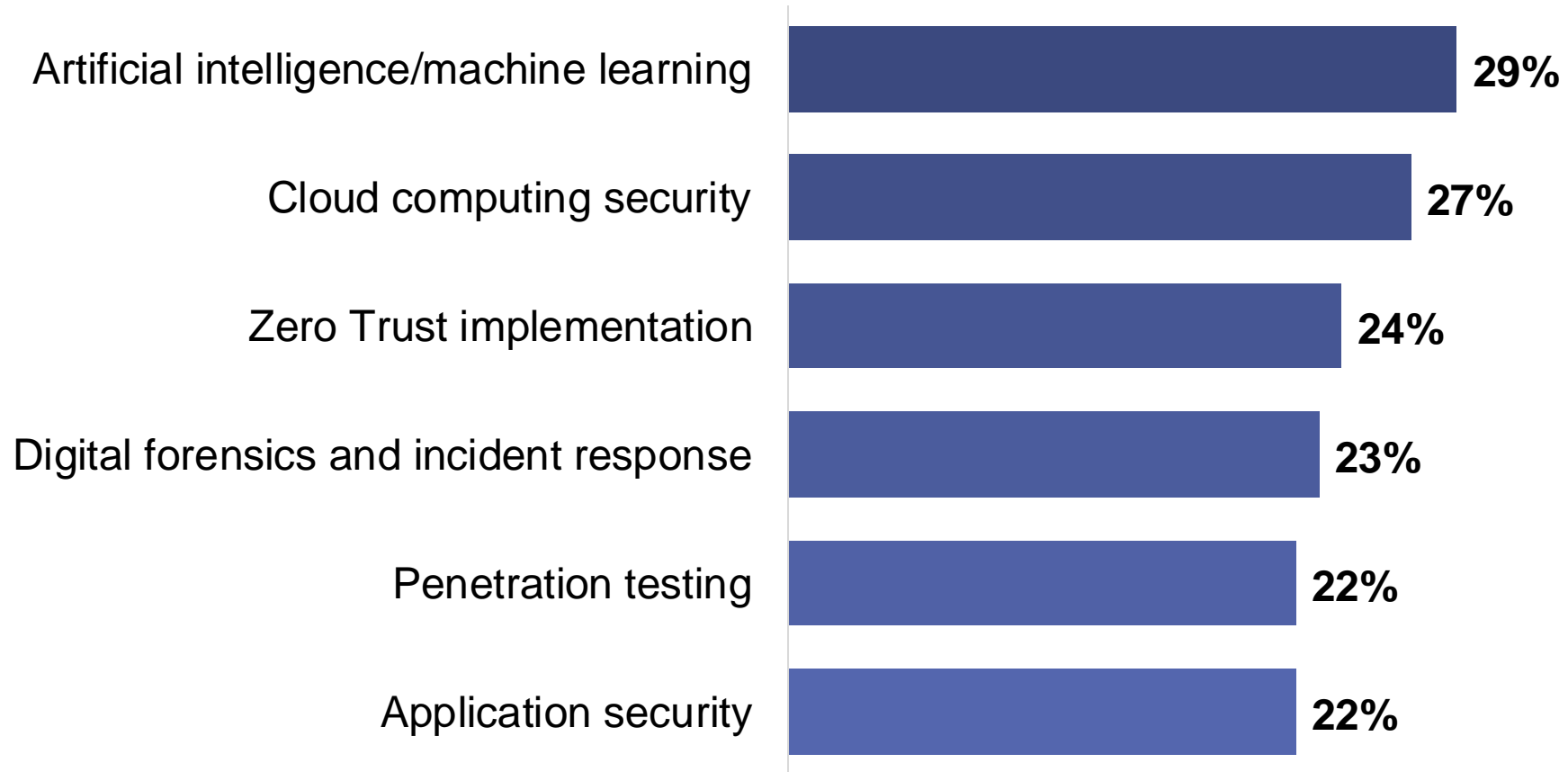
Source: 2024 ISC2 Cybersecurity Workforce Study.

