

**data
iku**



databricks

SURVEY REPORT

AI, Today

Insights From 400 Senior AI
Professionals on Generative AI,
ROI, Use Cases, and More

Introduction

Generative AI (GenAI) has rapidly transitioned from an emerging technology to a cornerstone of modern business strategy. This year, how are data, analytics, and IT leaders capitalizing on its potential to drive innovation and tackle critical business challenges?

In May 2024, Dataiku and Databricks surveyed 400 senior AI professionals from leading global companies to explore the deployment of GenAI across industries.¹ No longer a novelty, GenAI is now a fundamental part of business operations.

This report delves into how GenAI has (and *has not*) reshaped organizational landscapes and highlights year-over-year trends in its utilization, investment strategies, ROI, and the evolving operational challenges. By building on last year's insights, we reveal the implications of GenAI integration, showcasing its transformative impact and the new realities faced by companies worldwide.



of senior AI professionals plan to invest over \$1 million in GenAI within the next 12 months.



of respondents are investing in GenAI, whether it's via a dedicated GenAI budget or it comes from other budgets, such as IT, data science, or analytics.

¹ Respondents are director level or higher, come from the U.S., EMEA, and APAC, and work at organizations with >\$3 billion in annual revenue. See p. 21 "About the Survey" for additional details about respondents and methodology.

GenAI Has Changed Everything

With GenAI firmly established as a key business asset, organizations are undergoing significant transformations to capitalize on its benefits. The rapid adoption of GenAI has sparked a ripple effect among senior AI professionals, compelling them to stake their claim in this technological revolution.

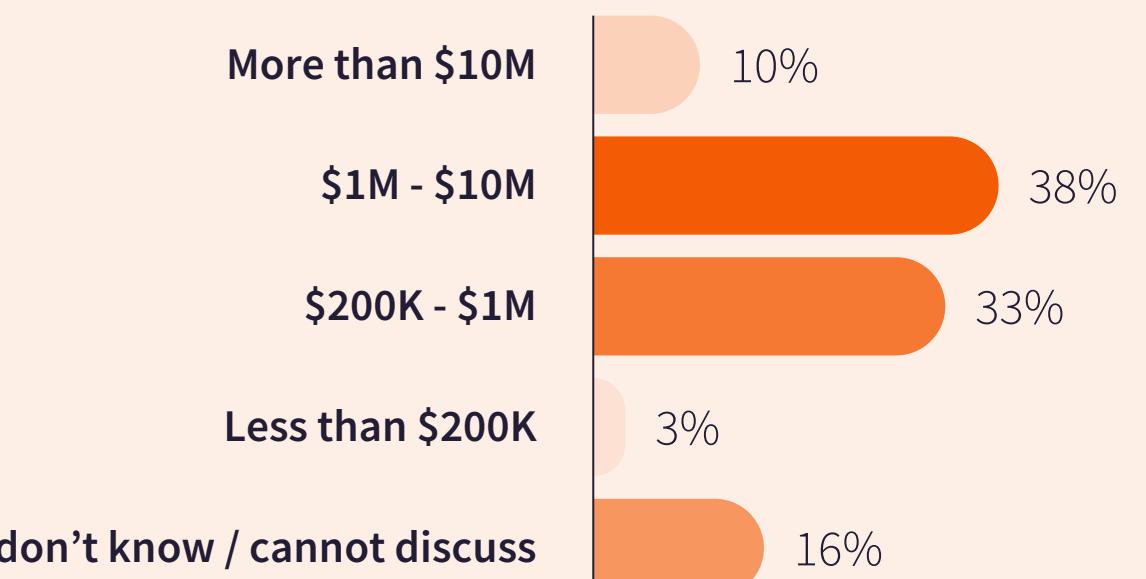
As they rush to scale GenAI capabilities, adjust budgets, and allocate resources, nearly half (a substantial 48%) plan to spend over \$1 million on GenAI initiatives in the next 12 months, signaling a major strategic commitment.

Diving deeper, 90% of surveyed leaders are spending on GenAI in some form: 57% include GenAI as part of their IT and data science budgets, while 33% are creating new budget lines specifically for GenAI projects.

This financial realignment highlights a decisive shift: Organizations are moving from exploring GenAI's potential to actively shaping operations and strategies to fully leverage its capabilities.

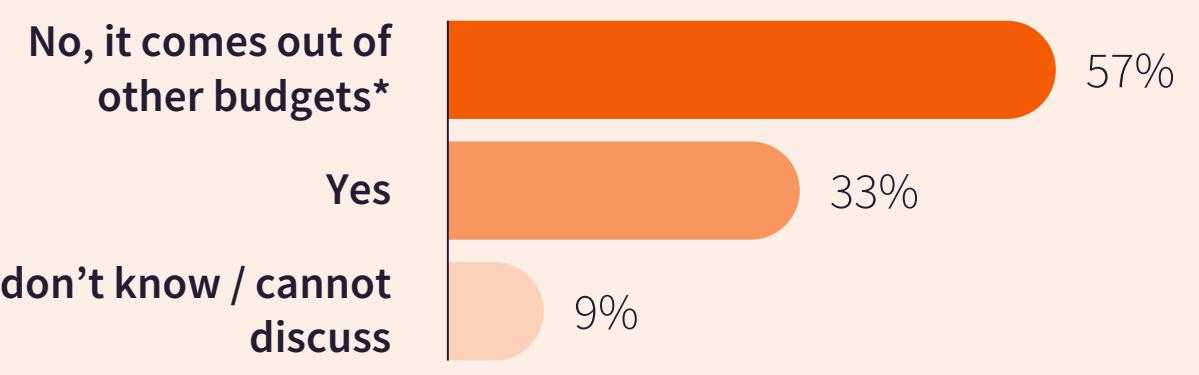
Estimated Organization Spend on GenAI: Next 12 Months

Q17b: Approximately how much will your organization spend on GenAI in the next 12 months?



Dedicated Budget for GenAI Initiatives: Next 12 Months

Q17a: Do you have a specific budget dedicated to GenAI initiatives, use cases, technology/tools, and/or services in the next 12 months?



* e.g., IT, larger data science/analytics budgets, etc.

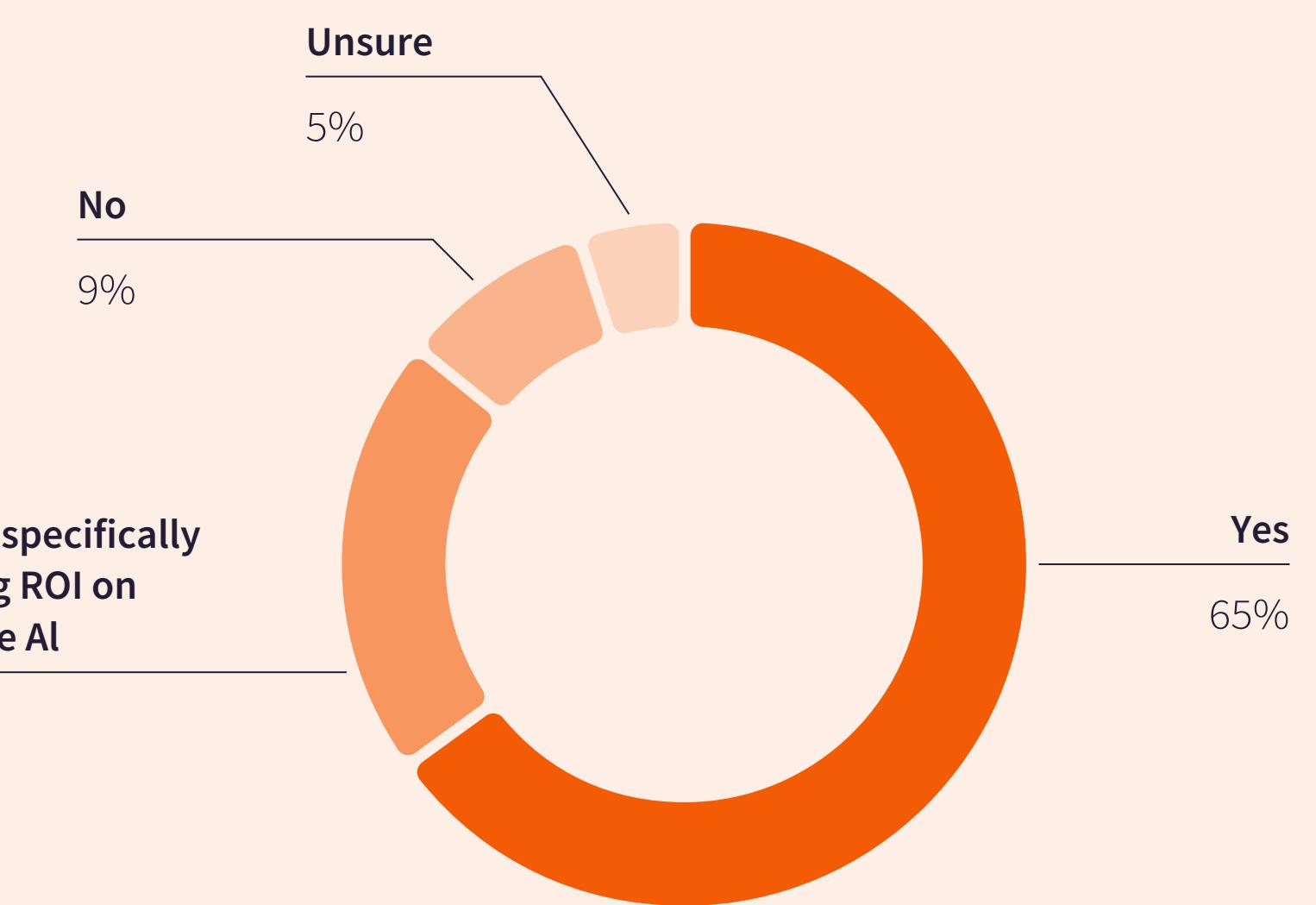
65% See Positive ROI From GenAI Investments

As investments surge, the natural question arises: Are these investments paying off?

Of the respondents who have any large language models (LLMs) or GenAI models in production, a compelling 65% affirm that they are experiencing positive returns on their GenAI investments, demonstrating that these initiatives are not only guided by strategic foresight but are also financially rewarding.²

Experiencing Positive ROI From GenAI Use Cases

Q20new: Are you seeing positive ROI from GenAI use cases in production?



Despite the promising potential of GenAI, the overall ROI (for each \$1 spent on data, analytics, and AI initiatives) has remained relatively stable year over year. This suggests several possibilities:

- Organizations have not significantly updated their methods for tracking and realizing returns with the advent of GenAI.
- It might be too early to accurately measure the returns from GenAI.
- Organizations may not be seeing the anticipated returns from their GenAI investments.
- There is uncertainty about how to measure ROI from GenAI effectively.

What does this indicate? True ROI is less certain than ever before, so organizations must double down on their efforts to quantify the returns they are seeing. By doing so, they can ensure that their investments (including in GenAI) deliver real value and that costs do not exceed the benefits.

² This question was asked to a subset of respondents, in this case n=225.

