Dell Technologies Innovation Catalysts Study

6,600 respondents from organizations with 100+ employees, public and private sectors from across the following regions: North America, LATAM, EMEA, APJ and Greater China

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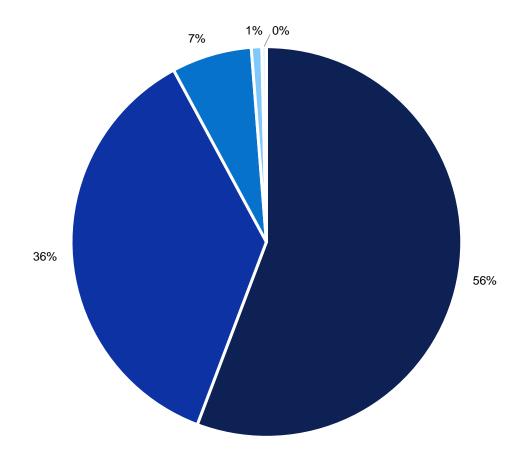
The state of innovation

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Innovation and business strategy

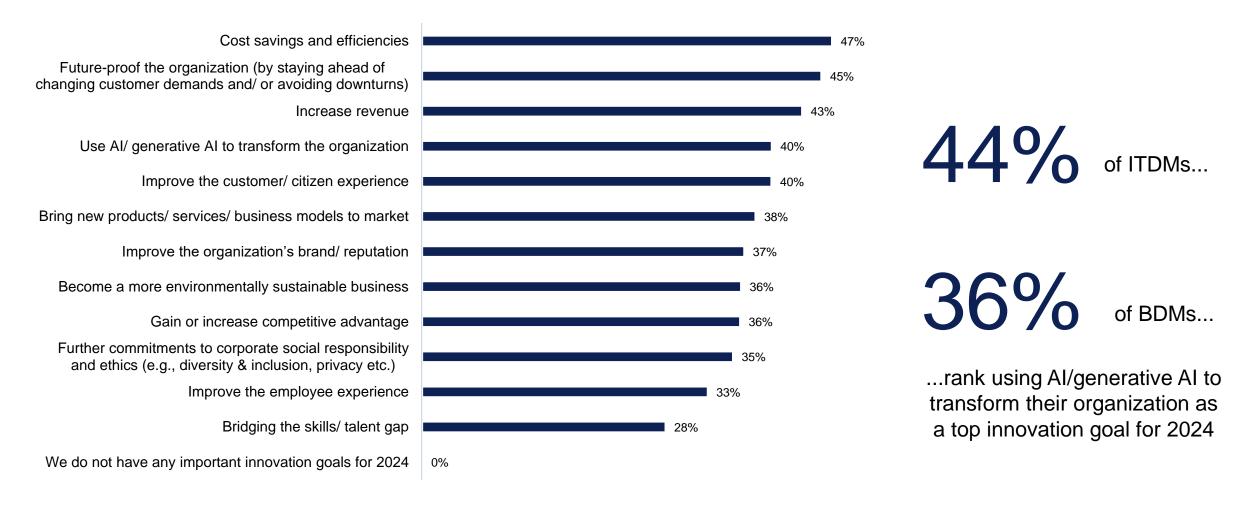
Q1. Which statement most aligns to your organization's business strategy? Split by respondent type



- Innovation is a key part of our business strategy and is unlocking benefits across our organization already (n=6,600)
- Innovation is a key part of our business strategy and will unlock benefits across our organization in the future (n=6,600)
- We recognize innovation is important to have within business strategy, but we don't currently have it included (n=6,600)
- Innovation is not a part of our business strategy, and we don't think it's important to be included (n=6,600)
- I am unfamiliar with my organization's business strategy (n=6,600)

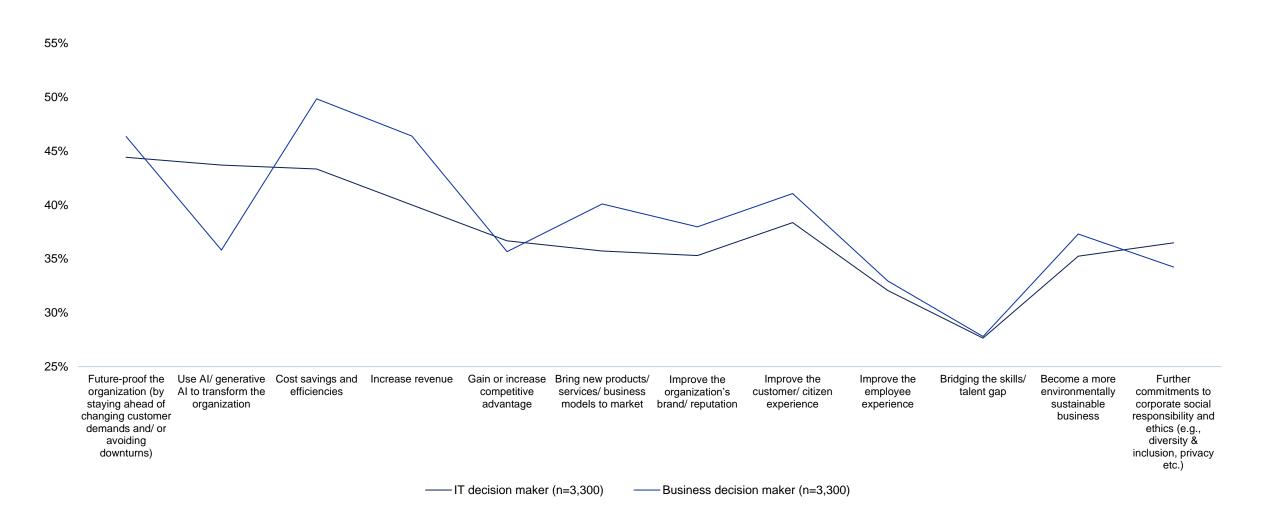
Important innovation goals

Q2. What are your organization's most important innovation goals for 2024? Combination of first to fifth



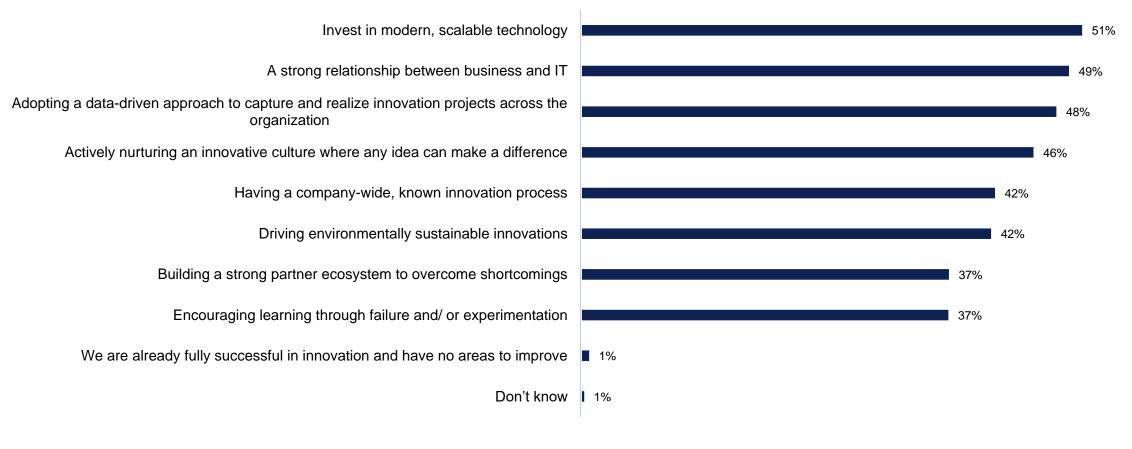
Top innovation goals for 2024 - ITDMs vs. BDMs

Q2. What are your organization's most important innovation goals for 2024? Combination of first to fifth



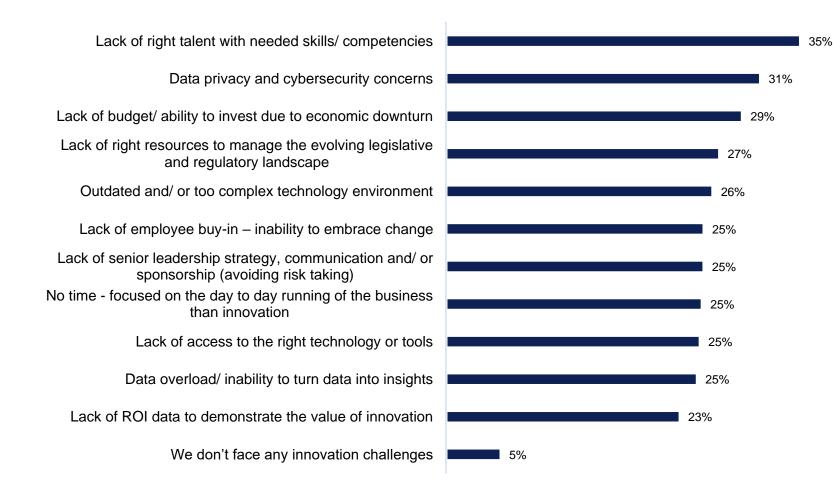
Improvements for successful innovation

Q3. Which of the following could your organization improve in to drive successful innovation?



Innovation challenges

Q4. What challenges does your organization currently face in driving innovation successfully?