Global skills gaps by industry



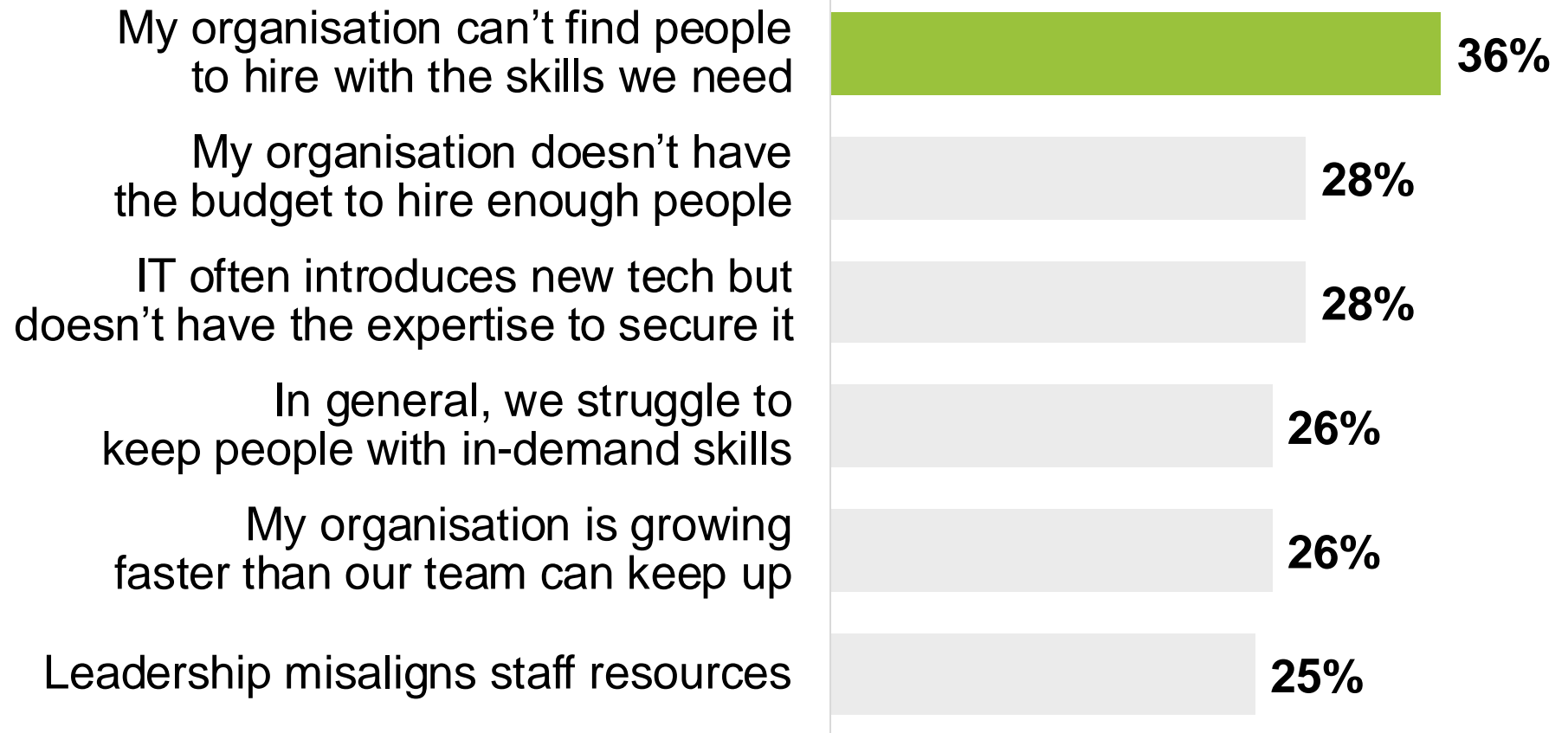
Source: 2024 ISC2 Cybersecurity Workforce Study.

Where are the technical skills gaps on security teams?