Industry Leaders Leverage a Variety of GenAI Models for Strategic Advantage

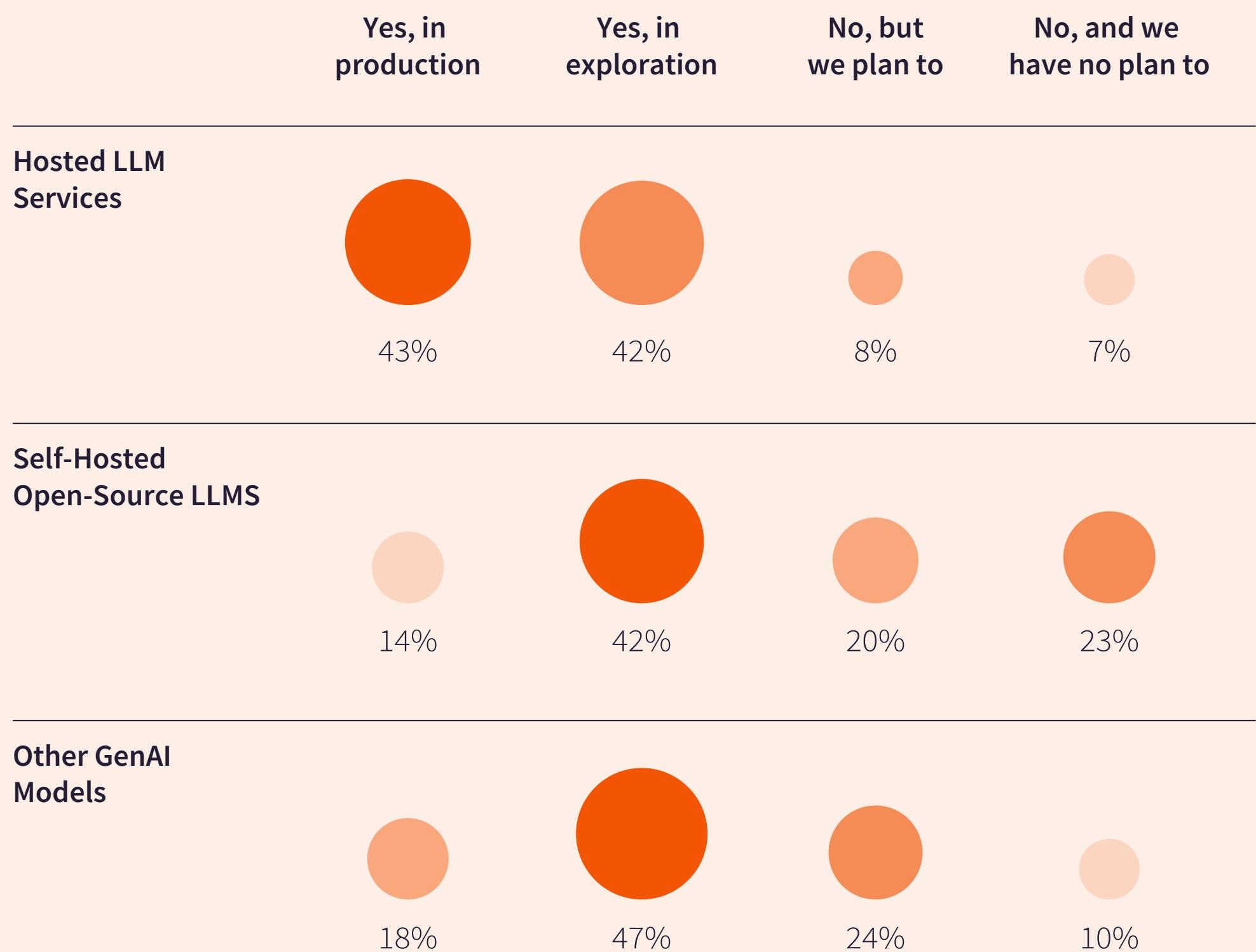
With financial gains from GenAI investments becoming clear, industry leaders are eagerly adopting various GenAI models to stay ahead:

- Hosted LLM services (e.g., OpenAI) are the most popular due to their ease of integration and broad acceptance, with 85% of respondents either using these services in production or exploring their potential.
- Meanwhile, self-hosted open-source LLMs (e.g., Meta Llama, Mistral, DBRX, and Falcon) are gaining popularity for their flexibility and their ability to address security and privacy concerns, allowing organizations to customize solutions to their specific needs.
- Beyond LLMs, 65% of respondents are exploring or productionizing other GenAI models (i.e., multimodal, video, image, audio), showcasing a strong commitment to experiment with new applications that add business value.

This broad engagement with diverse GenAI models showcases how organizations are pushing innovation boundaries to maintain a competitive edge.

Type of GenAI Models / LLMs Currently Using

Q19new: Are you currently using any of the following GenAI models / LLMs?



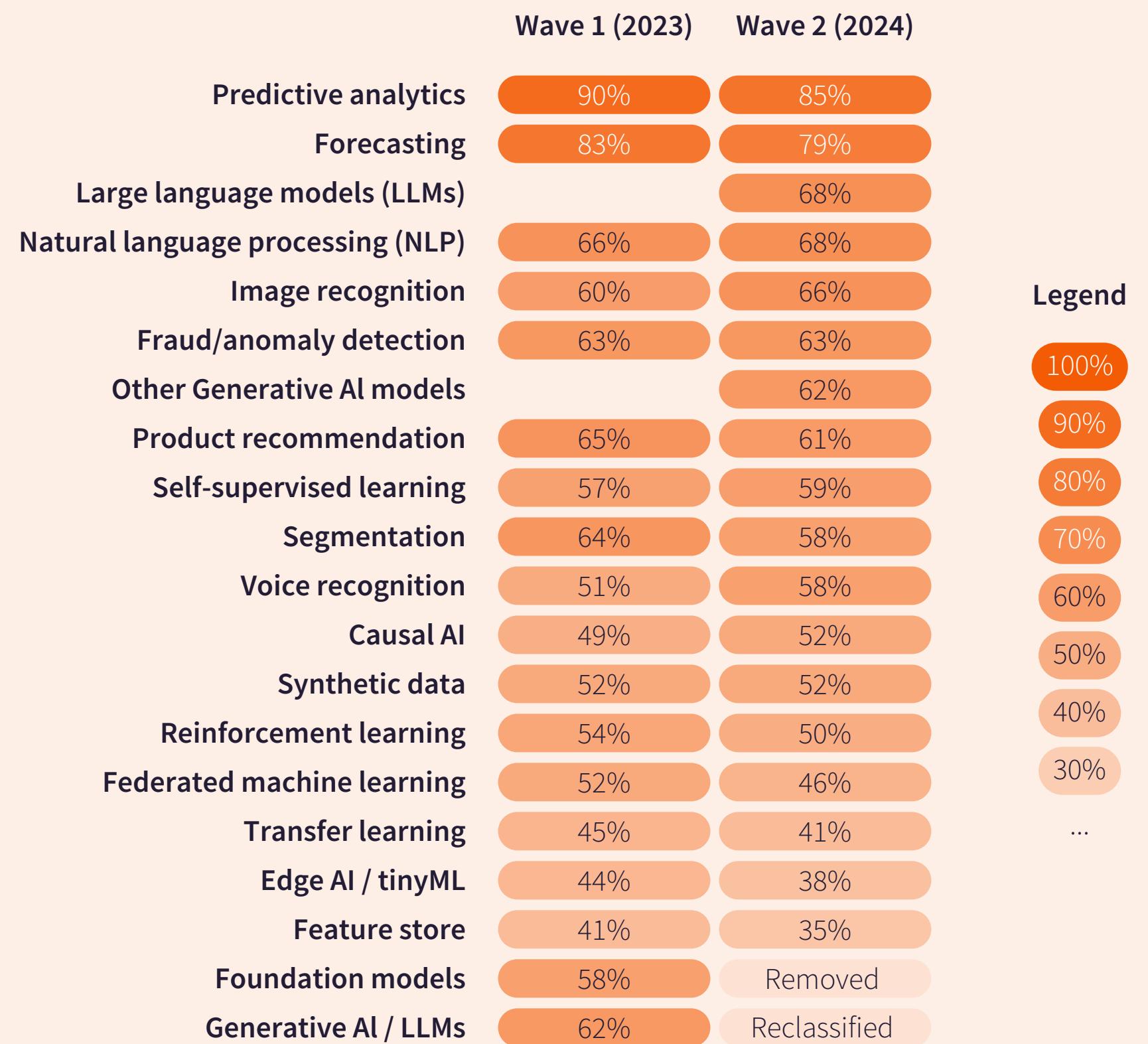
AI Catalyzes Business Functions With Diverse Use Cases and Techniques

As organizations enhance their AI capabilities, innovative use cases are emerging across various lines of business, extending beyond traditional applications into areas like LLMs and image recognition.

Techniques Used for Data Science, Machine Learning, or AI Use Cases

Q15: What data science, machine learning, or AI techniques are you using for any use case in your organization?

% Selected 'Experimenting' or 'Actively Using or Have Used'



Organizations are increasingly applying data science, machine learning (ML), and AI techniques across a wider range of departments.

Traditionally speaking, many industries have core functions that are analytics driven (i.e., quants in finance, actuaries and risk modelers in insurance, logistics analysts in supply chain).

However, this year's data indicates movement towards expanding data science and AI to a wider population across the enterprise — specifically to departments that previously lacked obvious predictive or ML use cases but now have clear GenAI use cases.

For instance, HR might leverage GenAI for talent acquisition and employee management, while legal teams may use it to automate compliance tasks and streamline document review. In contrast, some departments like R&D have seen a slight decline in analytics and AI use cases, dropping from 76% in 2023 to 72% in 2024. One driver of this shift might be that some departments may naturally have more obvious GenAI use cases than others.

These evolving applications reflect GenAI's growing potential to drive innovation across diverse business functions, beyond the core use cases that every industry starts with.

Lines of Business With Use Cases for Advanced Analytics, Data Science, and/or AI

Q14: For what lines of business has your organization developed advanced analytics, data science, and/or AI use cases?

% Selected 'We Have Developed or Are Currently Developing Use Cases in This Area' or 'Use Cases in This Area Are on Our Roadmap for the Next Year'



The Needle Is Moving

PEOPLE ARE LESS WORRIED, MORE EXCITED ACROSS THE BOARD

While overall sentiment around AI remains stable, the most dramatic year-over-year shifts are at the extremes.

This year, the percentage of respondents who are more excited than worried has slightly decreased from 8% to 6%. Conversely, those who are more worried than excited about AI have sharply fallen from 10% to just 4%.

This reduction in extreme views suggests a shift towards a more moderate perspective on AI. As opinions become less polarized, organizations may increasingly adopt balanced and pragmatic approaches to integrating AI into their strategies and operations.

Fears About AI

Q24: Fears about AI are:

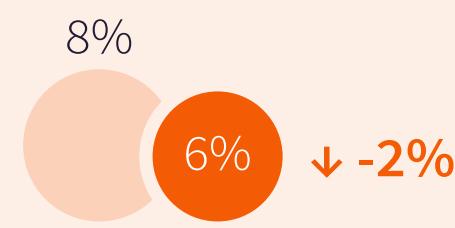
Years: 2023

2024



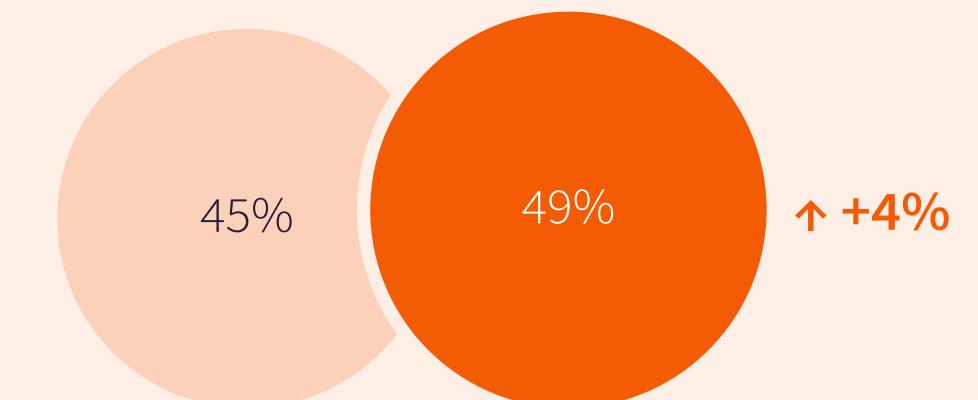
Totally justified

I'm more worried than excited about the future of AI.



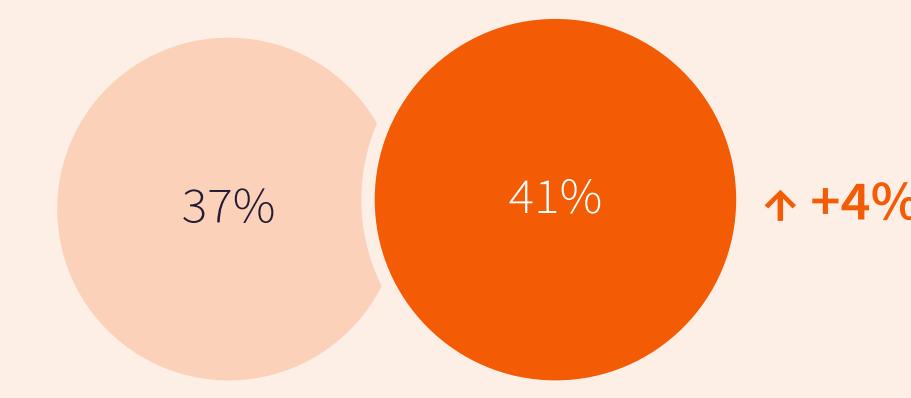
Totally overblown

I'm more excited than worried about the future of AI.



Somewhat justified

I'm worried and excited (but more worried) about the future of AI.



Somewhat overblown

I'm excited and worried (but more excited) about the future of AI.

However, when it comes to GenAI, the landscape is quite different, with reactions being particularly stronger.



of respondents view GenAI as a revolution that will change the way we work.