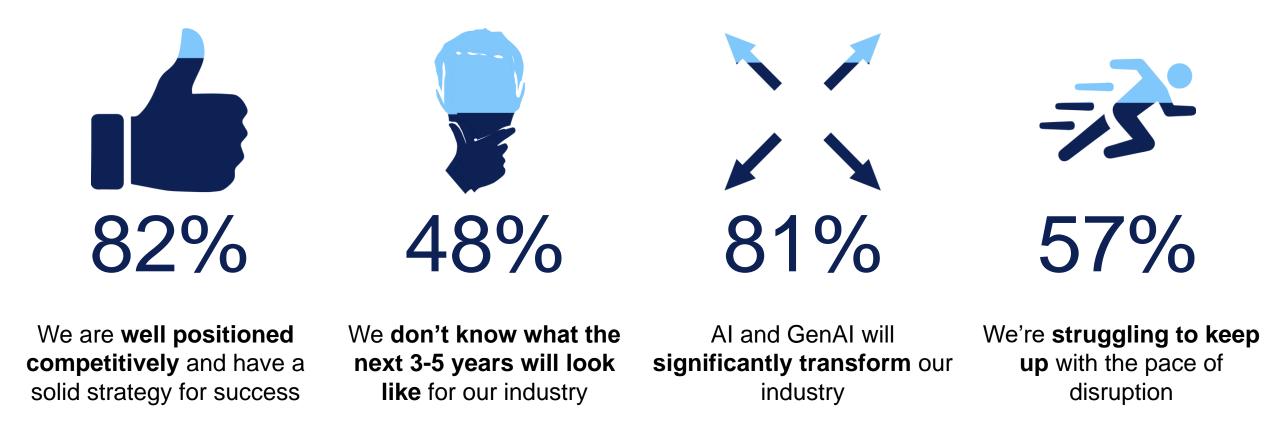


94%

of organizations face innovation challenges

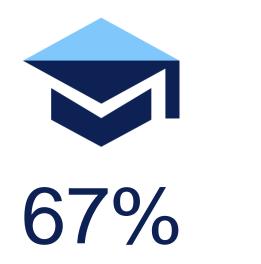
Looking to the future

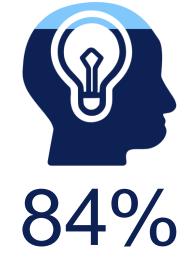
Q5. Respondents who agree with the below statements



Looking to the future

Q5. Respondents who agree with the below statements





63%

There is a **shortage of talent** required for innovation in our industry In the future, the ability to gain new knowledge will be **valued higher** than the knowledge you already have We will struggle to keep up with environmental sustainability and broader ESG initiatives/ standards

Innovation skills, challenges and peer advice



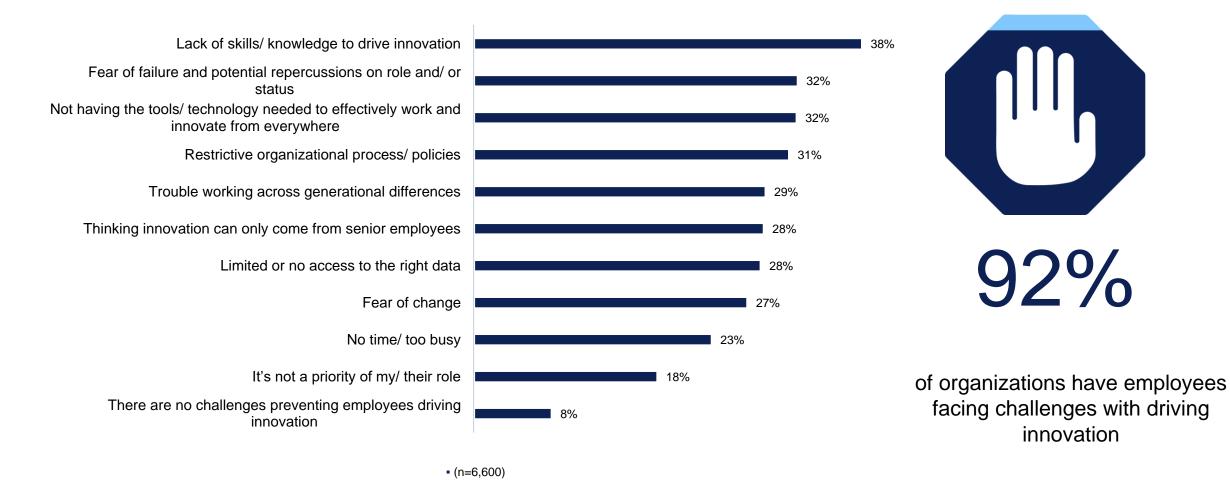
Skills that drive innovation

Q6. Which employee skills/ competencies are most valuable for driving innovation in the next five years? Combination of first to fifth - showing top 5

Top 5 most valuable employee skills/ competencies			
#1	Learning agility/ desire – easily learn new things, work with new tools (generalist)	53%	
#2	Al fluency (understand when, where and how to use Al tools safely and responsibly)	53%	
#3	Creativity/ creative thinking	49%	
#4	Subject matter expertise (specialist, with experience and deep knowledge)	48%	
#5	Logic, critical thinking and/ or complex decision-making	47%	

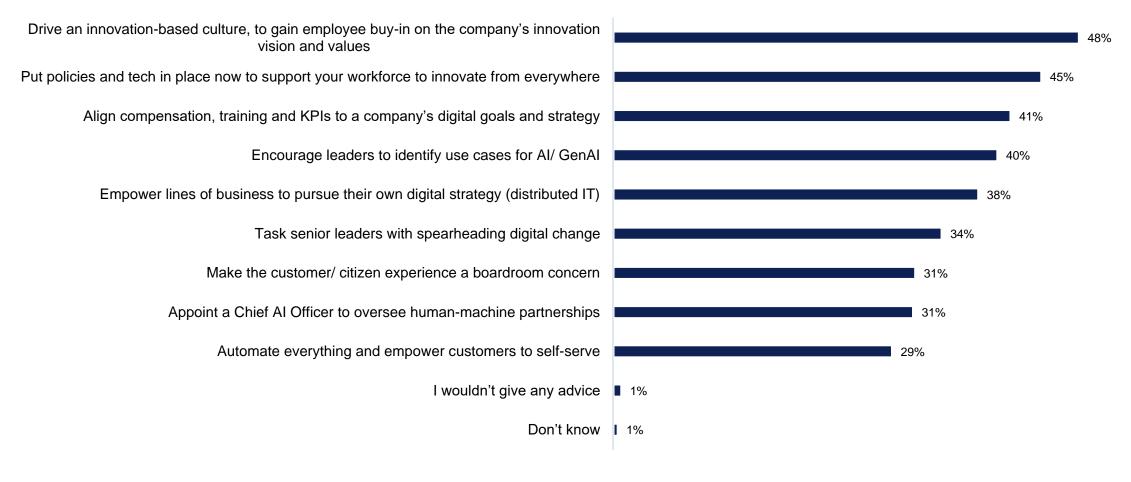
Innovation challenges

Q7. What challenges prevent you personally and/ or employees in your organization from driving innovation?



Innovation advice

Q8. What advice would you give to peers to accelerate innovation in their organization?

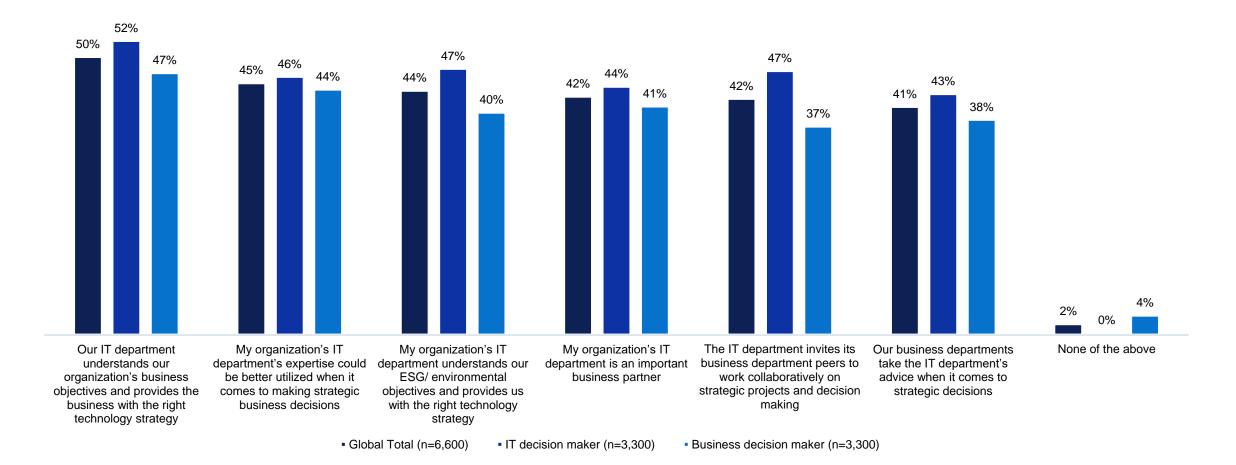


IT as a strategic partner



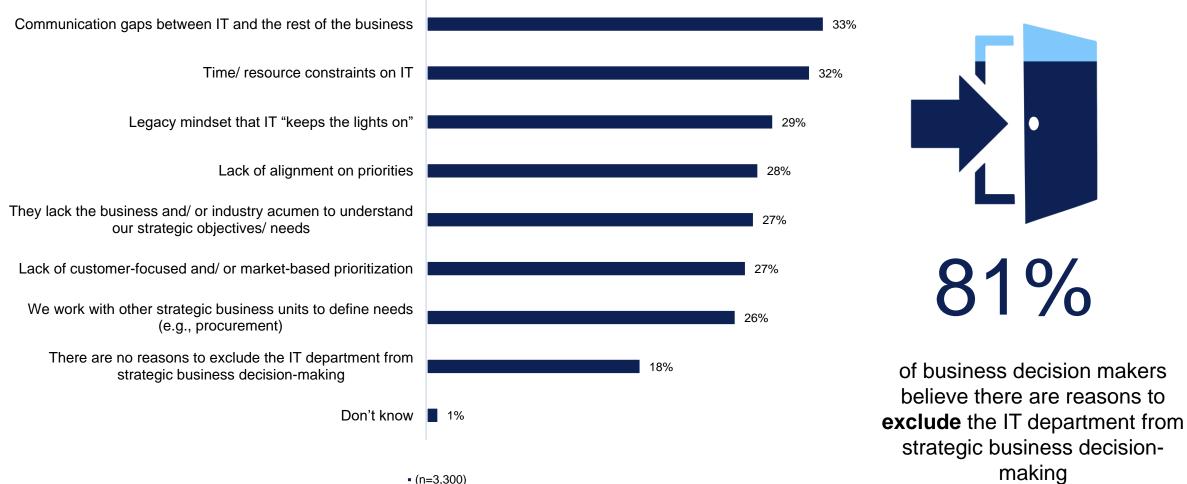
IT's strategic understanding

Q9. Which of the following statements do you agree with?