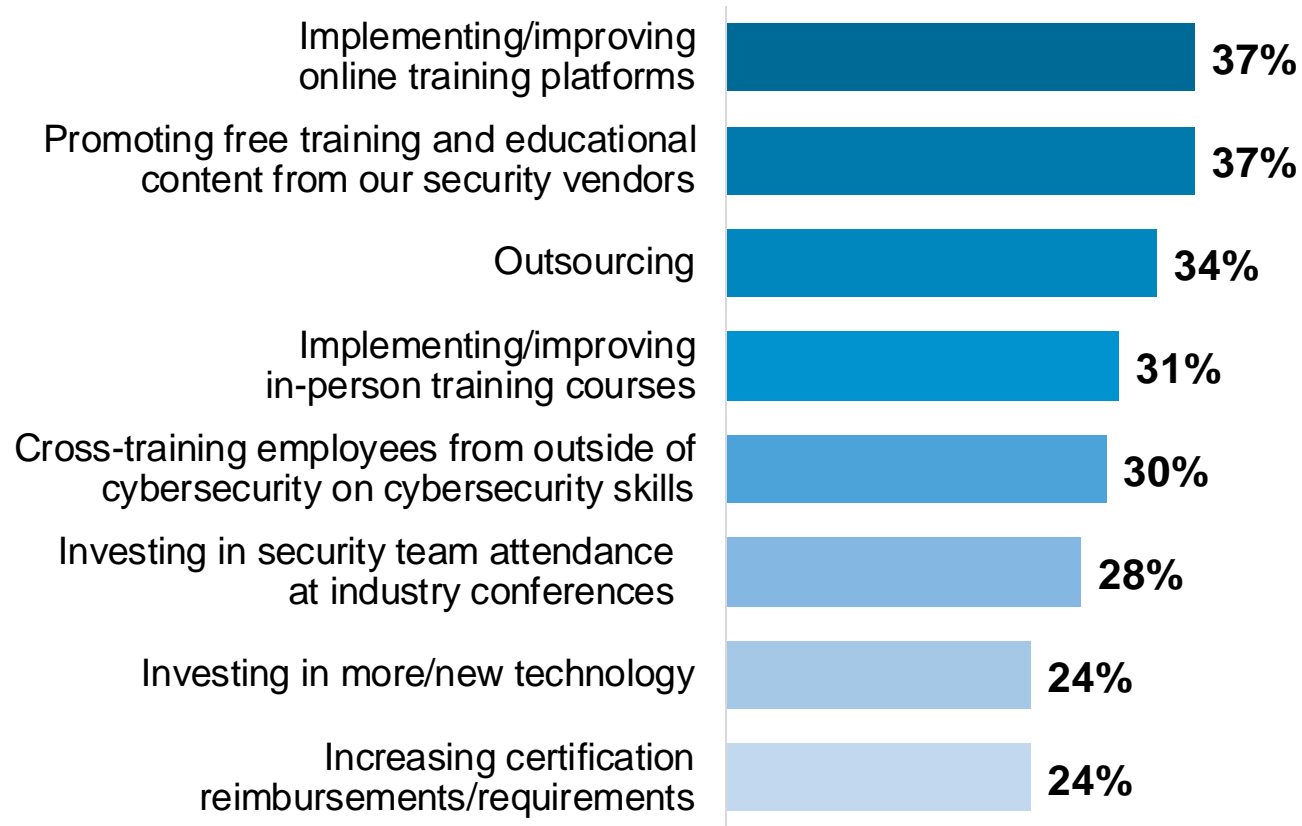
Source: 2024 ISC2 Cybersecurity Workforce Study.

Lack of qualified talent top reason for cybersecurity skills gaps in 2024



Source: 2024 ISC2 Cybersecurity Workforce Study.