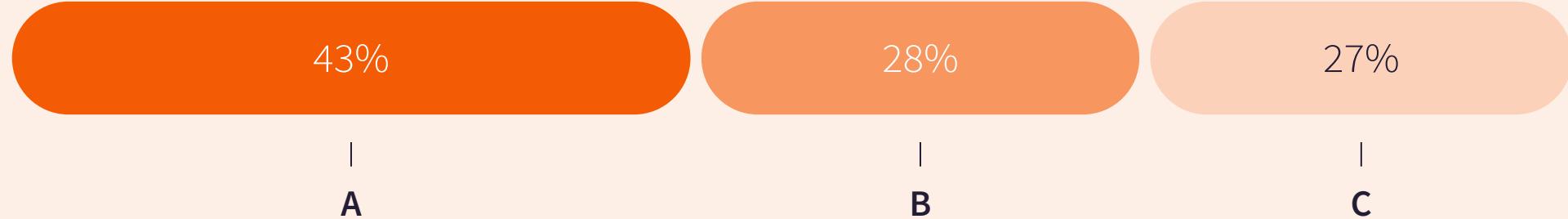


believe that GenAI will have many valuable applications and companies should start developing those now.

Feelings About GenAI

Q23new: What are your personal feelings about GenAI?

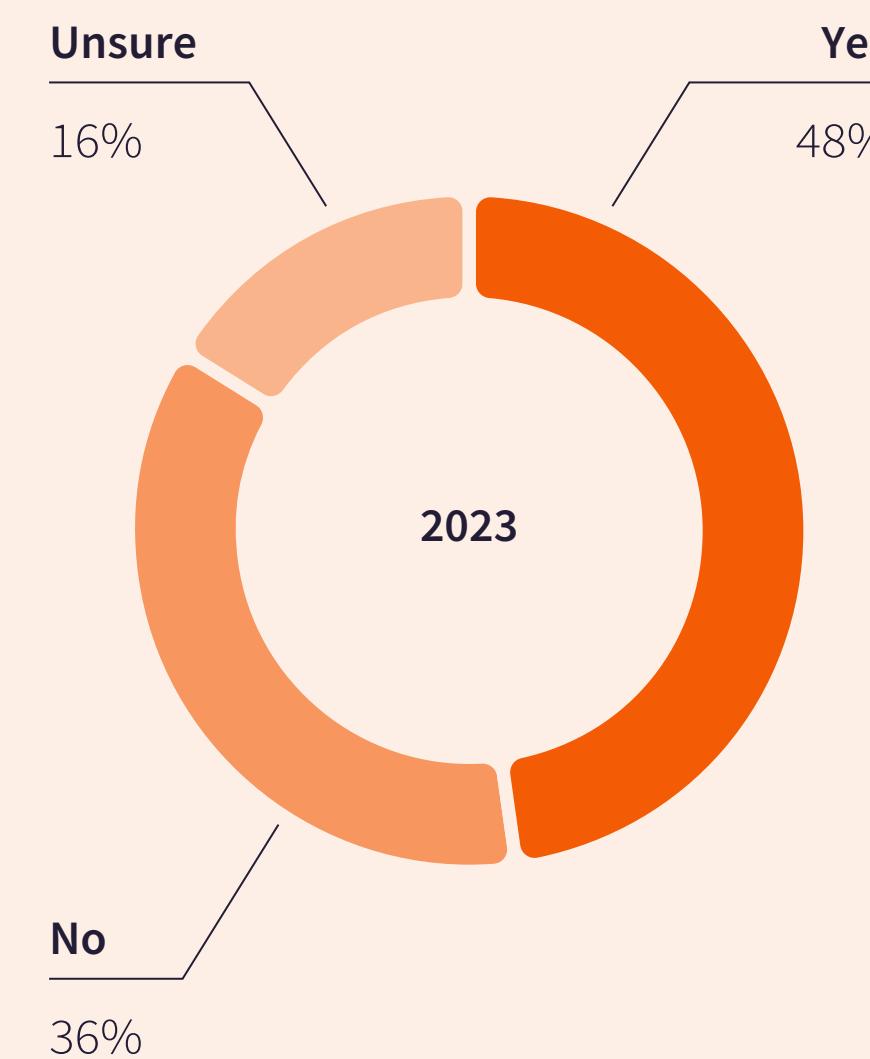
- A. It will have many valuable applications and companies should start developing those.
- B. It's a revolution and will change the way we work.
- C. It could have valuable applications, but it's not clear what those are.



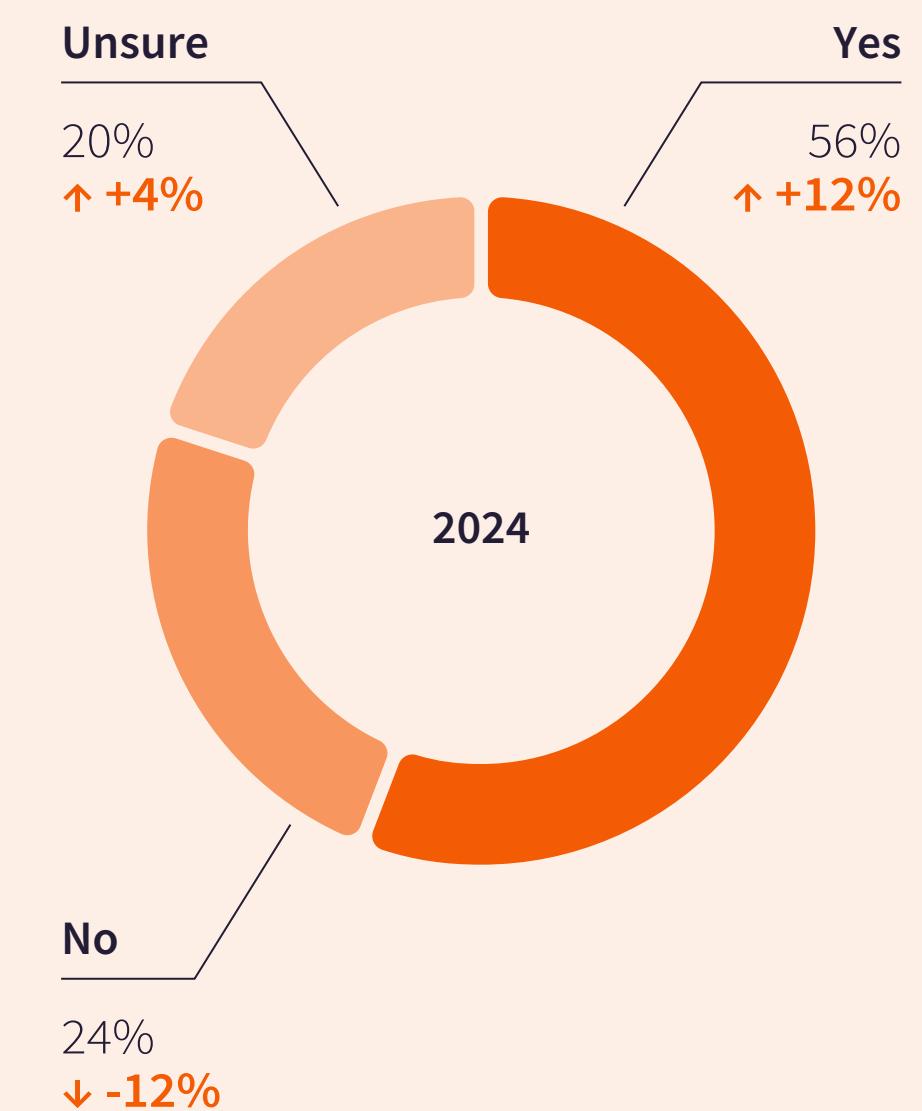
Growing optimism is also evident in the increased confidence in organizational leaders regarding AI (including GenAI). The proportion of respondents who believe that their leaders understand AI's risks and benefits has risen from 48% last year to 56% this year. This increased confidence likely drives more strategic adoption of GenAI, accelerating innovation and improving organizational outcomes.

Belief That Leaders Understand the Risks and Benefits of AI

Q22: Do you think the leaders at your organization (c-suite — CEO, CMO, CFO, etc.) understand the risks and benefits of AI?



2023



2024

In the End, GenAI Hasn't Changed Anything

Despite the growing enthusiasm and strategic investments in GenAI, several foundational barriers remain unchanged, hindering its full potential.

The primary obstacles to extracting more value from analytics and AI have stayed largely the same year over year. While cost has seen the most notable change, it hasn't shifted significantly enough to impact overall trends.

Barriers to Preventing Organizations From Delivering More Value From Data, Analytics, and AI

Q11: Please rank all barriers preventing you from delivering more value from data, analytics, and AI, where 1 is the biggest/most present barrier (Note: Other (n=41) not shown):

% Ranking Each 'Rank 1 - Biggest/Most Present Barrier,' 'Rank 2,' or 'Rank 3'



New GenAI-specific barriers have also emerged:

- **Resource Access:** 44% lack the necessary resources internally or externally to run advanced GenAI models.
- **Employee Knowledge:** 28% report their employees don't know what to do with GenAI.
- **IT and Policy Constraints:** 22% cite IT and internal policies prevent them from using GenAI.

Interestingly, for those who cited “Other” (12%), many cited concerns over regulation. All of these challenges highlight the need for stronger resource allocation, dedicated GenAI training programs (including governance and regulatory topics), and IT collaboration to fully leverage GenAI.

Steady Foundations in AI Practices

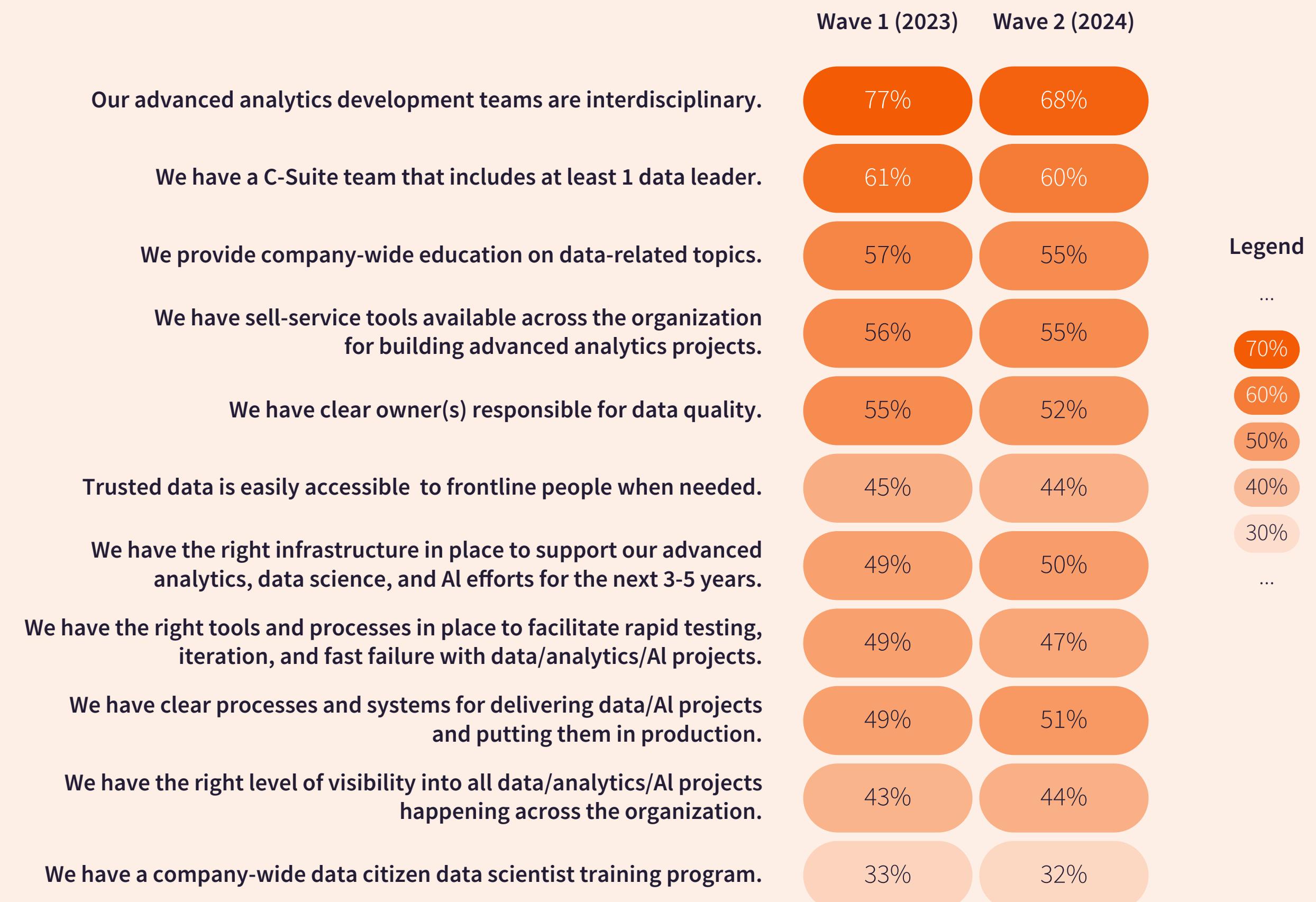
While AI implementation continues to evolve, several core organizational practices remain remarkably stable.