Excluding the IT department

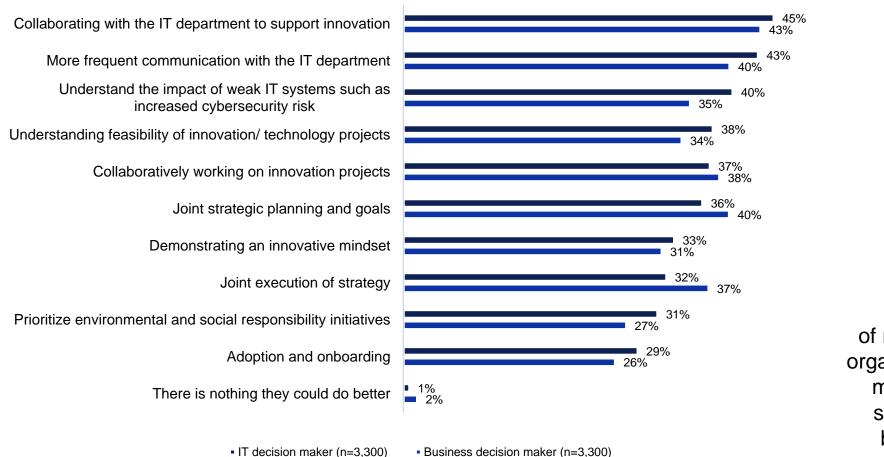
Q10. What reasons, if any, would there be to exclude the IT department from strategic business decision-making?



Only asked to business decision makers

Strengthening relationships

Q11. What do you think that your organization's business decision makers could do better to strengthen the relationship between IT and business departments?





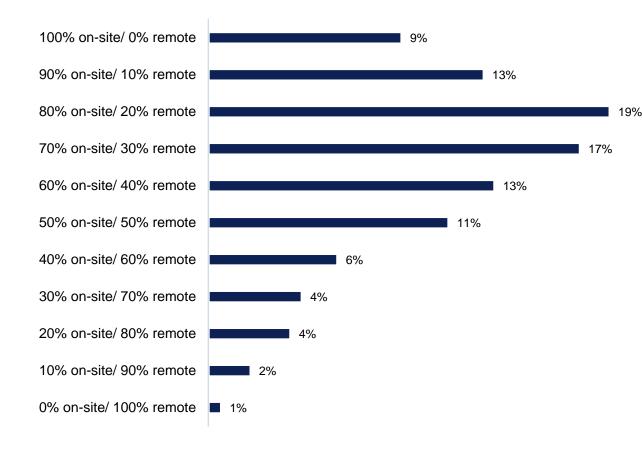
of respondents think that their organization's business decision makers could take steps to strengthen the relationship between IT and business departments

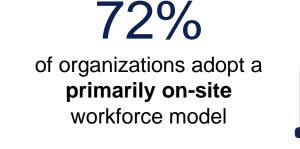
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Technology as an innovation catalyst

Workforce model

Q12. Which of the following best matches your organization's current workforce model?







17% of organizations adopt a primarily remote

workforce model



Technological improvements

Q13. Respondents who agree with the below statements

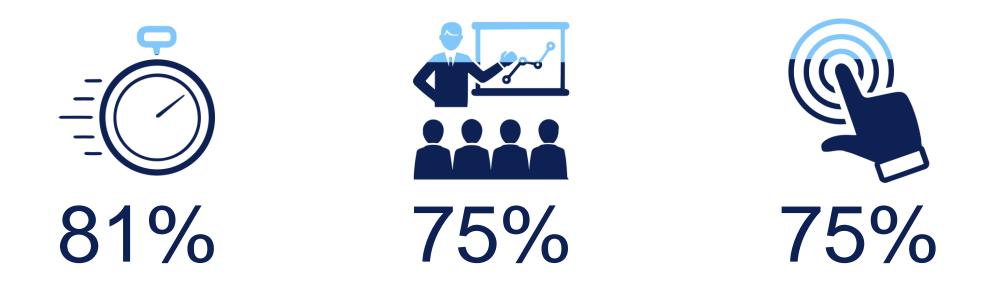


We are providing the **necessary** technology to our entire workforce based on individual needs, workloads, and preferences

We need to update our office and meeting spaces for improved collaboration and productivity We are providing **intelligent** technology (AI optimization software) to improve the work experience We are providing **collaborative** technologies such as monitors, cameras, headsets, or premium subscriptions to collaboration software

Technological improvements

Q13. Respondents who agree with the below statements



We need to make improvements to ensure employees can access or share data faster We are **training or upskilling** our employees **to use new technology** such as Generative AI (GenAI)

We use **as-a-Service models** (predictable payments and flexible scalability) to provide the latest technology to our workforce

Technological improvements

Q13. Respondents who agree with the below statements





We ensure **secure access** to all employees wherever they are while mitigating threats We are prioritizing the use of **sustainable** products and solutions



We provide a **simplified and autonomous process** for delivering equipment, supporting users, and responsibly retiring technology

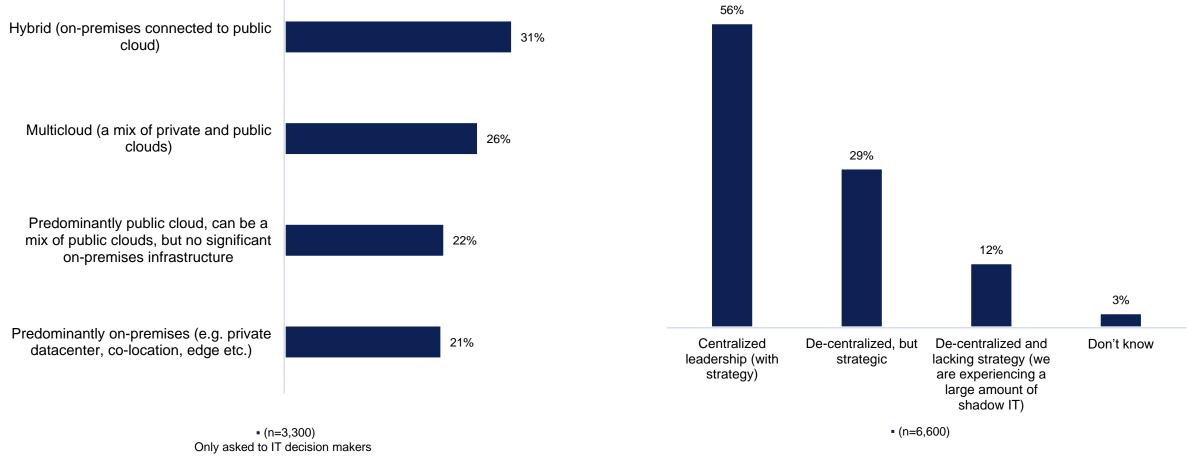
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Multicloud

IT infrastructure and advanced solutions

Q14. Which of the following best describes your organization's predominant IT infrastructure?

Q15. Which of the following best describes your organization's current approach for using advanced technology (e.g., multicloud and/ or generative AI)?

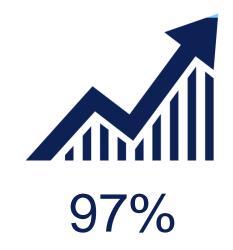


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Optimizing multicloud environments

Q16. Thinking about optimizing your organization's multicloud environments, which are the most important areas for improvement? - showing top five most common answers

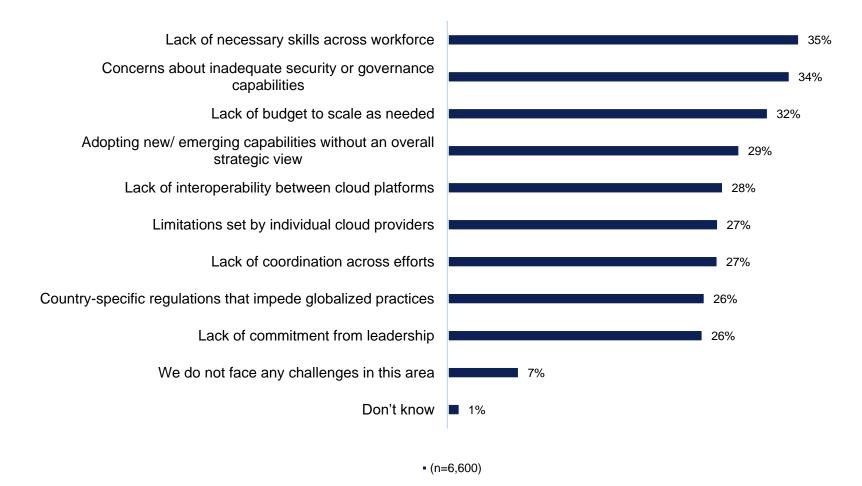
Top 5 most important areas of improvement			
#1	Simplifying IT environments	40%	
#2	Increasing security posture and minimize risks	40%	
#3	Increasing operational agility	38%	
#4	Improving environmental sustainability (i.e. minimize IT carbon footprint/ lower energy costs etc.)	38%	
#5	Driving cost efficiencies	37%	



of respondents believe their organization could improve their IT infrastructure

Challenges of a multicloud strategy

Q17. What are the biggest challenges your organization faces when building a multicloud strategy to support innovation?