Organisations are addressing skills gaps with training

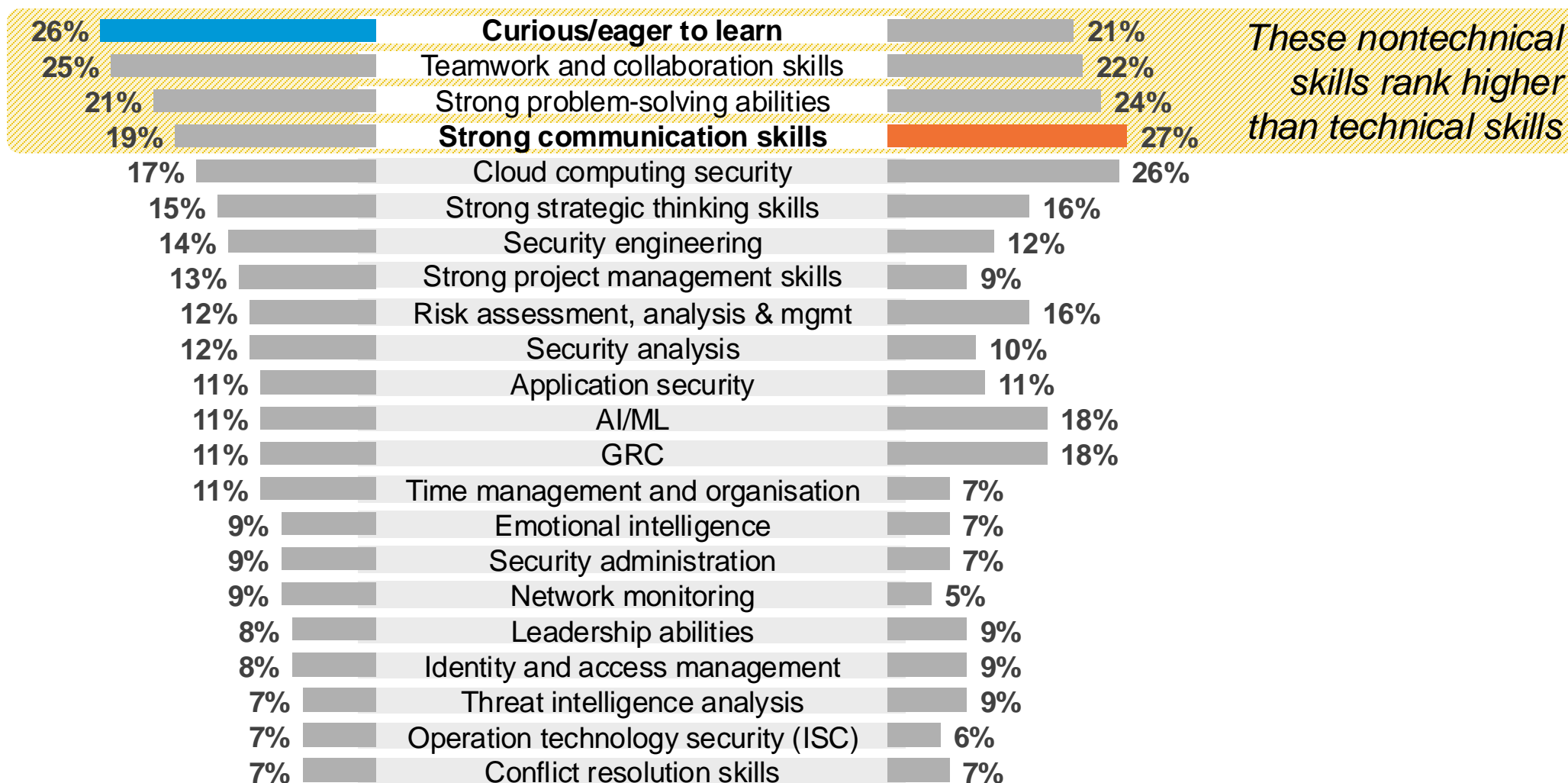


Source: 2024 ISC2 Cybersecurity Workforce Study.



The skills cybersecurity hiring managers are *looking for when hiring*

The skills cybersecurity professionals *think are in demand*

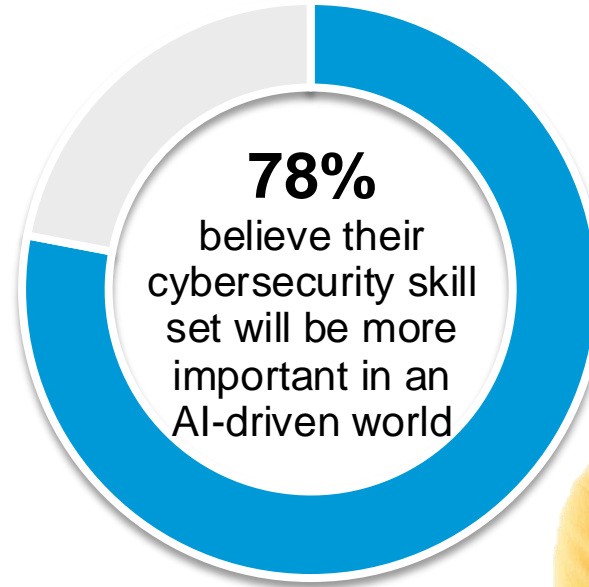
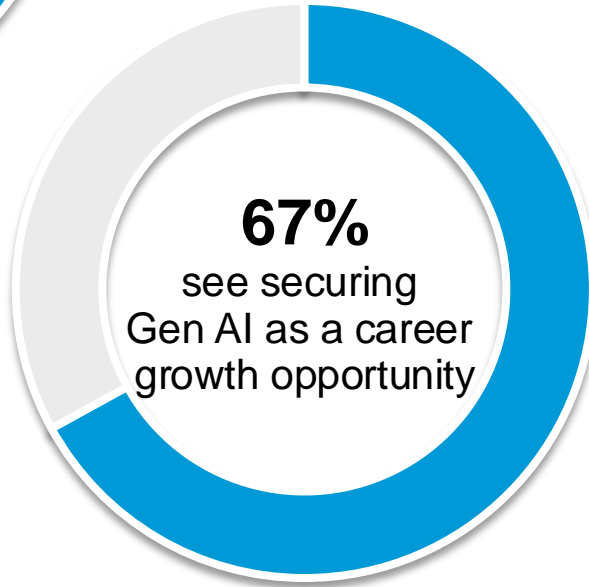
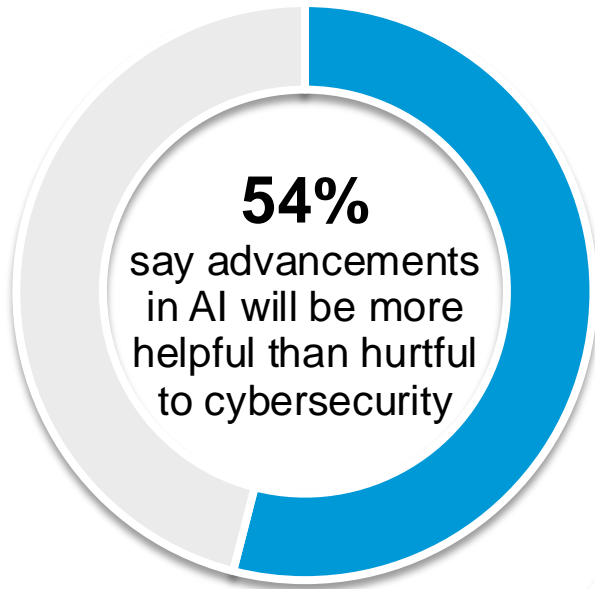


Source: 2024 ISC2 Cybersecurity Workforce Study.