Comparison statistics from last year to this year reveal that most key metrics have held steady, underscoring a reliable foundation in AI-related initiatives.

Agreement With Statements About Current Organization

Q12&13: Please indicate your agreement with the following statements in regard to your current organization.

% Selected 'Yes/Generally Agree'



AI Pioneers Continue to Lead the Charge

Amidst ongoing AI challenges, a clear distinction remains between those advancing rapidly and those lagging behind. AI Pioneers³ are at the forefront, investing heavily and strategically to leverage AI's full potential.

Reflecting on last year's insights, AI Pioneers were notably more committed to AI, often featuring a dedicated data leader in their C-suite (70%) and exhibiting greater confidence in their executives' understanding of AI's risks and benefits (53%). This heightened executive support is closely correlated with increased budget allocations.

This year, AI Pioneers are further reinforcing their leadership by investing more in data and AI technology tools than their peers:

- 84% are investing over \$1 million (up from 77%).
- 57% are dedicating over \$5 million (up from 48%).
- 21% are spending over \$20 million (up from 17%).

In contrast, other organizations have also increased their investments but at a slower rate:

- 31% are dedicating over \$5 million (up from 30%).
- 10% are spending over \$20 million (up from 7%).

Additionally, 38% of AI Pioneers now have a dedicated GenAI budget, compared to just 24% of their peers.



of AI Pioneers see positive ROI from GenAI use cases, compared to 52% among non-Pioneers.



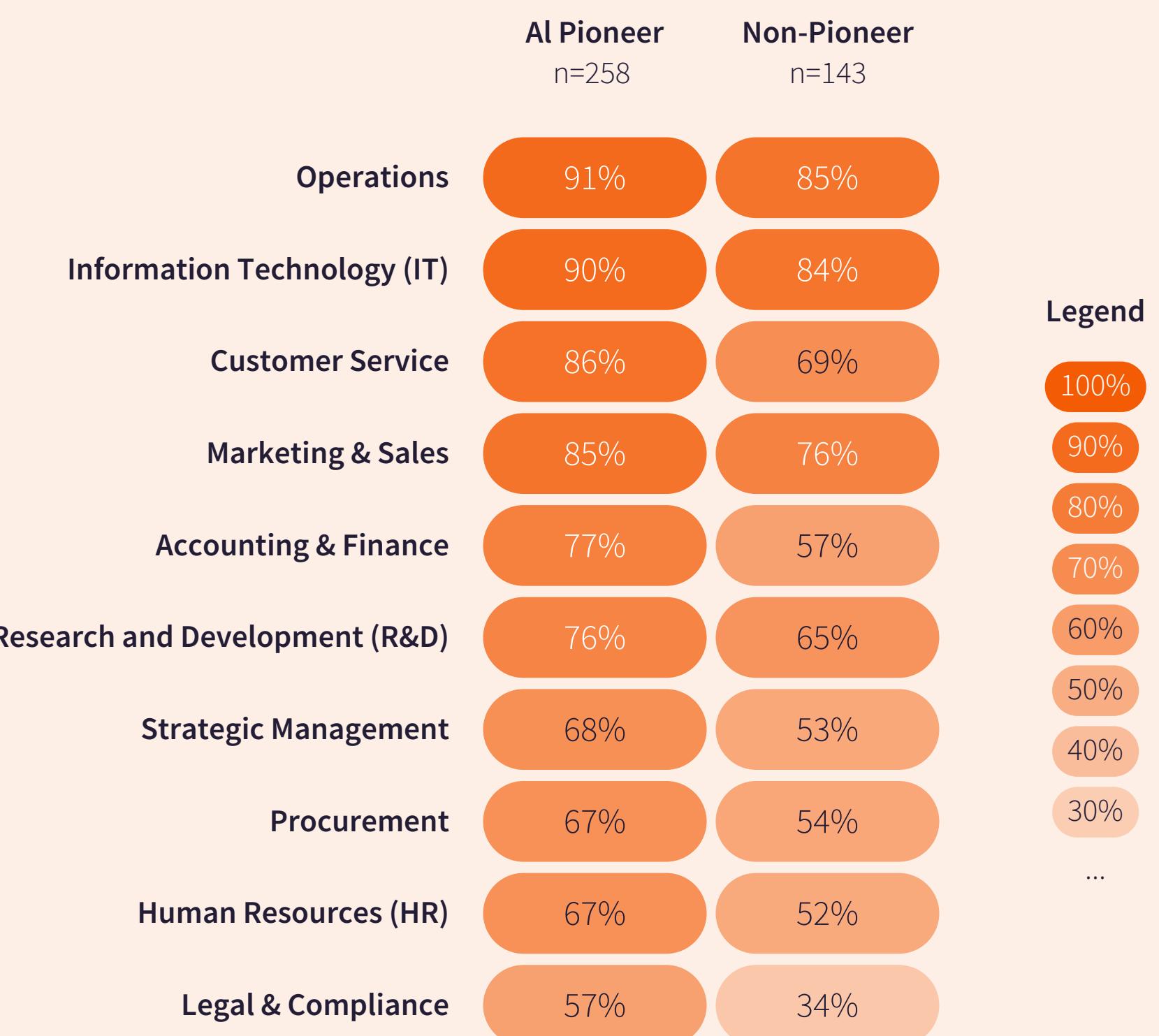
of AI Pioneers plan to spend over \$1 million on GenAI in the next 12 months, significantly higher than the 35% of non-Pioneers.

³ We defined an "AI Pioneer" as a respondent who meets at least two of the four following criteria: (1) has an advanced level of AI adoption and impact at their organization, (2) has a mature organizational structure for AI (such as a Hub-and-Spoke or Embedded model), (3) has a dedicated framework to account for the value associated with AI initiatives, and/or (4) delivers a return of >\$1 for every dollar spent. See p. 15 "AI Pioneers: Data & Definition" for additional details.

Lines of Business With Use Cases for Advanced Analytics, Data Science, and/or AI

Q14: For what lines of business has your organization developed advanced analytics, data science, and/or AI use cases?

% Selected 'We Have Developed or Are Currently Developing Use Cases in This Area' or 'Use Cases in This Area Are on Our Roadmap for the Next Year'



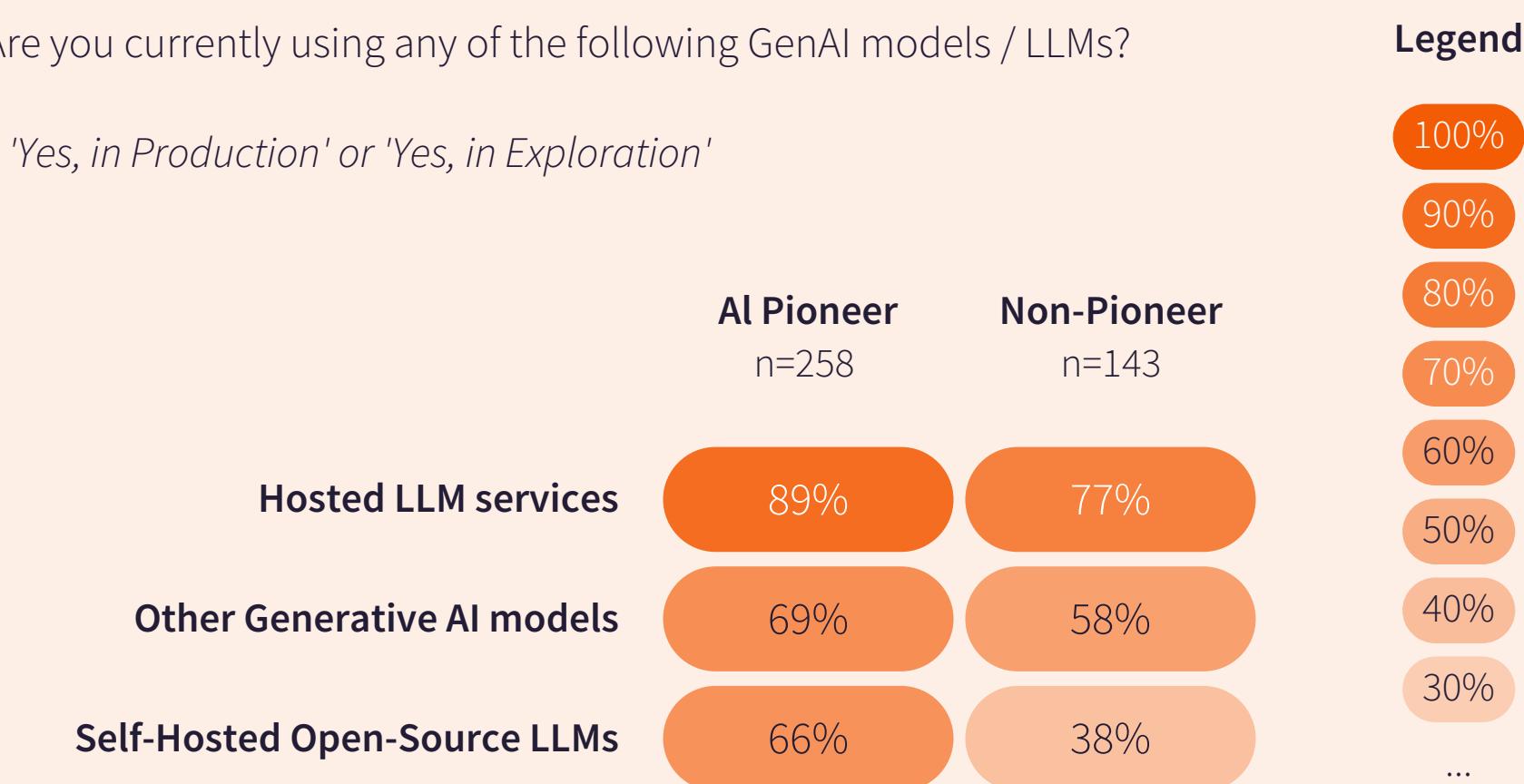
Unsurprisingly, AI Pioneers are at the forefront of data science, analytics, and AI initiatives, consistently expanding use cases and pushing boundaries across every line of business.

They are also using a variety of GenAI models and LLMs more extensively, with hosted LLM services leading the way, aligning with current industry trends.

Type of GenAI Models / LLMs Currently Using

Q19new: Are you currently using any of the following GenAI models / LLMs?

% Selected 'Yes, in Production' or 'Yes, in Exploration'



Conclusion

As the AI landscape evolves, the gap between AI Pioneers and others continues to widen. Those leading the charge demonstrate that strategic investments and focus yield strong returns and a lasting competitive edge.

For organizations aiming to fully harness GenAI's potential, the path is clear: Integrate AI into your core strategy, address challenges like access to technical resources and training, and streamline IT management with solutions like the Dataiku LLM Mesh. By doing so, you can transform potential into measurable success.

Discover how Dataiku can elevate your GenAI journey and beyond. Explore our [**Generative AI capabilities**](#) to uncover how the Universal AI Platform can help you build scalable, enterprise-grade GenAI applications with confidence.