91%

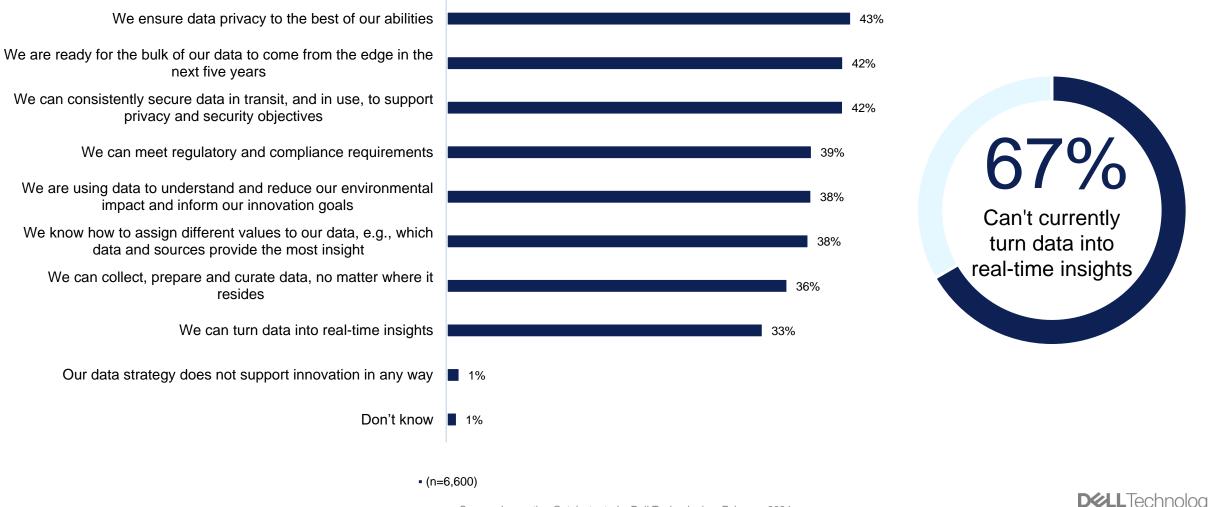
of organizations face challenges when building a multicloud strategy to support innovation

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Supporting innovation

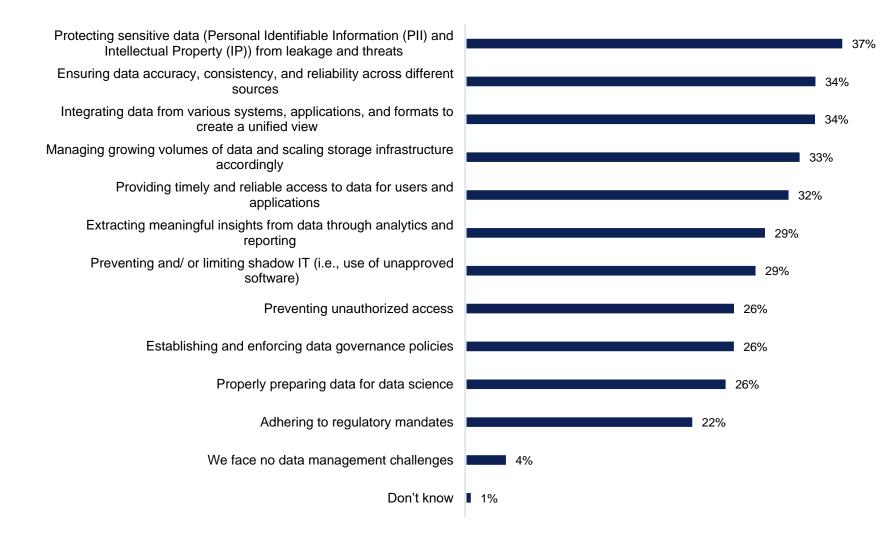
Q18. Thinking about your organization's data/ data strategy, what can your organization currently do to support innovation?



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Data management challenges

Q19. What are your organization's biggest data management challenges?





of organizations face data management challenges



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Current trends

Q20. Respondents who agree with the below statements



We emphasize buying technologies/ applications with security built into them We utilize solutions to help us reduce the attack surface of our IT ecosystem We utilize **automated tools** to detect and respond to cyber threats





Current trends

Q20. Respondents who agree with the below statements



We can **recover** from a cyber attack and/ or leakage thanks to an Incident Response Plan (IRP) We are aware of **Zero Trust** and are pursing it as a strategy We fear Generative AI will introduce **new** security and privacy challenges



Current trends

Q20. Respondents who agree with the below statements

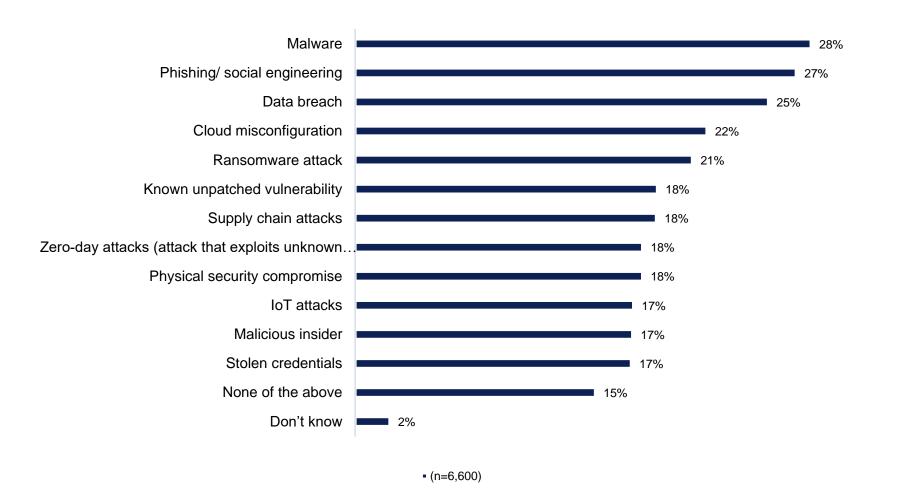


We believe some **employees go around IT security guidelines/ practices** because they delay efficiency/ productivity Our security operations mostly consist of **patch management**/ security updates Insider threats are a big concern



Security attacks

Q21. Which of the following security attacks have impacted your organization in the past 12 months?





83%

of organizations have been **impacted by security attacks** in the past 12 months

Importance of Zero Trust

Q22. To the best of your knowledge, which of your organization's stakeholders consider a Zero Trust architecture to be most important? Combination of first to third - showing top 3

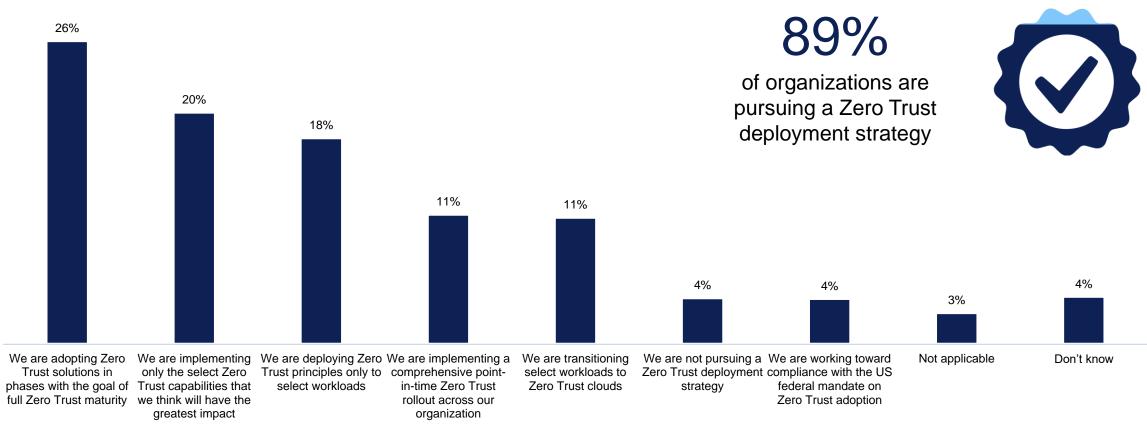
Top 3 stakeholders					
#1	Our IT department	64%			
#2	Our board level employees	48%			
#3	Employees outside of IT	45%			

• (n=3,300) Only asked to IT decision makers



Zero Trust strategy

Q23. When thinking about your organization's Zero Trust plans, how would you best describe your deployment strategy?