Gen AI and the Cyber Profession

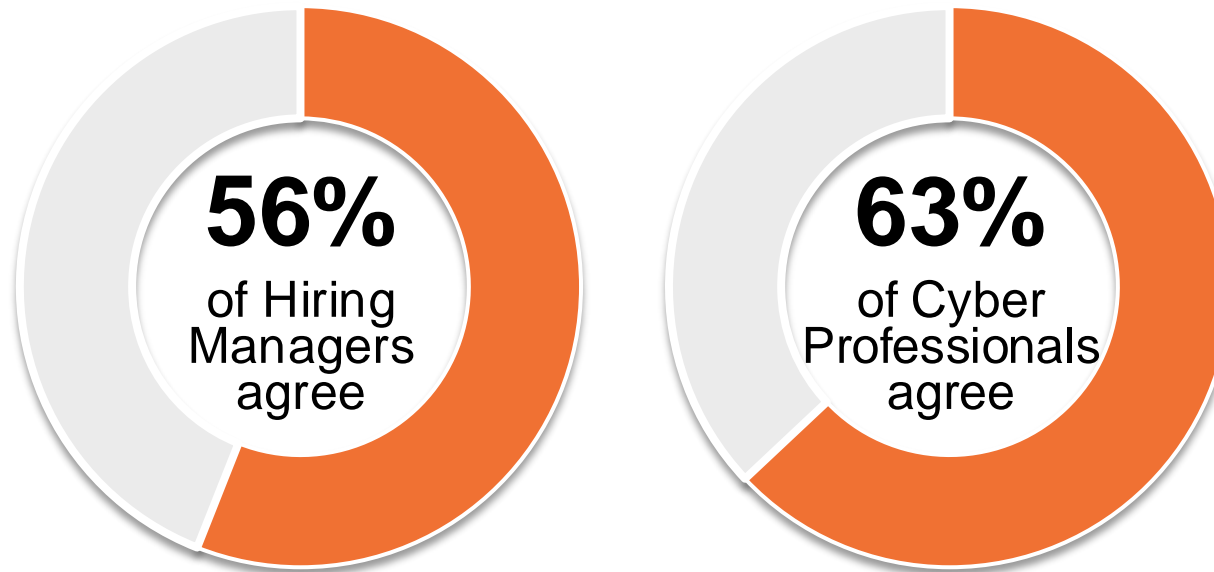
Cyber pros see the positives of AI



Source: 2024 ISC2 Cybersecurity Workforce Study.

Skills needed for AI/ML are somewhat unclear

“I don’t know enough about Gen AI to identify the skills I’ll need to succeed in an AI-driven world.”



Source: 2024 ISC2 Cybersecurity Workforce Study.



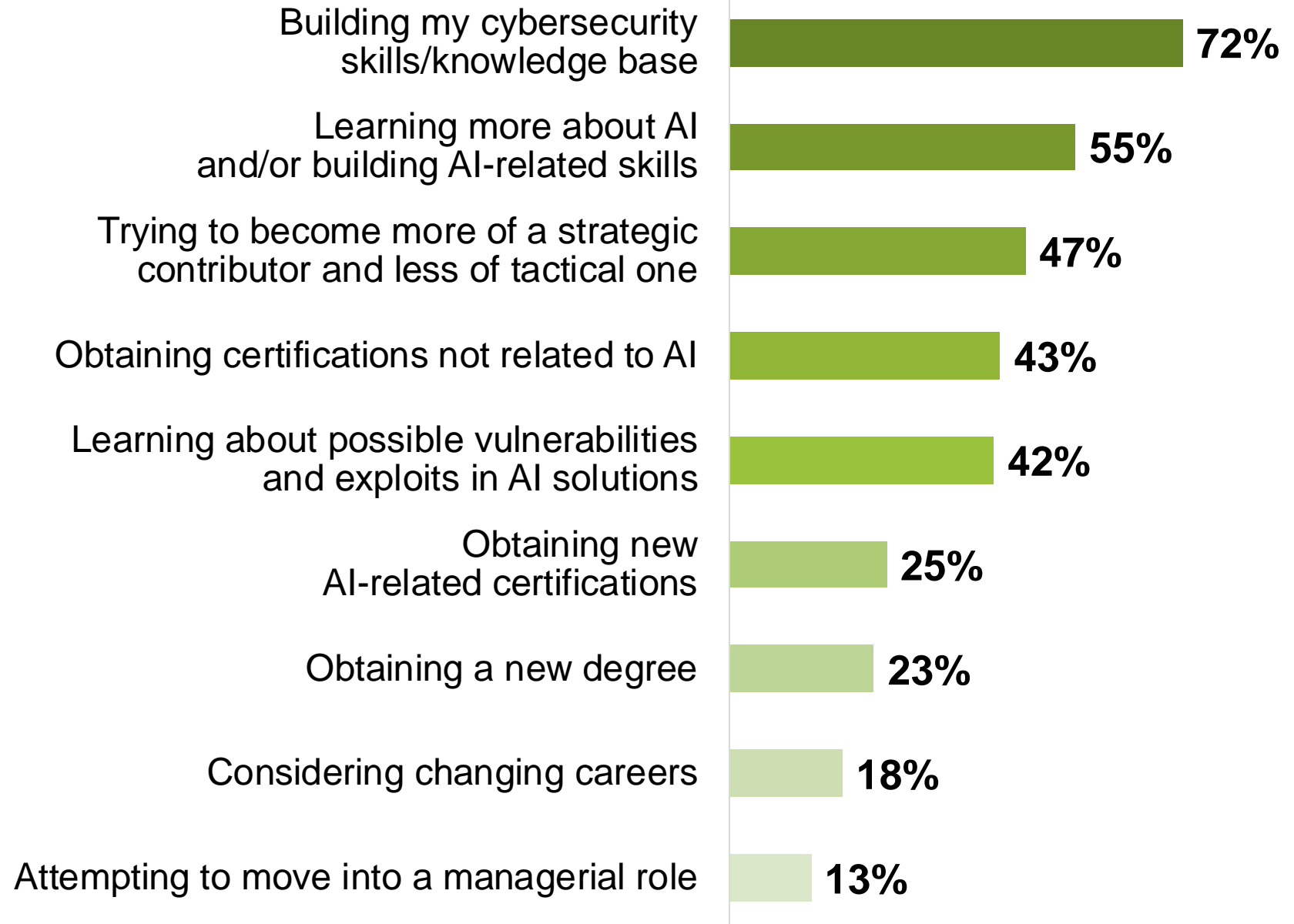
Source: 2024 ISC2 Cybersecurity Workforce Study.