About the Survey

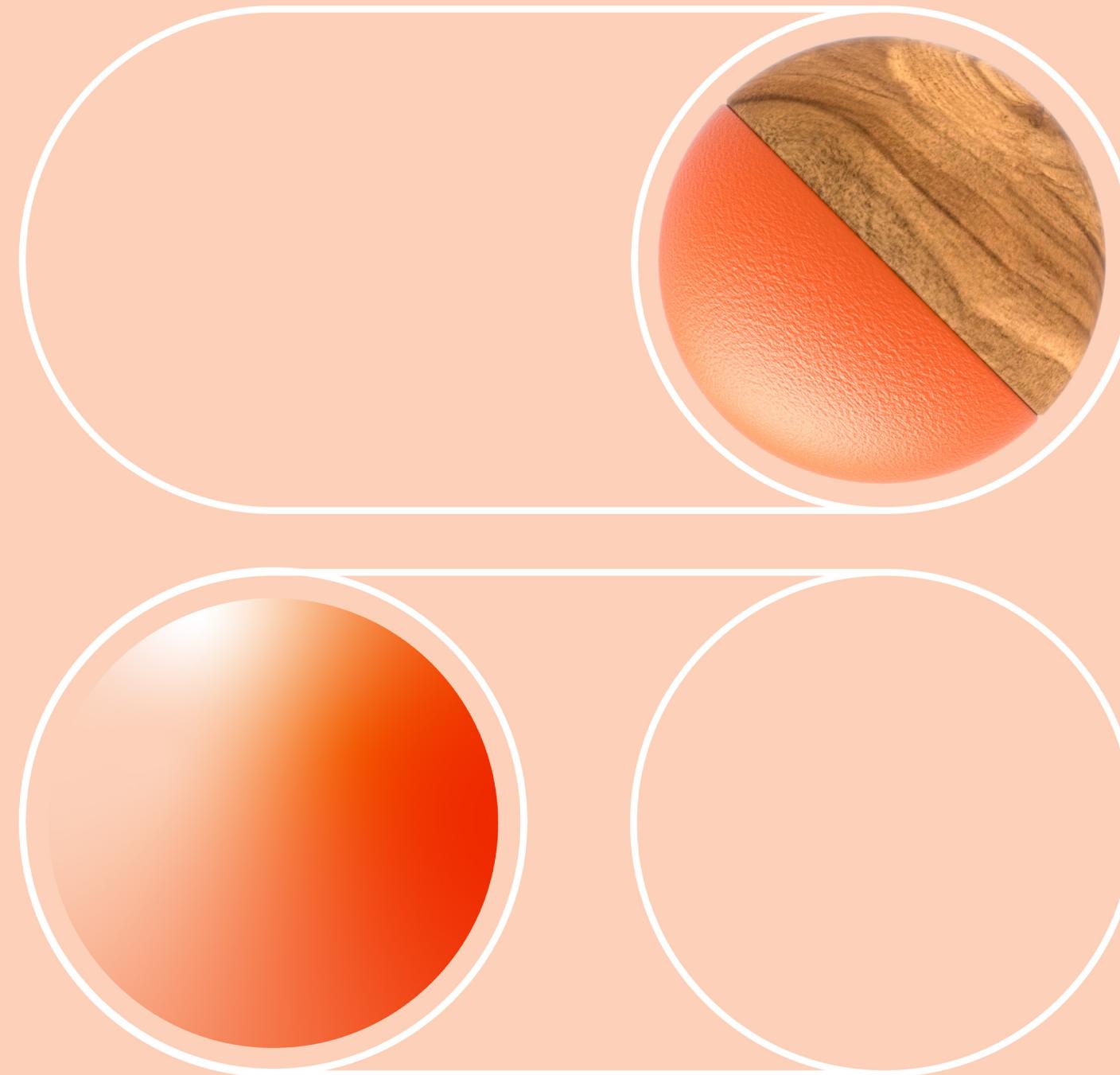
BACKGROUND & OBJECTIVES

Dataiku and Databricks conducted this joint survey to:

1. Understand the impact of GenAI in the enterprise, including spending patterns and dedicated budgets for GenAI initiatives.
2. Assess ROI from GenAI use cases and explore barriers to realizing the full value of analytics and AI within organizations.
3. Gain insights into the differing levels of adoption and sentiment towards AI, focusing on new technologies like GenAI and LLMs.
4. Analyze year-over-year trends in AI adoption and emerging use cases across various business functions.

AI PIONEERS: DATA & DEFINITION

Note that throughout this survey report, an “AI Pioneer” is a respondent who met at least two of the four following criteria. Here’s a look at each of these baseline criteria along with its overall breakdown plus a breakdown by industry and region.



1. MATURITY

Organization has an advanced (i.e., Expanding or Embedding) level of data science and AI adoption.

AI Adoption

Q7: What best describes the level of adoption of data science and/or AI at your organization?

A. Exploring / Experimenting

We're still experimenting with our first projects and use cases.

B. Establishing

We've proved value with several use cases and we're working on building processes to scale out our ability to execute.

C. Expanding

We're working on expanding the use of data science and AI beyond a central team and into different functions and departments across the organization.

D. Embedding

We already have people across different functions and departments using data science/AI, and we're working on embedding into even more activities, making data part of the DNA of the organization.

19%

24%

37%

20%

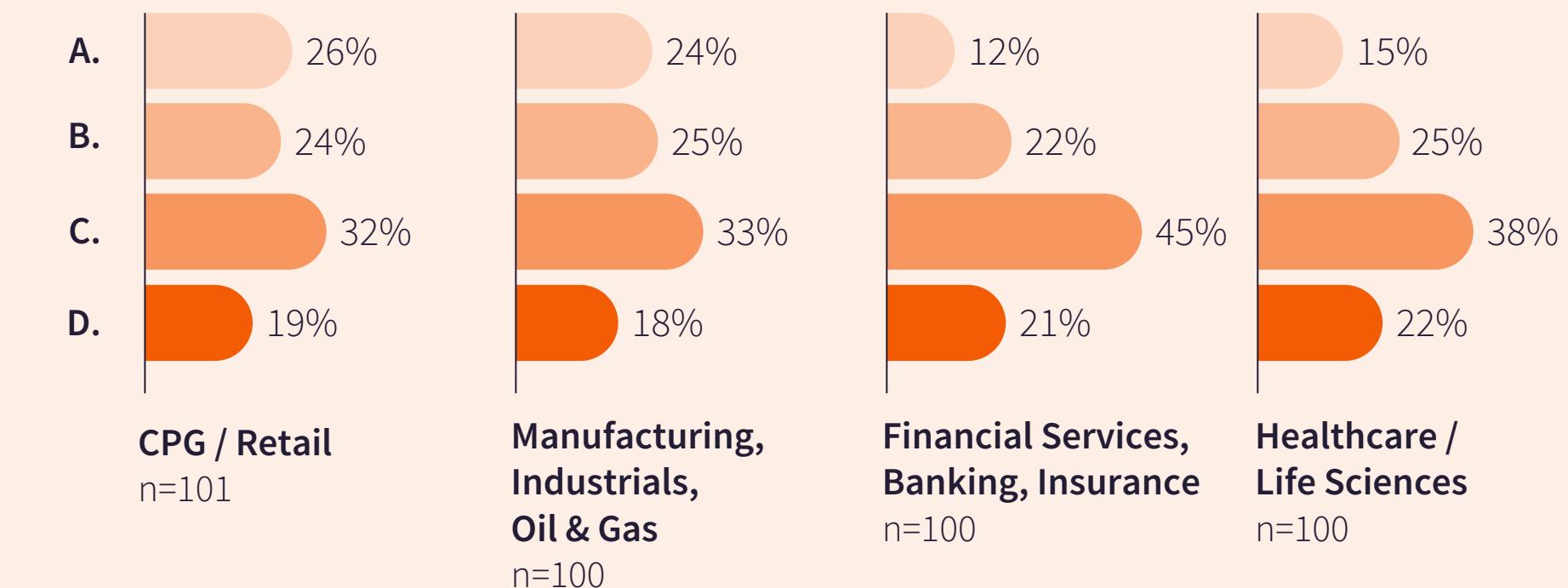
|
A

|
B

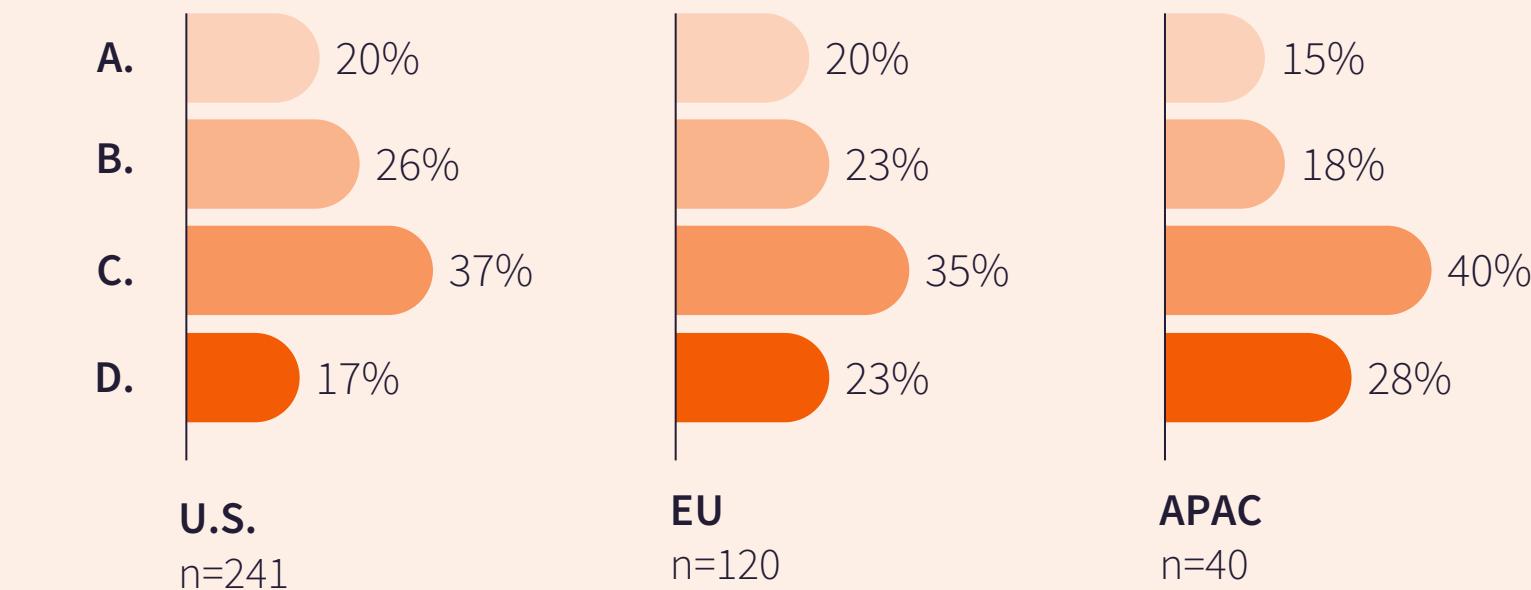
|
C

|
D

AI Adoption by Industry



AI Adoption by Region



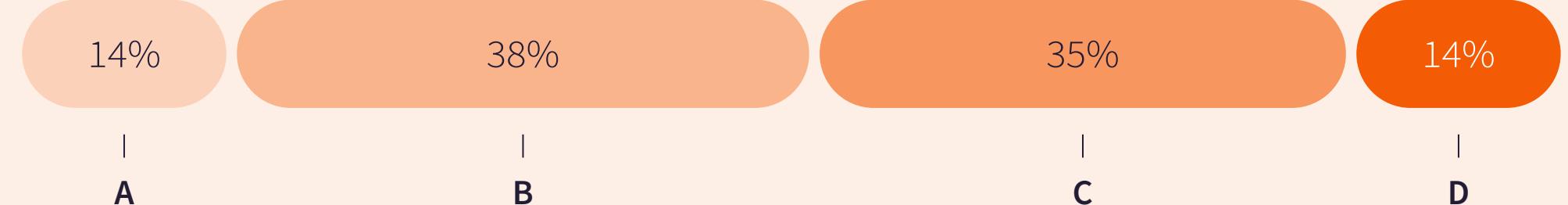
2. ORGANIZATIONAL OR OPERATIONAL MODEL

Organization has a mature (i.e., Hub & Spoke or Embedded) data science, analytics, and AI organizational structure.