• (n=6,600)

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Sustainability

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Environmental sustainability priorities

Q24. What are your organization's most important environmental sustainability priorities? Combination of first to fifth - showing top 5

Top 5 environmental sustainability priorities			
#1	Procuring/ utilizing goods that are more sustainable (e.g. uses recycled materials, recyclable packaging, etc.)	45%	
#2	Improving energy efficiency	45%	
#3	Using technology/ AI/ ML/ Data Science to inform and optimize sustainability efforts	43%	
#4	Improving Environmental, Social and Governance (ESG) reporting and compliance	42%	
#5	Minimizing waste and contributing to the circular economy	41%	

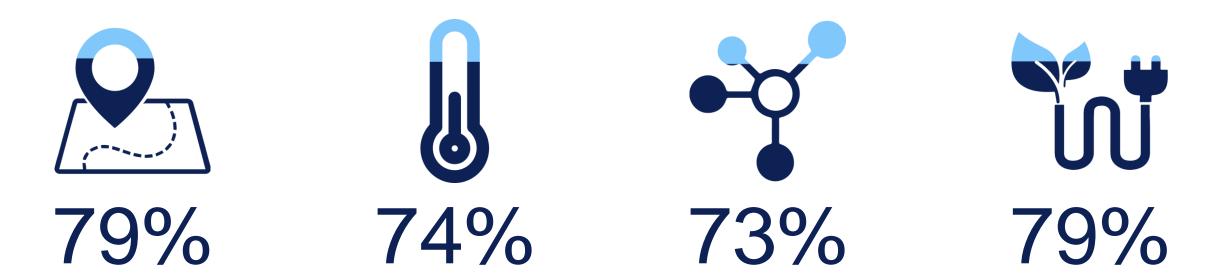


of organizations have environmental sustainability priorities



Steps towards sustainability

Q25. Respondents who agree with the below statements



We have a clear sustainability roadmap for our company with defined goals to reduce our carbon footprint

We use alternative cooling solutions to help us reduce energy use in the data center (e.g. Air cooling, liquid cooling) We are actively **moving our Al** inferencing to the edge to become more energy efficient (e.g., smart buildings)

We are experimenting with asa-Service solutions to manage our IT environment more efficiently to reduce our energy costs and carbon footprint

(n=6,600)

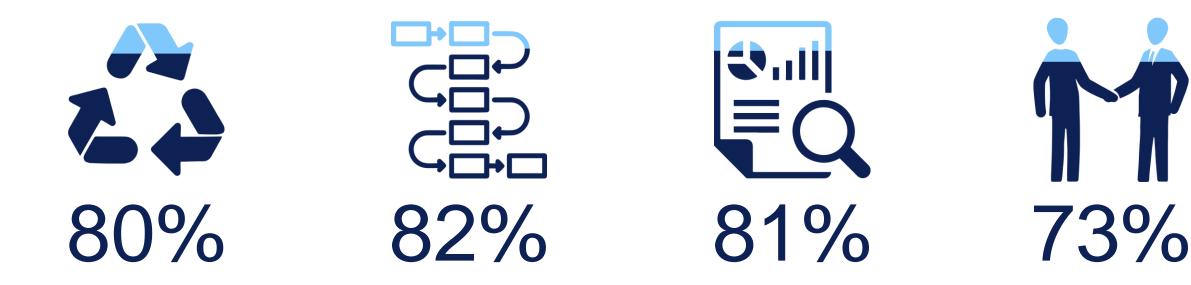
(n=3,300) Only asked to IT decision makers (n=6,600)

• (n=3,300) Only asked to IT decision makers

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Steps towards sustainability

Q25. Respondents who agree with the below statements



We have **defined and timebound plans in place** to properly retire or recycle end-oflife IT equipment

We are investing in **products with extended lifecycles** (e.g. repairability, upgradability, durability) My technology vendor needs to have transparent and clear sustainability goals and demonstrate accountability for the emissions generated across their value chain We need the **help of a thirdparty partner** to achieve our sustainability goals

Steps towards sustainability

Q25. Respondents who agree with the below statements

79%

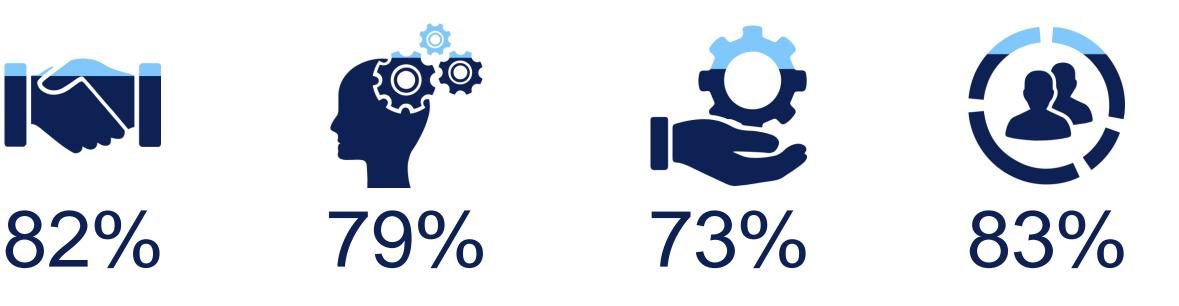
I understand all the environmental regulations my organization needs to comply with



Generative AI, the innovation accelerator

Current perceptions

Q26. Respondents who agree with the below statements



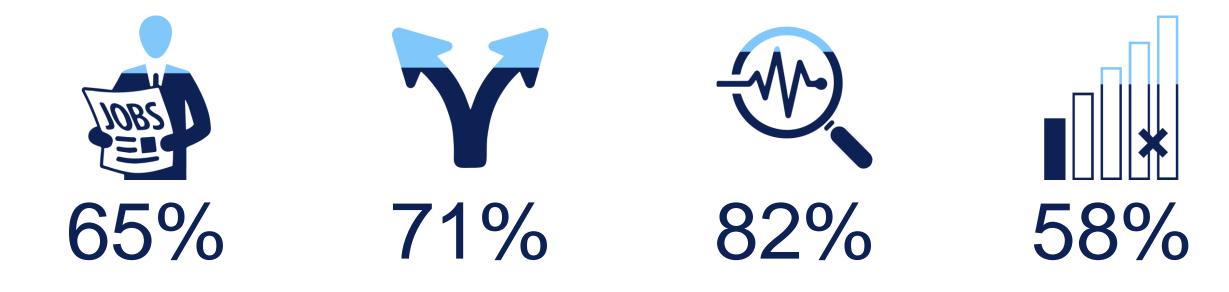
There will be greater human and machine partnership within five years

Machines won't replace us; they will augment our capabilities and human productivity will reach new heights

Our data and intellectual property are **too valuable** to be placed in a GenAl tool where a third party may have access Al will be an essential part of security tools and their ability to catch bad actors and unauthorized activity

Current perceptions

Q26. Respondents who agree with the below statements



The jobs and skills needed in 2030 haven't been invented yet

GenAl tools will increase the digital divide

Customers/ citizens will demand transparency on the use of GenAl Using AI will **compromise** our environmental sustainability efforts





Current perceptions

Q26. Respondents who agree with the below statements



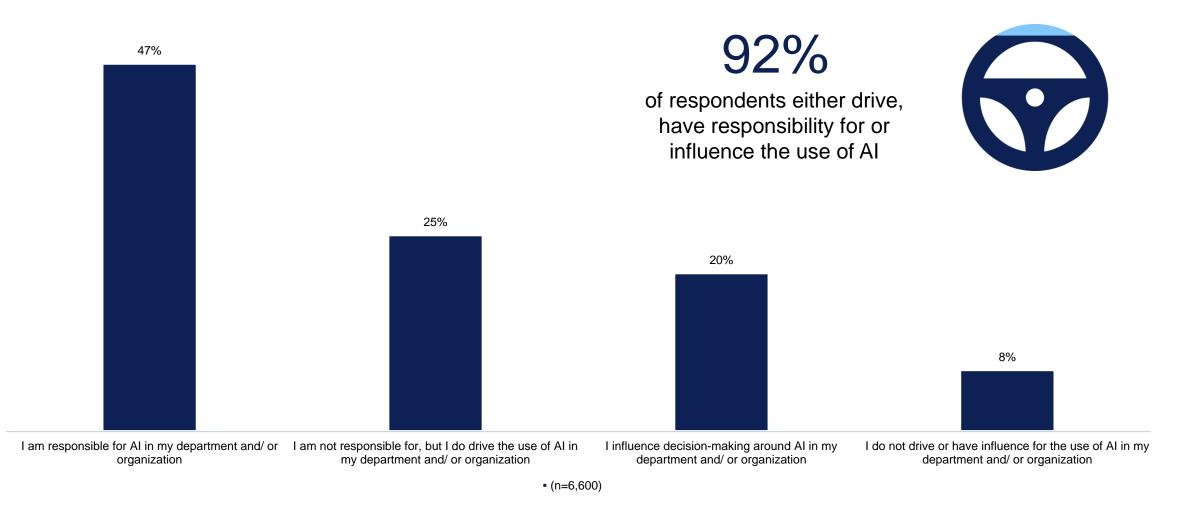
Receiving AI regulations **right now** is important to maximize the potential of AI for generations to come



Concentration of AI strength in too few hands will create competitive challenges and market imbalances

Influence over AI

Q27. What is your role when it comes to driving or influencing AI within your department and organization?

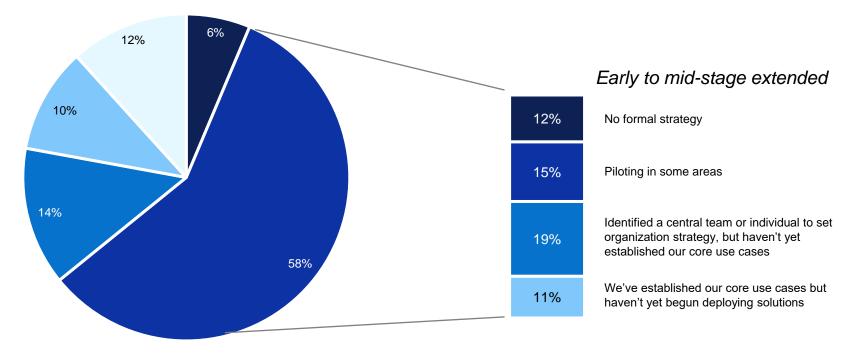


GenAl strategy, use cases and considerations



GenAl journey status

Q28. Which of the following best describes where your organization is at in its GenAl journey?