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Cyber pros are future- proofing their skills for AI

About half (53%)
believe their skills will
be complemented,
not threatened, by AI

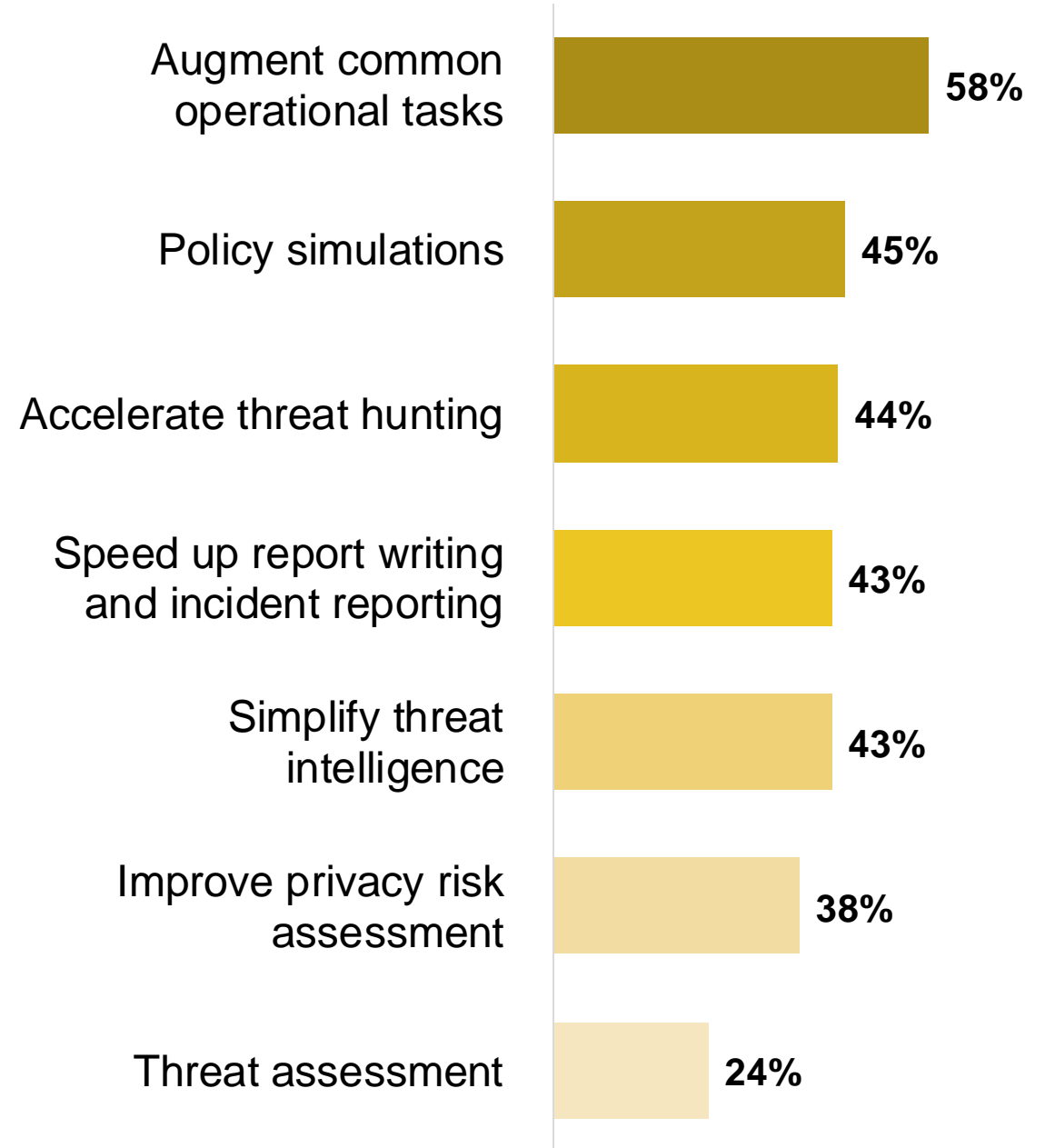


Source: 2024 ISC2 Cybersecurity Workforce Study.