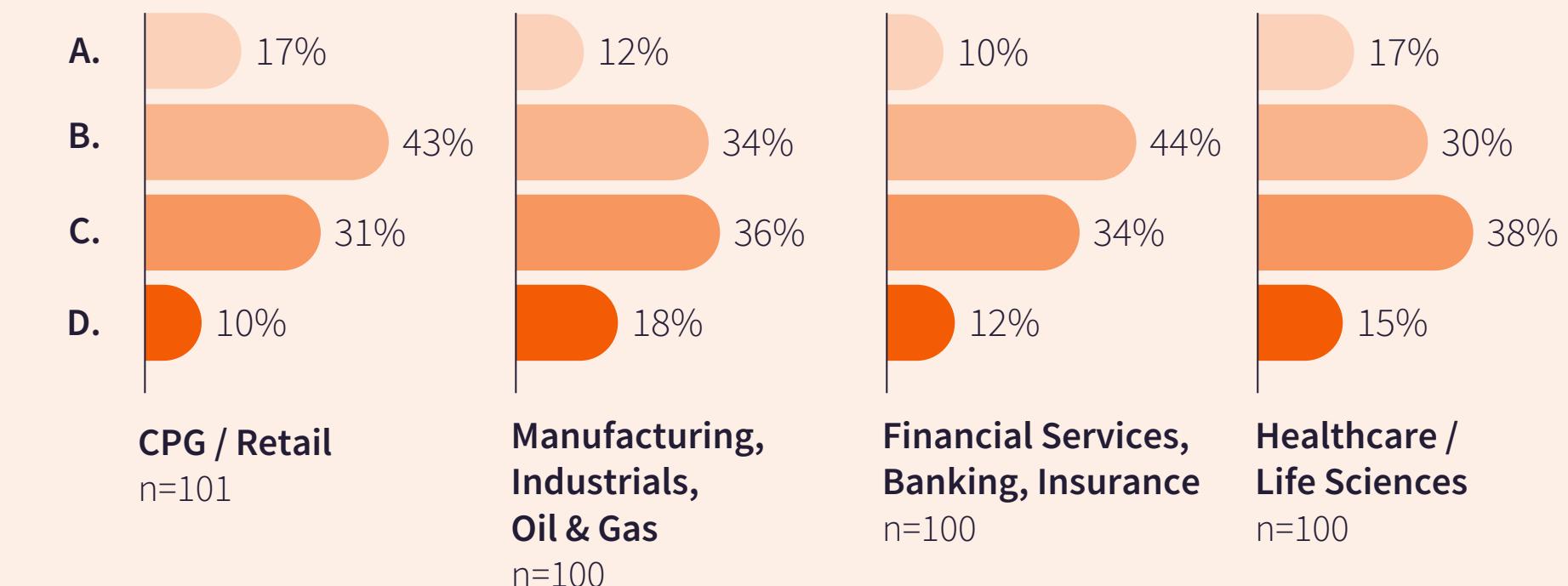
AI Operational Model

Q8: What best describes your organization's structure around data science, analytics, and AI initiatives?

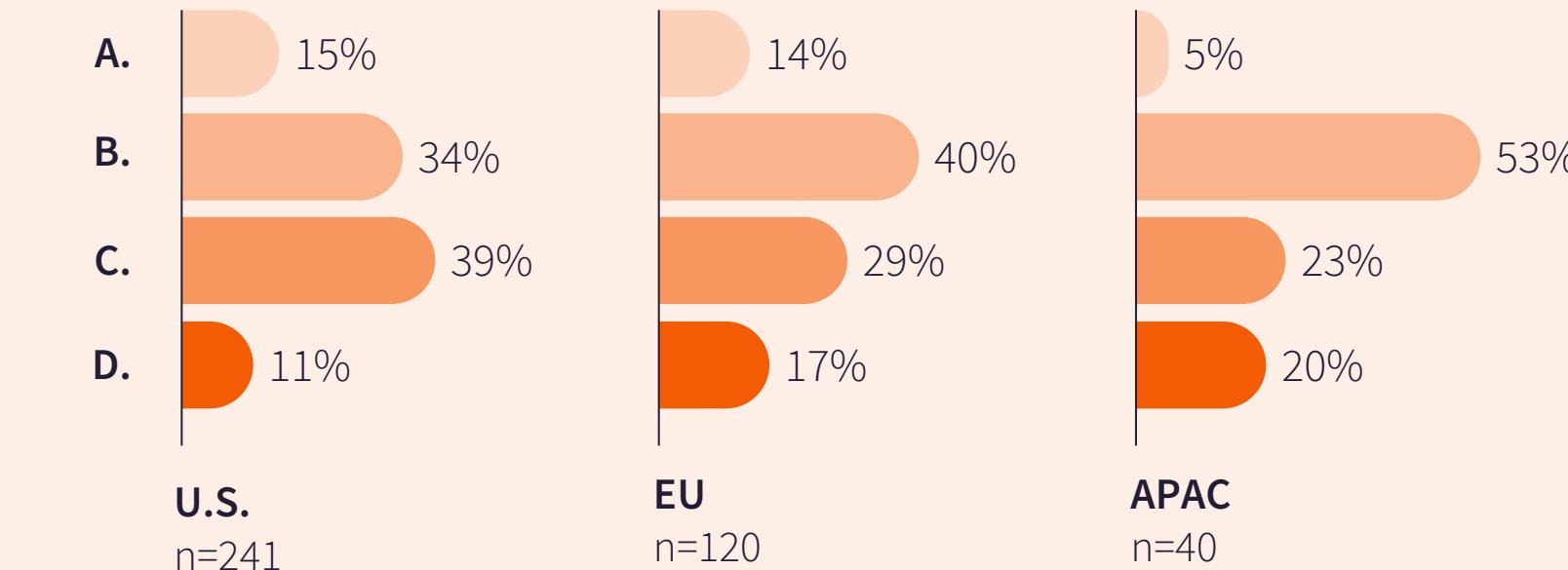
- A. Decentralized/Siloed
- B. Centralized Center of Excellence (CoE)
- C. Hub & Spoke
- D. Embedded

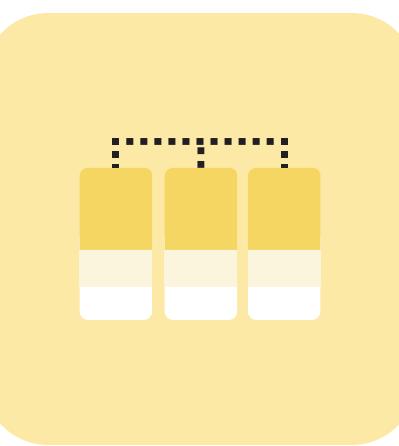
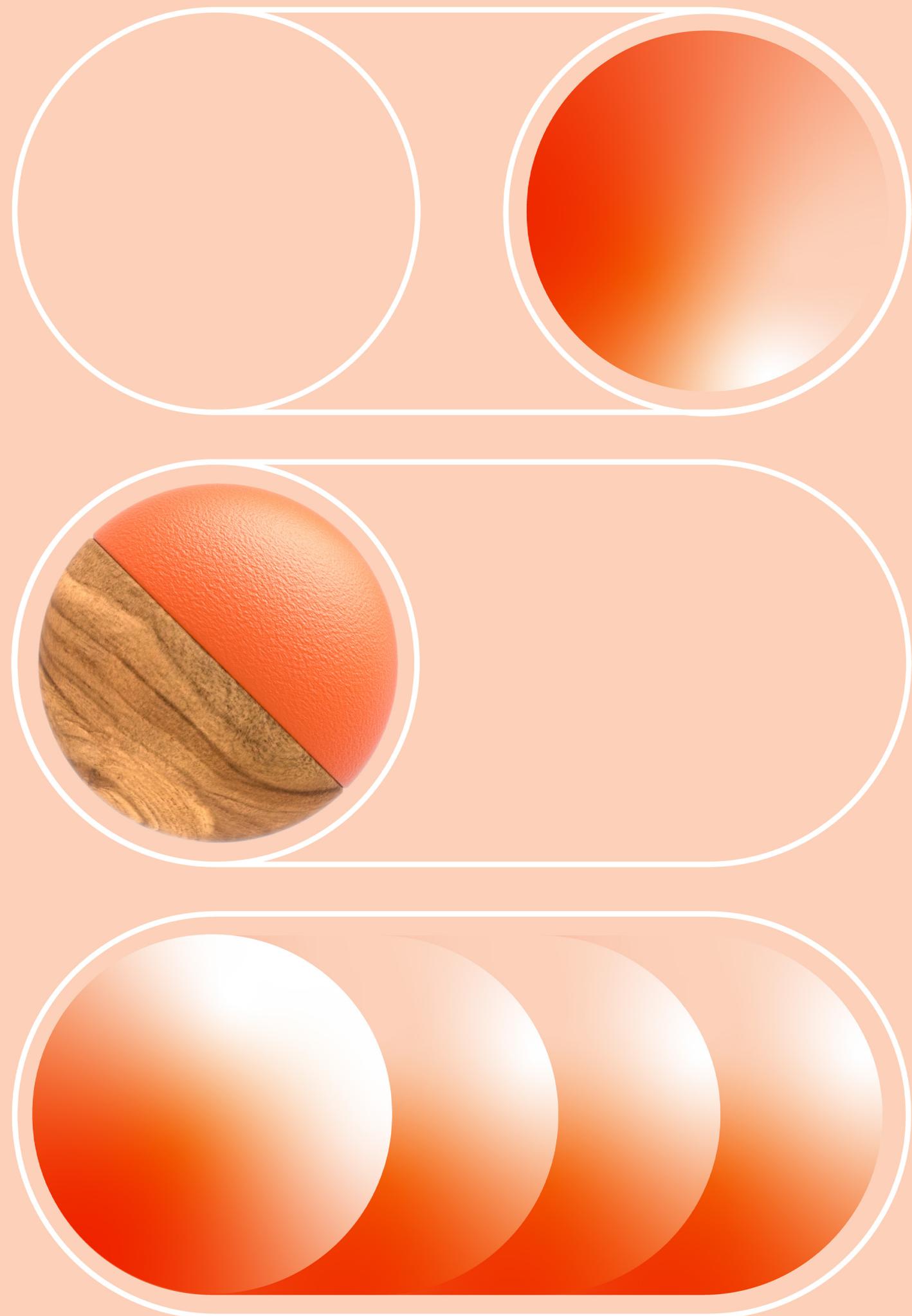


AI Operational Model by Industry



AI Operational Model by Region



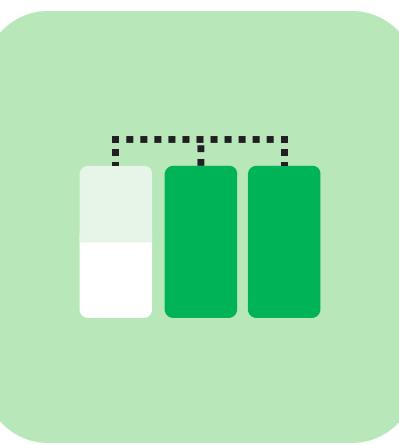


Decentralized/Siloed

Individual teams within a company do their own independent experimentation with AI.

Little to no sharing of infrastructure, data, best practices, or talent.

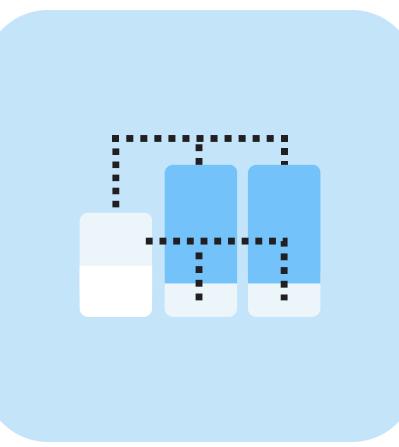
Almost always a temporary operating model, where the goal is to determine if there's enough AI value to further invest.



Centralized Center of Excellence

Known as a CoE, this operating model is designed to jumpstart the adoption of AI within an organization.

A centralized team develops and maintains AI products for many business units and functions.

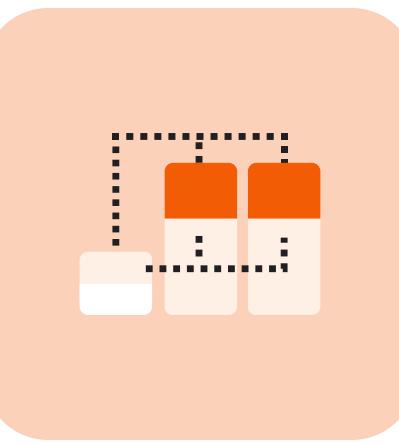


Hub & Spoke

CoE functions get distributed around an organization: AI experts (advanced, graduate-level data scientists) are in the hub, business units and functions are in the spokes, and they collaborate on product development.

Like in a CoE, the hub is responsible for infrastructure, standards, and tracking industry innovation.

However, ownership of AI products shifts to the spokes.



Embedded

Very few central, shared resources and rules such as Responsible AI guidelines, infrastructure, and a few common, curated datasets.

The most decentralized, agile, and innovative structure since many business units and functions are involved, and they are loosely connected by rules and resources.

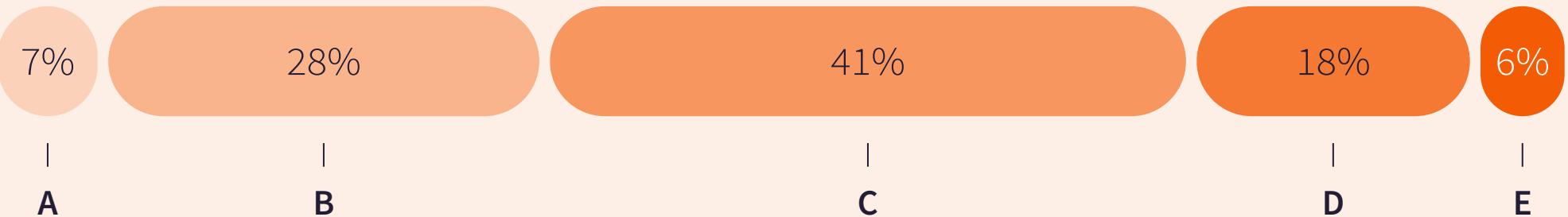
3. RETURN ON INVESTMENT (ROI) METHODOLOGY

Organization has a framework for tracking ROI that is consistently applied or AI initiatives are fully accounted for on our balance sheet, fully quantified and assessed as if it were any other business initiative.