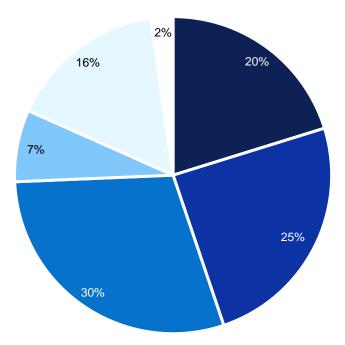
Organizational policy has banned GenAl use (n=6,600)

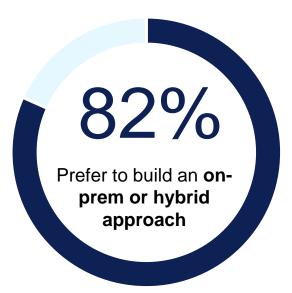
- Early to mid-stage (see column chart on the right) (n=6,600)
- We've begun the process of deploying solutions for GenAI, but haven't begun engaging our data science teams to build/ retrain internal models (n=6,600)
- We're engaging the data science team to build or retrain our own models, but haven't yet rolled them out to the broader organization (n=6,600)
- We're well-established with GenAI solutions, rolling out tools to employees and training them appropriately (n=6,600)



Use and procurement of GenAl

Q29. When thinking about your organization's use/ procurement of GenAI, which would be its preference?





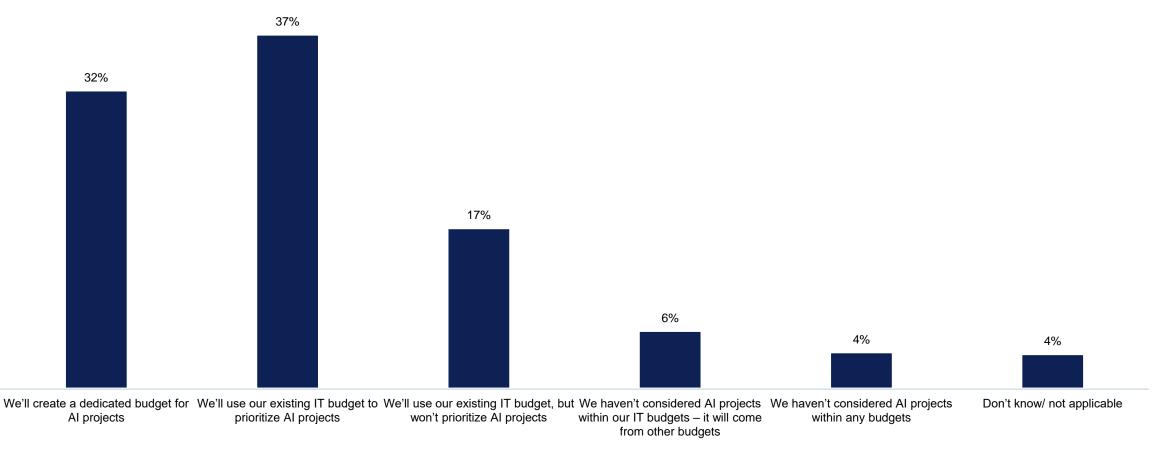
Prefer to purchase a public cloud model (n=3,300)

- Prefer to use open-source or other models on-premises for inferencing (n=3,300)
- Prefer to retrain an existing model using our data in our own environment (i.e., colo, edge, on-premises data center) (n=3,300)
- We would rather build our own model from scratch (n=3,300)
- We will classify our data and use a hybrid approach to model building based on use cases and sensitivity (n=3,300)
- Don't know (n=3,300)

Only asked to IT decision makers

Budget for AI investment

Q30. Which of the following best describes how your organization's AI investments will impact your overall IT spending over the next 12 months?

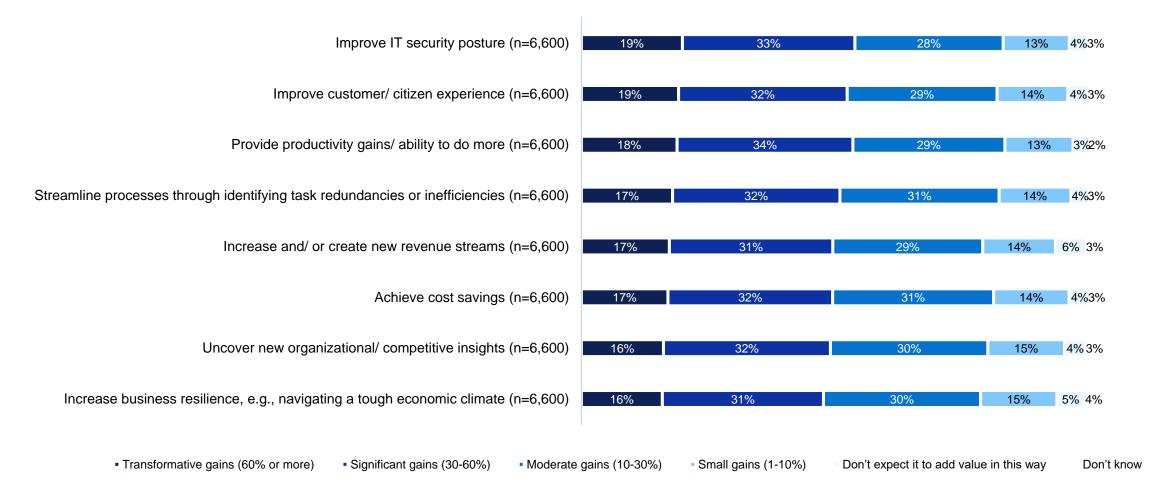


• (n=6,600)

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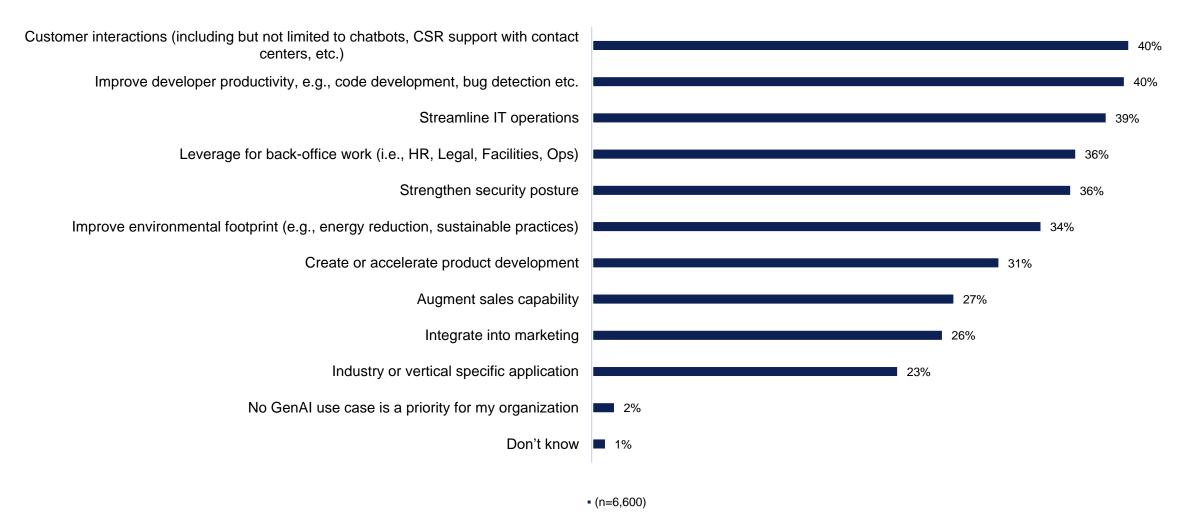
GenAl's value potential

Q31. In your opinion, how much potential does GenAI have to deliver value for your organization across the following business outcomes?



GenAl use cases

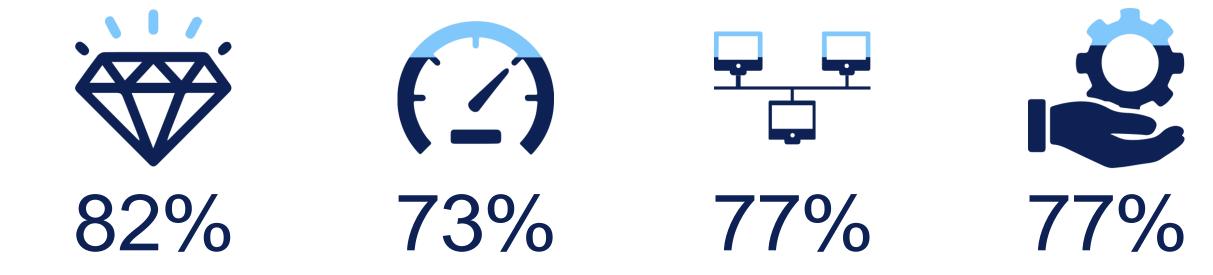
Q32. Which use cases in your organization do you believe GenAI should be first applied?