How Gen AI is being used now

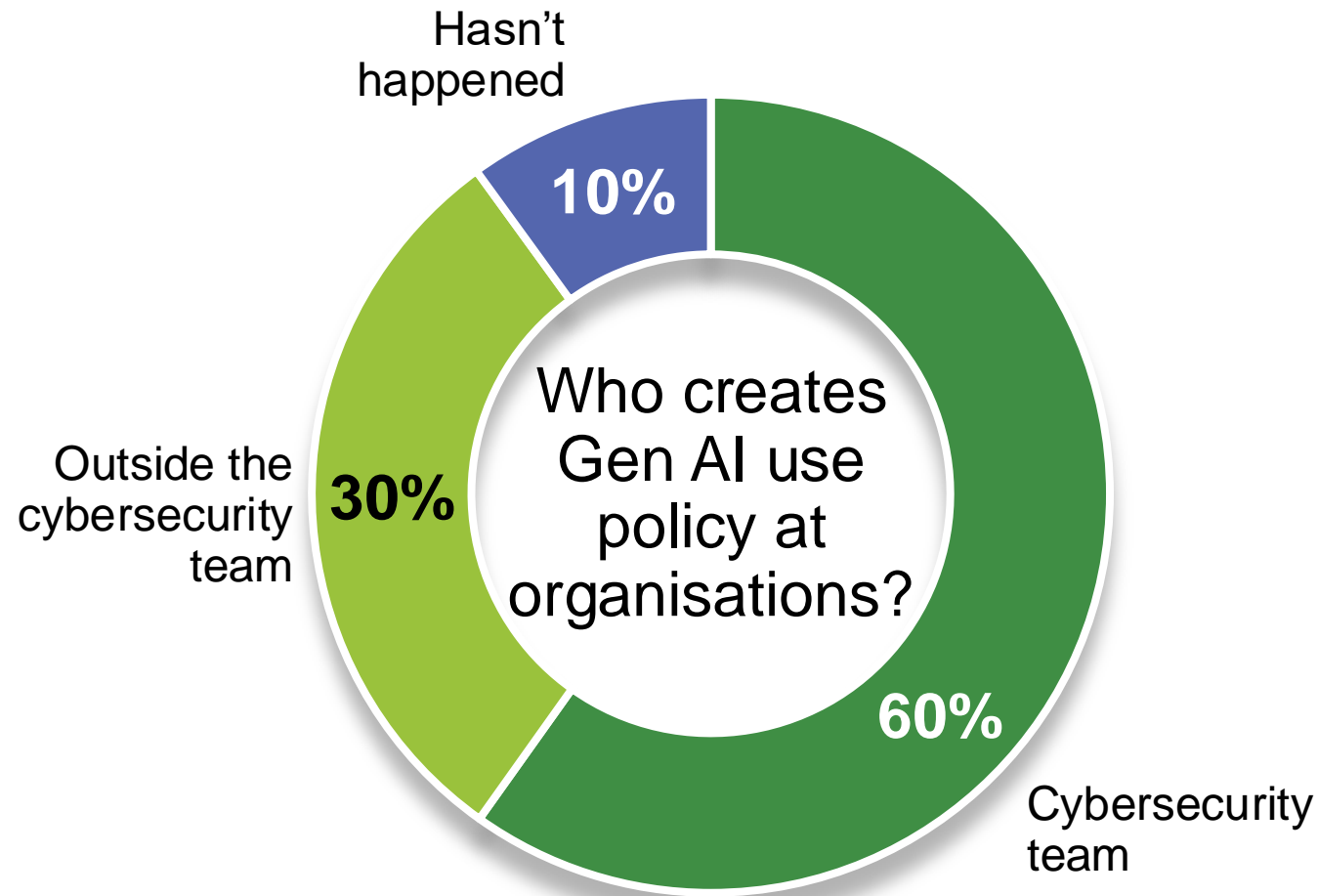
61% feel confident in their ability to utilize Gen AI **in their roles today**

And **71%** feel they will be able to effectively use Gen AI within their role in the next 2 years



Source: 2024 ISC2 Cybersecurity Workforce Study.