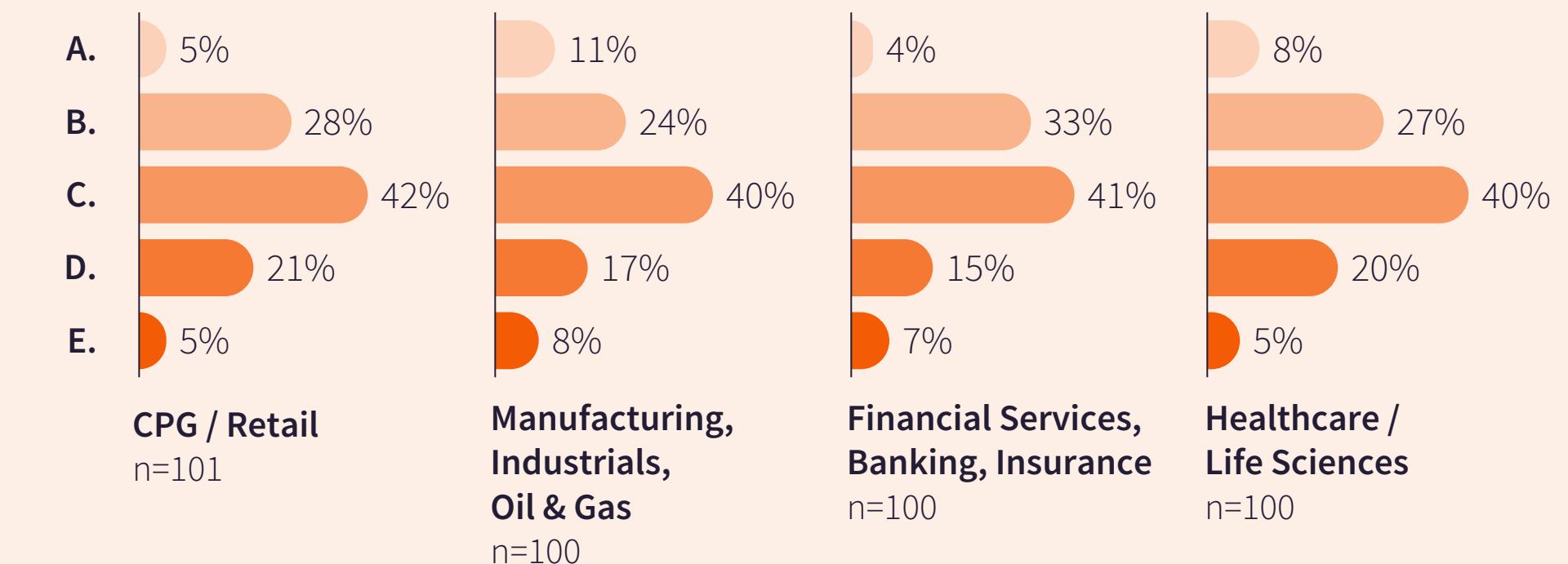
AI ROI Methodology

Q9: How does your organization account for the value delivered with data, analytics, and AI initiatives?

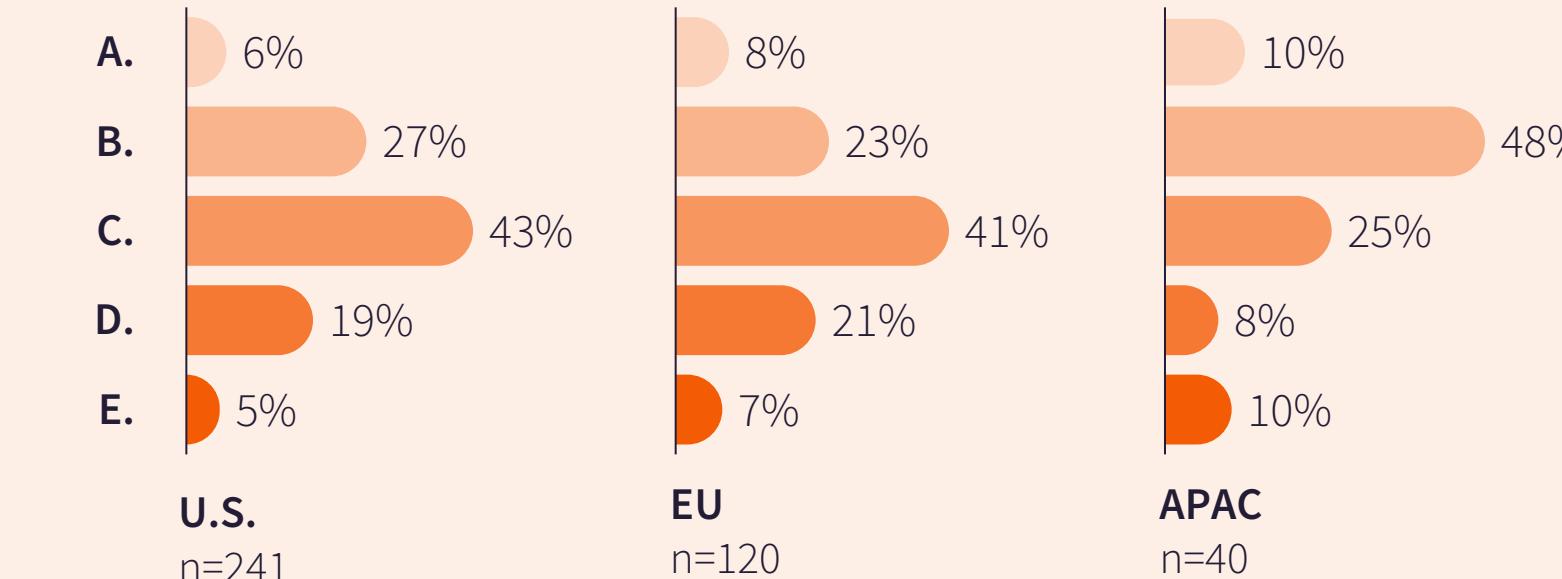
- A. Fully accounted for on our balance sheet, fully quantified and assessed as if it were any other business initiative
- B. We have a framework that is consistently applied
- C. We have a framework that is inconsistently applied
- D. Anecdotally
- E. We don't track value or ROI delivered with AI



AI ROI Methodology by Industry



AI ROI Methodology by Region



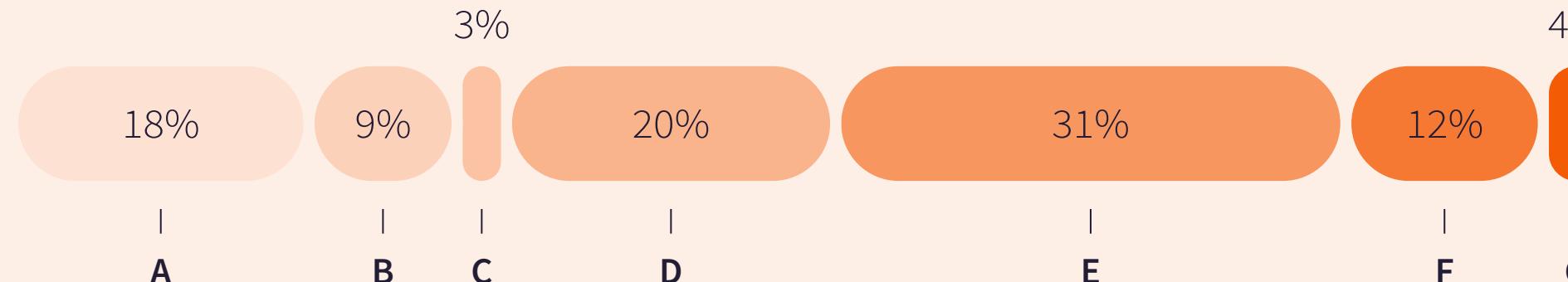
4. ACTUAL ROI

Organization delivers a return of > \$1 for every \$1 spent on analytics and AI initiatives.

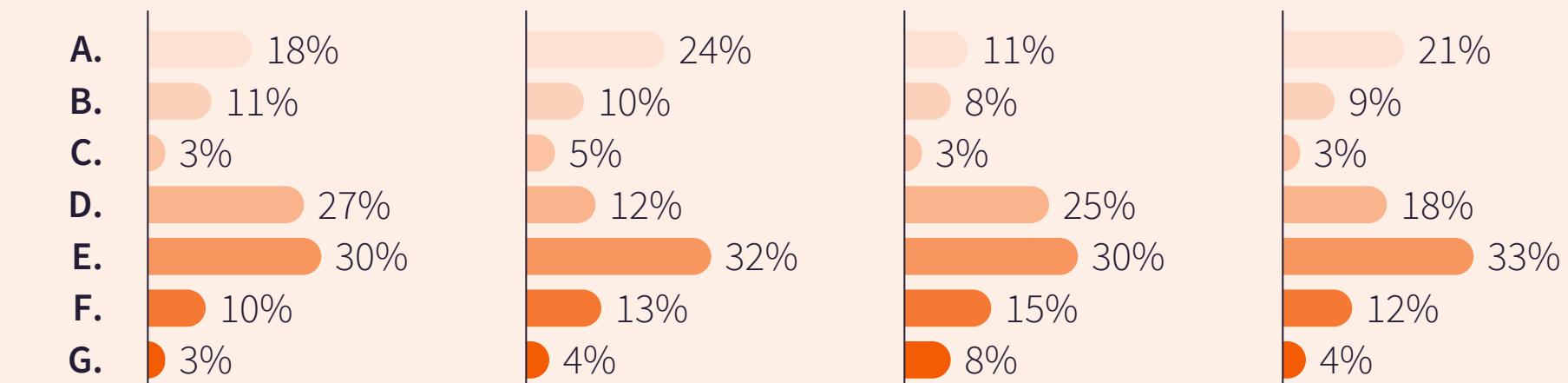
ROI on AI per \$1 Spent

Q10: Approximately what return do you deliver for each \$1 spent on data, analytics, and AI initiatives?

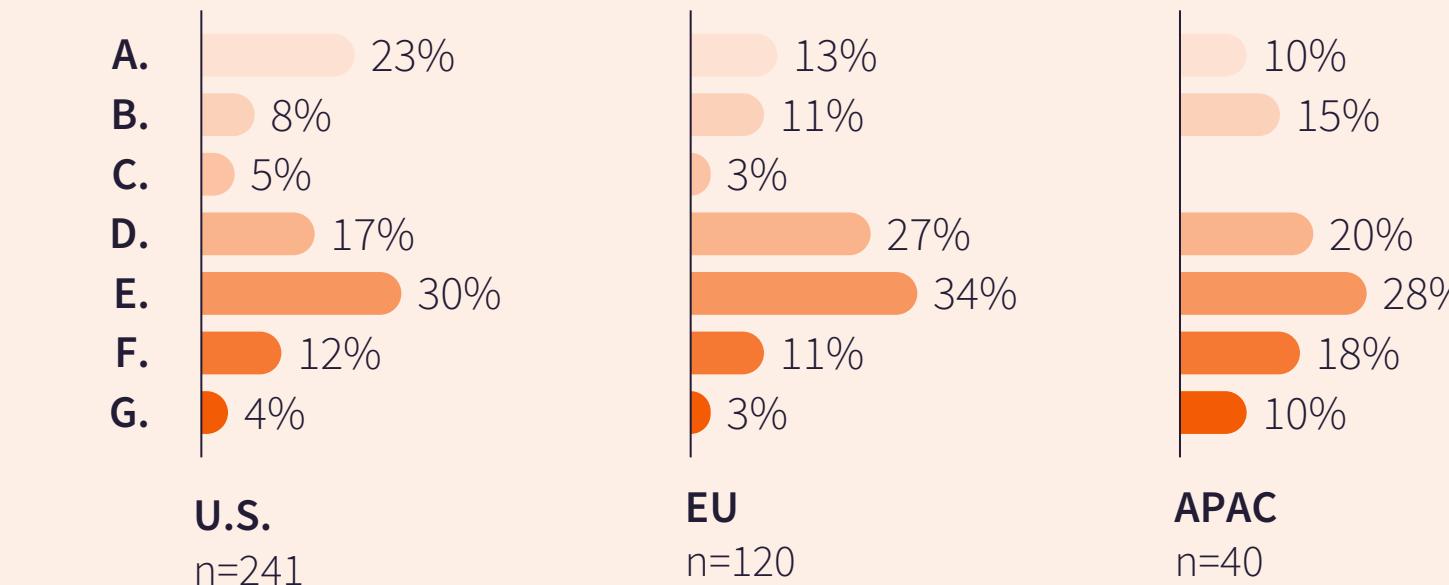
- A. Cannot Discuss
- B. <\$1
- C. \$1
- D. \$1-2
- E. \$2-5
- F. \$5-10
- G. >\$10