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Al integration

Q33. Respondents who agree with the below statements



Data is the differentiator, and our GenAl strategy must involve using and protecting that data We have the **flexibility to scale** our GenAl projects at any time We would like to consume enterprise-specific Al models as a service

Ultimately, the **organization**, rather than the machine, the user or the public, **is responsible for any Al malfunction** or undesired behavior

• (n=6,600)

 (n=6,190)
Only asked those whose organization has not banned GenAl use • (n=6,600)

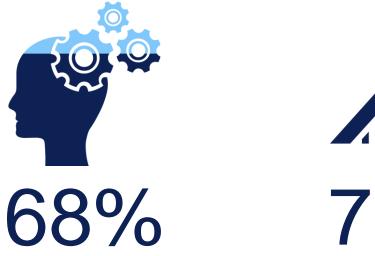
• (n=6,600)

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Al integration

Q33. Respondents who agree with the below statements



79%

We are concerned about the closed system nature of Al and its potential for bias, IP infringement, and other risks we don't understand Bringing AI to my data creates **more value** for the organization because we control it, the data is fresh, and we have secure access We're working to **limit the** energy consumption of GenAI by right-sizing our model

70%



An increase in litigation as trademarks, copyrights, and trade secrets compromised by GenAl have/ will become a **legal hot button issue**

Responsible Al



Using GenAl responsibly

Q34. How can organizations ensure that GenAl is used responsibly? - showing top 5 most common answers

Top 5 ways organizations can ensure GenAl is used responsibly

Ensure there is human oversight over AI tools and to intervene as needed to warrant equitable 41% results Ensure that the technology is regulated appropriately with innovation, safety, and 40% transparency at the core Make sure that AI tools respect users' 39% expectations of privacy and security Create risk management processes to measure 37% the risks associated with AI-powered systems Make AI tools that are explainable, traceable, 37% and transparent



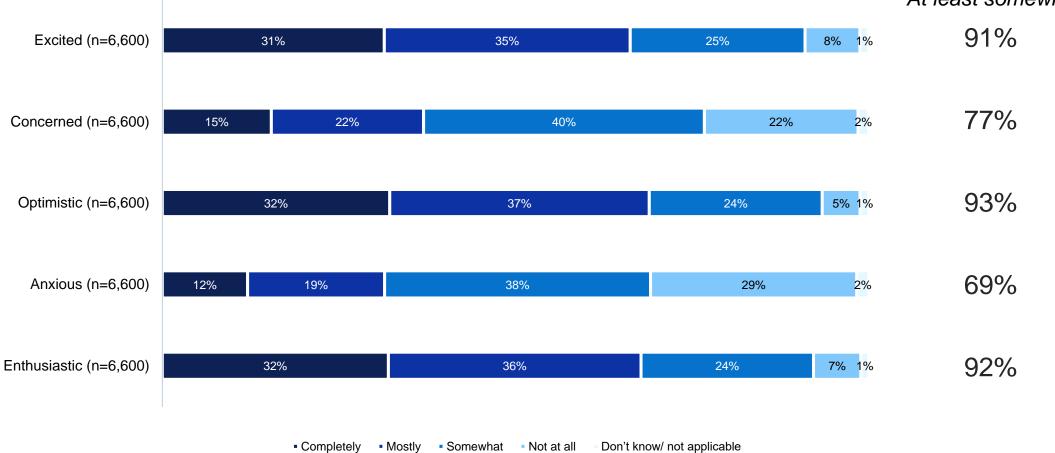
of respondents think organizations can **use GenAl responsibly**

GenAl impact on talent, skills and behaviors



Personal feelings towards GenAl's potential

Q35. Across the following areas, what are your personal feelings about the potential GenAI can have on your organization?

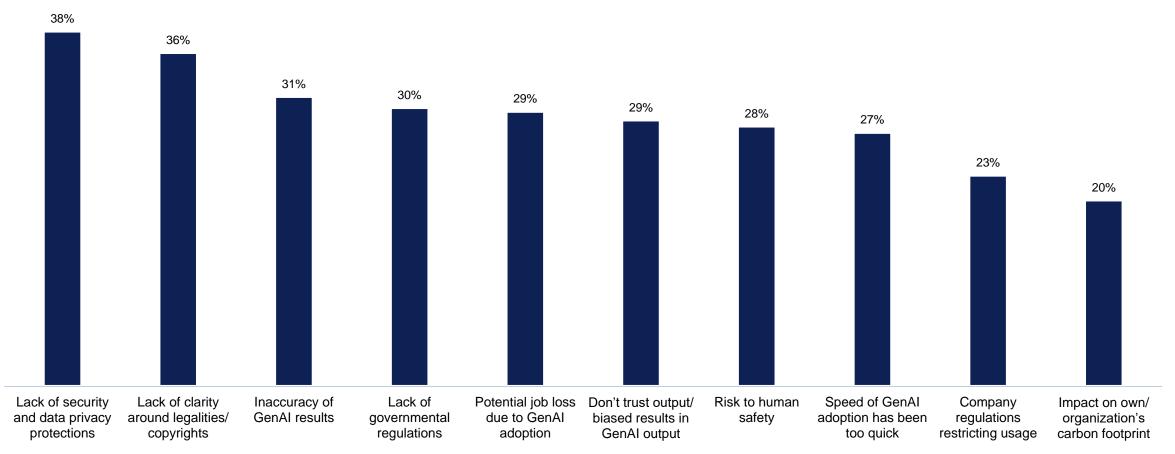


At least somewhat

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GenAl - reasons for lack of excitement

Q36. You previously indicated that you were not completely excited by GenAI. Which of the following are reasons you are not very excited (have some concerns)?

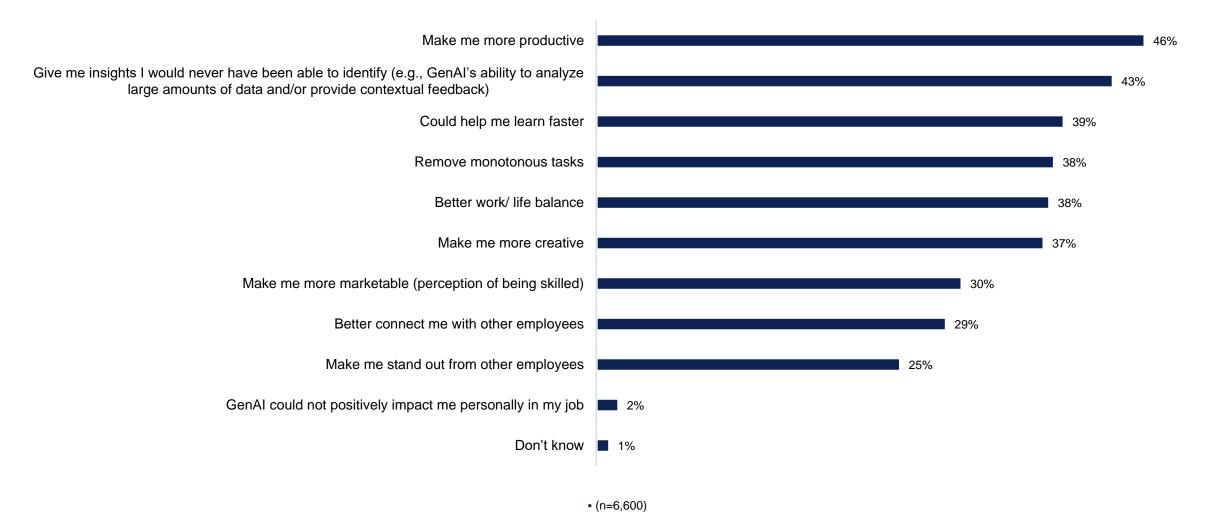


• (n=4,444)

Only asked to respondents who are not "completely" excited about GenAI

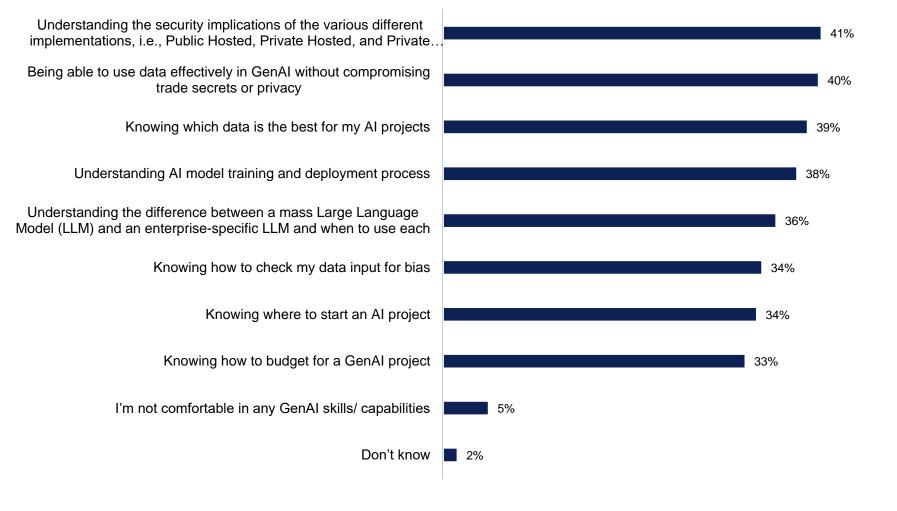
GenAl's positive personal impact

Q37. How could the use of GenAI positively impact you personally in your job?



GenAl skills

Q38. Which of the following capabilities and/or skills around GenAI are you comfortable in?





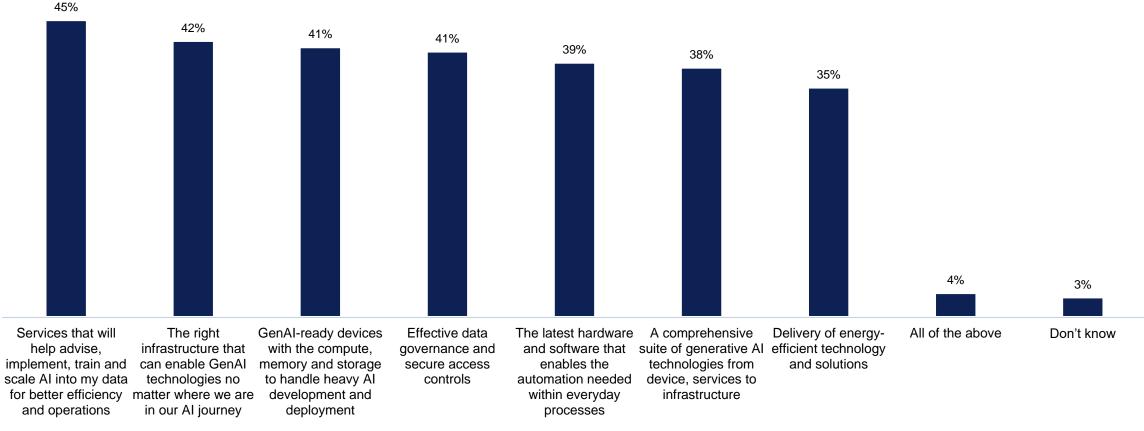
of respondents are comfortable in some GenAl skills

Expectations from technology vendors



Anticipated GenAl partner requirements

Q39. What are your anticipated requirements from a technology partner in the context of GenAI?