Gen AI is being integrated into organisations; most have use policies

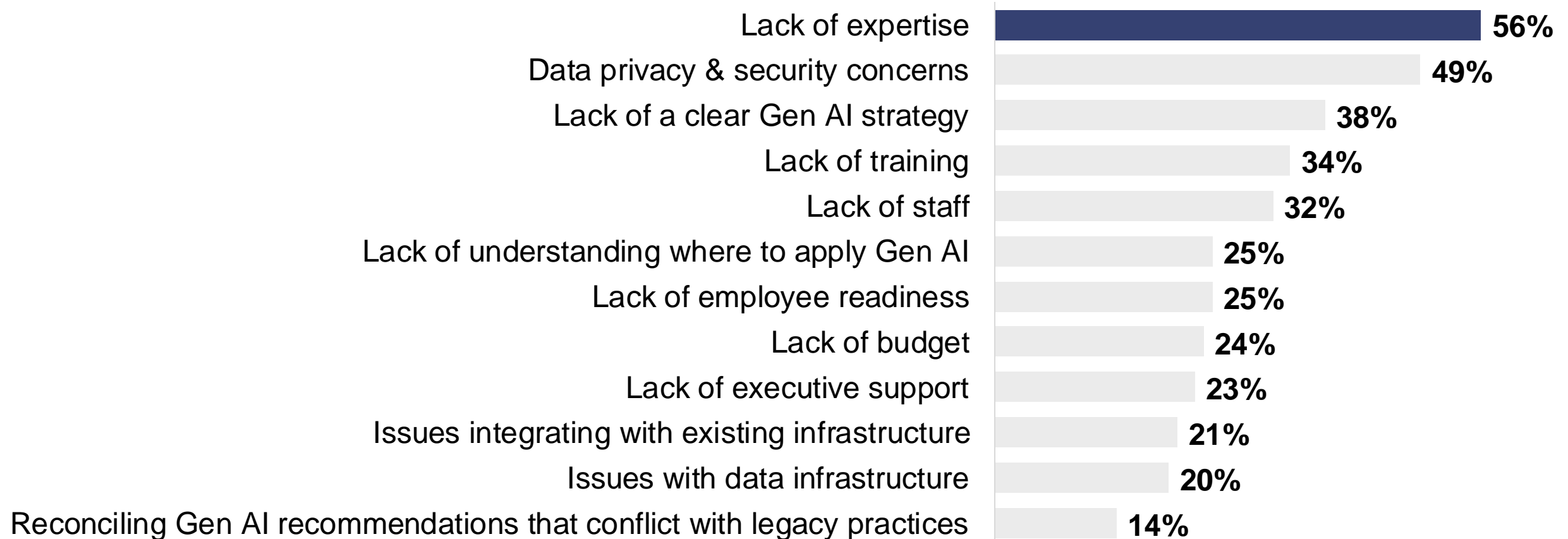


52% of pros say Gen AI is built into the cybersecurity tools they use

72% say their organisations have implemented Gen AI in other parts of the organisation

Source: 2024 ISC2 Cybersecurity Workforce Study.

Organisations face Gen AI adoption barriers



Source: 2024 ISC2 Cybersecurity Workforce Study.

Organisations are already seeing Gen AI benefits and expect more in the future



Source: 2024 ISC2 Cybersecurity Workforce Study.

2024 ISC2 Cybersecurity Workforce Study

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RESEARCH

2024 ISC2 Cybersecurity Workforce Study

ISC2.org/research



Key takeaways

The past year has been challenging for cybersecurity professionals.

If you have been feeling higher levels of stress in your roles, you are not alone.

Focus on learning skills, both technical and nontechnical, that are in demand.

Consider hiring entry- or junior-level professionals for your team. Hire for nontechnical attributes, train for technical skills.

Conversation starters

Why are cybersecurity teams seen as expendable despite increasing threats?

How do you keep your team focused on skill building, especially when budgets tighten?

How do you maintain team resilience when you're understaffed?

How involved is your team in securing AI and setting the rules for its use in your organisation?

The background of the slide is a solid green color. It is decorated with a complex, abstract pattern of light green geometric shapes. This pattern includes a grid of small squares in the upper left, a series of small circles in the upper right, and a vertical column of small squares on the right side. There are also various other geometric elements like lines and dots scattered throughout the background.

Thank You!

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