ROI on AI per \$1 Spent by Industry



ROI on AI per \$1 Spent by Region

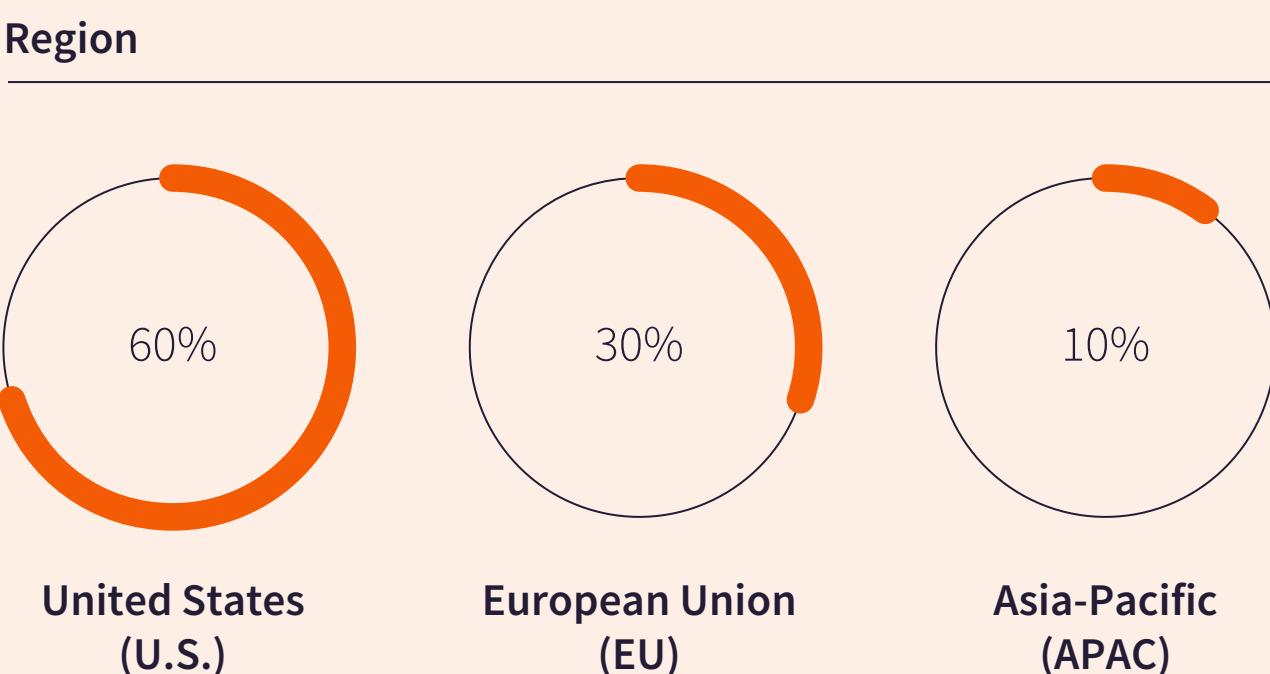


SAMPLE COMPOSITION

Length of Interview (LOI): ~8 minutes

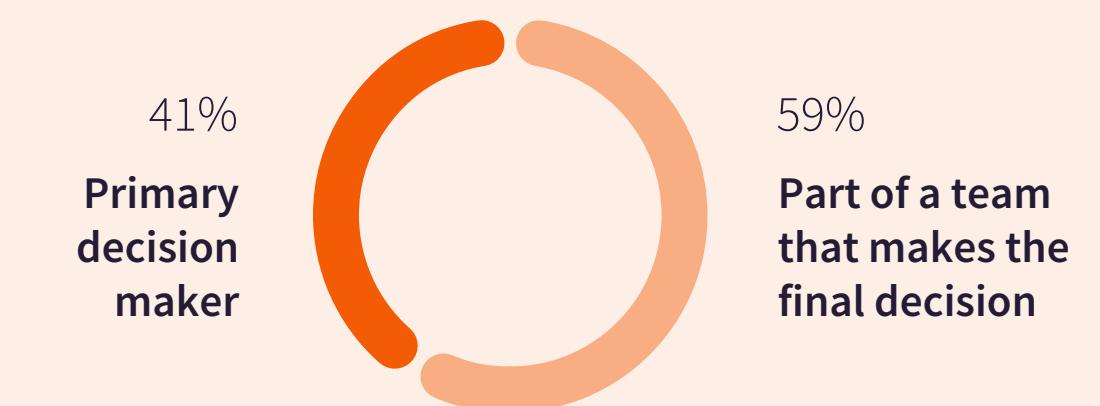
Fielding: April 17, 2024 - May 14, 2024

- Data has been reported among total respondents unless otherwise noted.
- Small base sizes (n<30) are noted with an asterisk (*).

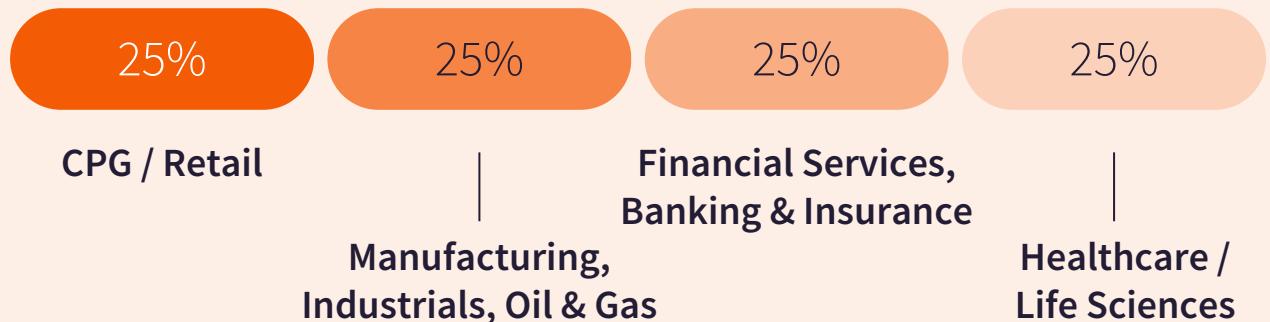


Decision Making Authority

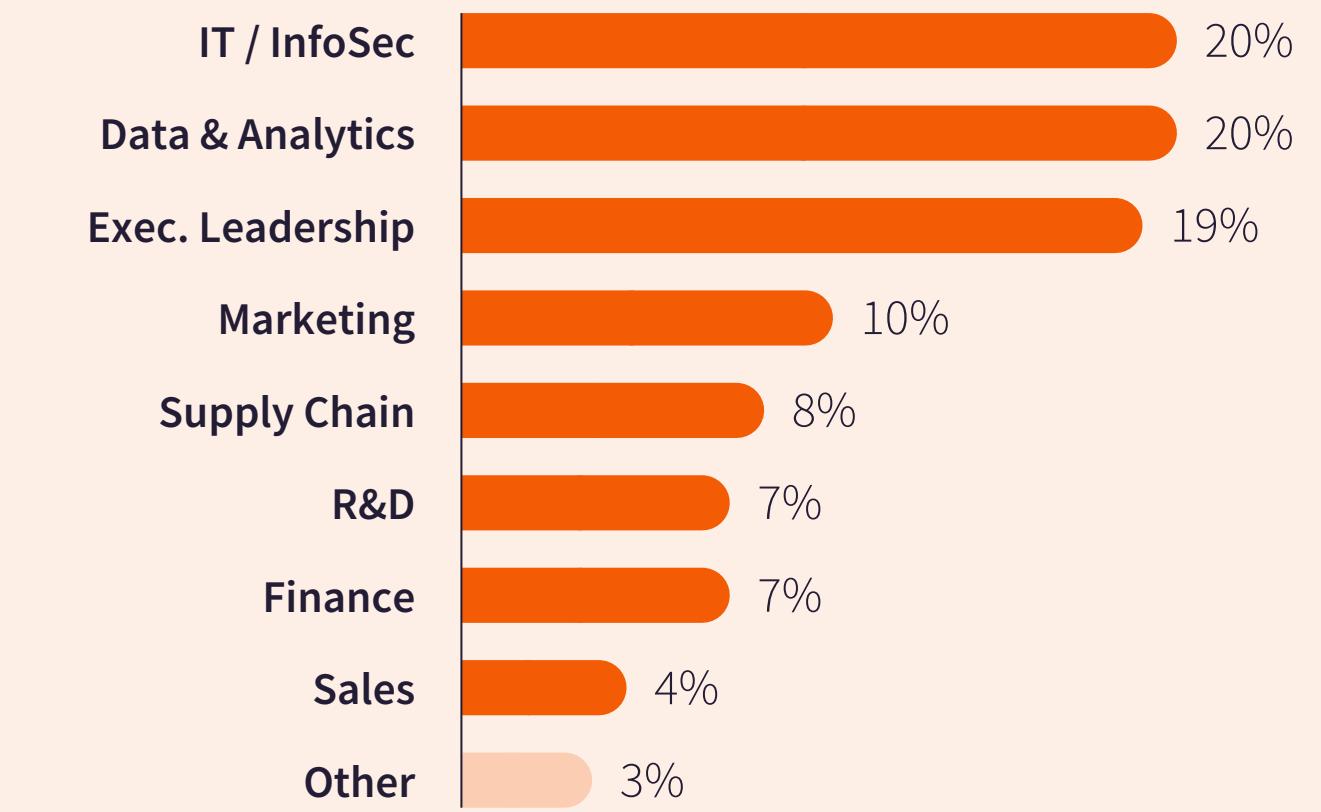
When it comes to selecting and purchasing data, analytics, BI, and/or AI software:



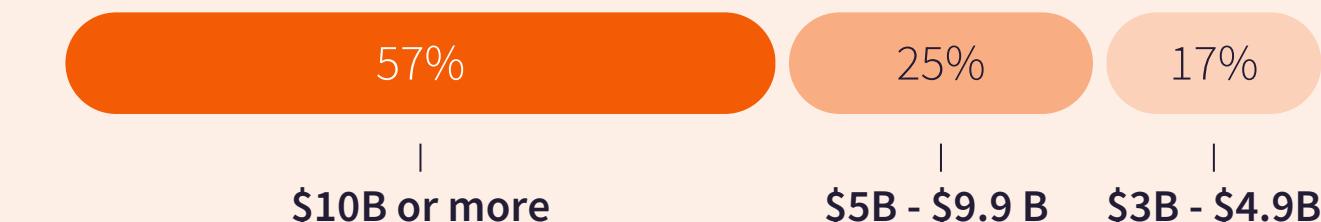
Industry (n=401)



Department (n=401)



Revenue (n=401)



Job Title (n=401)





Dataiku: The Universal AI Platform

Dataiku is the only platform on the market that unifies all your data work, from analytics to Generative AI, for maximum Return on AI (ROAI). Dataiku enables enterprise-wide AI transformation by:

- Connecting to existing infrastructure and integrating with all the latest and greatest technology so organizations can experiment and switch underlying architectures with ease.
- Supporting everyone (from data to domain experts) in working with data, meeting them where they are with no, low, and full-code features.
- Underpinning all processes with the governance and right level of oversight required to leverage AI at scale and make informed decisions about risks and resources.

To learn more, [follow Dataiku on LinkedIn](#).



Databricks

Databricks is the data and AI company. More than 10,000 organizations worldwide — including Block, Comcast, Condé Nast, Rivian, Shell, and over 60% of the Fortune 500 — rely on the Databricks Data Intelligence Platform to take control of their data and put it to work with AI.

Databricks Mosaic AI provides unified tooling to build, deploy, and monitor AI and ML solutions — from building predictive models to the latest GenAI and LLMs. Built on the Databricks Data Intelligence Platform, Mosaic AI enables organizations to securely and cost-effectively integrate their enterprise data into the AI lifecycle. Databricks is headquartered in San Francisco, with offices around the globe, and was founded by the original creators of Lakehouse, Apache Spark™, Delta Lake, and MLflow.

To learn more, follow Databricks on [LinkedIn](#), [X](#) and [Facebook](#).