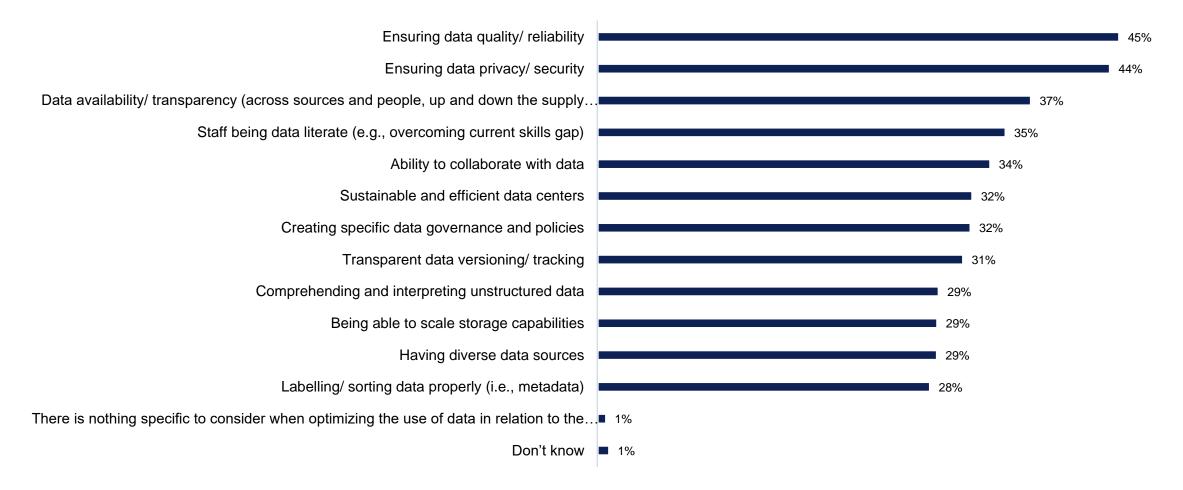


Al implications on data



Optimizing data in the GenAl era

Q40. What are the most important attributes to consider when optimizing the use of data in the GenAI era?



Data challenges

Q41. What are your organization's biggest challenges when identifying, preparing and/ or using data for AI and/ or GenAI use cases?

Top 5 challenges when identifying, preparing and/or using data for AI			
#1	Ensuring data privacy/ security (protecting from data leakage/ loss of IP)	37%	
#2	Limited data availability/ transparency (i.e., unable to use multiple/ all data sources across sources and people, up and down the supply chain)	33%	
#3	A lack of internal expertise in data science and AI	33%	
#4	Handling sensitive or private data in compliance with regulations	32%	
#5	Dealing with messy or incomplete data that requires cleaning and preprocessing	31%	



94%

of organizations anticipate facing challenges when identifying, preparing and/or using data for AI

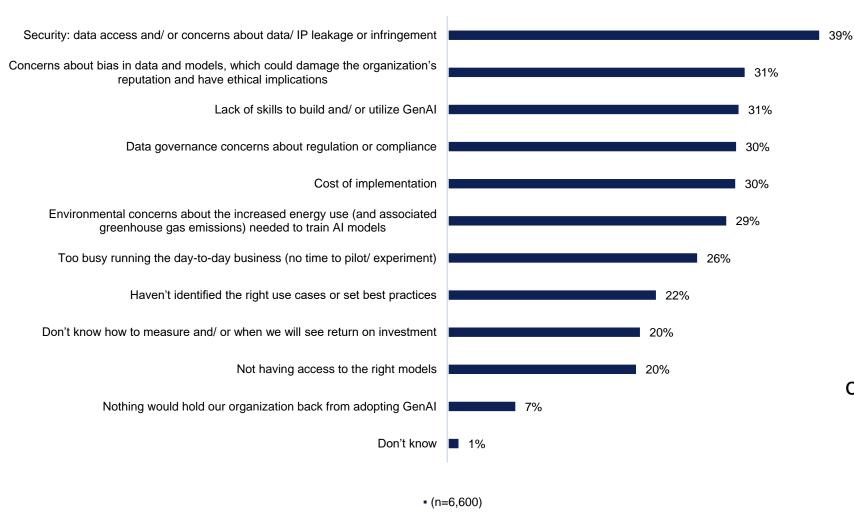


GenAl adoption challenges



Challenges holding back GenAI adoption

Q42. What, if anything, would hold your organization back from adopting GenAI?





of organizations are being held back from adopting GenAl

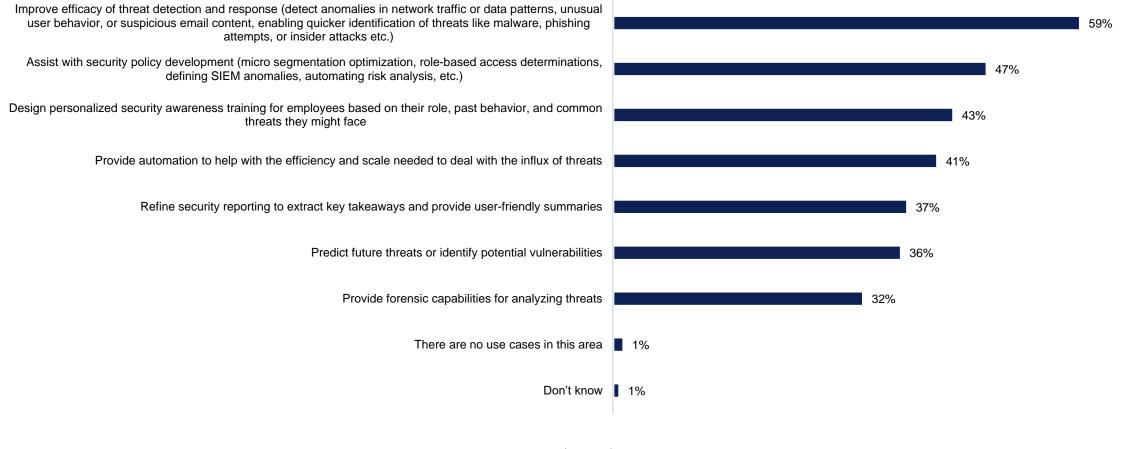
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GenAl implications on security



GenAl IT security use cases

Q43. When considering IT security, in which use cases could GenAI be used to optimize and or improve your organization's security posture?



• (n=3,300) Only asked to IT decision makers

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Al outlook and regulation



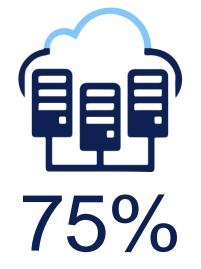
Preparing for AI/GenAI utilization

Q44. Respondents who agree with the below statements



I'm confident that we have the **right multicloud strategy** to handle the high volume and intensity of generative AI workloads

Only asked those whose organization has a multicloud environment



We use private/ on-prem solutions over public cloud providers to ensure that GenAI applications are **properly secured** and that the data they process is protected

Only asked those whose organization has not banned GenAl use



GenAl tools will help deploy more intuitive, personalized applications to my workforce

• (n=6,532)

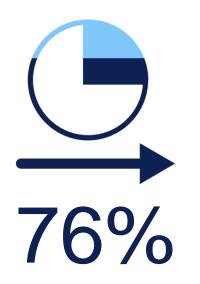
• (n=6,600)

• (n=6,190)

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Preparing for AI/GenAI utilization

Q44. Respondents who agree with the below statements



I feel confident we can design a GenAl solution to meet **real-time needs and avoid data gravity**



We know how to manage AI workloads **securely at the edge**

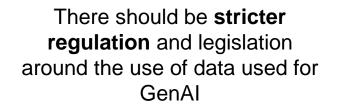


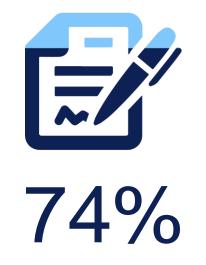
Al and/or GenAl can(/could) help us prevent, detect, and respond to **outof-policy threats** and behavior from our workforce

GenAl regulations

Q44. Respondents who agree with the below statements







We should **put our own GenAl governance in place** rather than waiting for government regulations

Methodology:

Dell Technologies commissioned independent market research specialist Vanson Bourne to conduct this research. The study surveyed 6,600 respondents from organizations with 100+ employees from across the following regions: North America, LATAM, EMEA, APJ and Greater China. These organizations are from a range of public and private sectors.

All respondents either drive or influence innovation in their organization. Of the total number of respondents, 3,330 are IT decision-makers (ITDMs) and 3,330 are business decision-makers (BDMs).

The interviews were conducted online and via telephone in September, October and November 2023 and were undertaken using a rigorous multi-level screening process to ensure that only suitable candidates were given the opportunity to participate.

About Dell Technologies:

Dell Technologies helps organizations and individuals build their digital future and transform how they work, live and play. The company provides customers with the industry's broadest and most innovative technology and services portfolio for the data era. <u>www.delltechnologies.com</u>.

About Vanson Bourne:

Vanson Bourne is an independent specialist in market research for the technology sector. Their reputation for robust and credible research based analysis is founded upon rigorous research principles and their ability to seek the opinions of senior decision-makers across technical and business functions, in all business sectors and all major markets. <u>www.vansonbourne.com</u>.

