2022 AI Strategy Priorities

What 100 Data, Analytics and AI Leaders from the US and Canada are Prioritizing as They Update Their Strategies for 2022

IBM   CLOUDERA   C Corinium

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Foreword

Industrializing AI throughout the enterprise is hard! Even after years of investment, few have overcome the many deployment challenges associated with data management, talent acquisition and building trusted AI systems to unlock the technology's potential at scale.

It's the pervasiveness of these challenges that inspired us to commission this research project from *Business of Data* by Corinium Intelligence. Our goal from the start was to benchmark the maturity of enterprise AI strategies in North America today and highlight where data-focused executives are investing to drive these strategies forward in 2022.

If you take just one thing away from our findings, let it be the critical role information architecture (IA) investment plays in the success of an enterprise's AI strategy. (As we say at Cloudera and IBM, there is no AI without IA!)

Modern enterprises need a range of solutions in their data and AI stacks to handle a huge range of processes — from data management to integration, streaming, governance, democratization, analysis and beyond.

Even if an executive was to go out and buy the 'best in class' solution for each of these areas, figuring out how to integrate them all to get the outcome they want would still be easier said than done.

As such, committing to an open-source information architecture and data management ecosystem that uses private, hybrid or multi-cloud technologies can yield clear benefits for data and AI-focused executives. Given that an enterprise's data and AI needs will evolve over time, this is arguably the best path to AI success.

An open, hybrid cloud environment empowers enterprises to experiment with and choose the programming languages, tools, algorithms and infrastructure they need to build data pipelines, get analytics or AI models into production and share insights with company stakeholders.

Together, IBM and Cloudera are building solutions that embrace this philosophy. And as the findings of this report show, it's a philosophy you should embrace in your own enterprise's data and AI strategies. ■

Nadeem Asghar
VP Solutions Engineering and Industry Solutions, Cloudera

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VP WW Hybrid Cloud Build Team, IBM

Executive Summary

T he AI strategy landscape is always evolving. But the past 24 months have been a period of especially rapid change across the globe. Demand for data has surged, as enterprises have pivoted their operating models, accelerated AI-driven business transformations and embraced data-driven insights to navigate a uniquely uncertain climate.

This representative survey of 100 data and analytics executives based in the US and Canada shines a light on the maturity of data and AI functions in the US following the pandemic's disruption and reveals the top AI strategy priorities for data-focused executives as we move into 2022.

Our research focuses on three core areas to benchmark where these executives will be focusing their investments over the next 12-24 months: 1) AI in the modern enterprise, 2) the information infrastructure investments they are making to achieve their AI goals and 3) how they are driving the adoption of AI systems and their integration into business processes.

The findings show that enterprises are seeing significant returns from their AI investments, with 57% of respondents saying their AI initiatives have delivered at least $1 million USD in cost savings or revenue gains. A full 91% have AI models in production and 34% are scaling AI systems across their businesses.

However, information architecture challenges including data silos, a data engineering skills shortage and inefficient data integration processes are holding many AI strategies back. Most respondents are actively addressing these challenges, with 75% saying their budgets for upgrading their information architectures increased in 2021.

At the same time, many respondents are struggling to build on early AI successes to drive enterprise-wide business transformations. Only 23% of them say data is part of their companies' DNA. Change management and data literacy initiatives are proving valuable tools in addressing this challenge and securing buy-in to drive AI strategies forward. ■
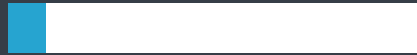
Key Findings

100%

of respondents either are or are planning to use machine learning and rule-based or heuristic models

91%

have AI models in production and 34% have at least started scaling them across their enterprises

41%

say their budgets for information architecture investment increased by at least $500,000 USD in 2021, compared to 2020

9%

say most staff in their enterprises can access relevant insights for their roles via dashboards or self-service portals

23%

say data is part of their companies' DNA and they are constantly innovating with it to drive efficiencies and revenue gains

62%

say a lack of executive support for information architecture investment is holding their strategies back

Source: Corinium Intelligence, 2021

Methodology

This representative survey of 100 data-focused executives was conducted in September 2021. Respondents are all based in the US (80%) or Canada (20%) and have job titles that range from Heads of Department to VPs or SVPs, Directors or C-level executives.

We ensured a broad range of industries were represented in the survey demographic, including the agriculture or farming (9%), construction (10%), financial services (10%), healthcare or pharmaceuticals (10%), hospitality (10%), manufacturing (10%), media or advertising (10%), retail (11%), technology (10%) and utilities or telecoms (10%) sectors.

Respondents were asked 15 questions about their enterprises' AI maturity levels, the information infrastructure investments they're making to achieve their AI goals and how change management and data fluency initiatives are helping them to drive the adoption of AI systems.

Then, we combined our findings with commentary from seven industry experts to put these unique insights into the state of enterprise data operationalization into context. ∎

Contributors

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Sean MacCarthy
Executive Director, Global Analytics and Store Segmentation, Claire's

Everyone is on a Journey to AI in 2022

KEY FINDING

Every executive we surveyed says their enterprise has started its journey toward AI adoption, with 91% saying they have AI models in production and 34% reporting that they're scaling AI systems across their businesses

AI systems are no longer 'hype' in 2021. Our research shows that they've stopped being the future of business and are now a reality for the vast majority of enterprises in the US and Canada.

All 100 of the data and analytics executives from the regions we surveyed say their enterprises have embarked on the path to AI adoption. What's more, 91% say they have AI models in production, 34% say they've at least started scaling them across their enterprise and 7% say AI models have been fully scaled and integrated with their organizations' business processes.

"For the life insurance industry, New York Life is on the forefront of using AI in various processes," reports Glenn Hofmann PhD, Chief Analytics Officer at New York Life. "We now have AI models deployed in various areas of the company, including underwriting, marketing, distribution, service and finance."

He continues: "We have several AI models deployed in each of those areas. These models are accessible via an API in real-time on a daily basis."

AI projects are also delivering significant returns. Of the executives we surveyed, 84% say their AI initiatives have delivered at least $500,000 USD in cost savings or revenue gains, with 57% saying they've generated at least $1 million USD and some saying they've generated more than $10 million USD.

Of course, these findings also suggest that realizing the potential of AI at scale is still a way of for most businesses. But they do show that AI is reshaping how enterprises operate and looks set to continue to drive further business transformations in 2022 and beyond. ▶

$1m +

Is the amount 57% of our respondents have generated in cost savings or revenue gains with their AI initiatives

Source: Corinium Intelligence, 2021

Enterprises Plan to Expand Their AI Initiatives

Several of the executives in our community say the COVID-19 pandemic forced them to pivot their strategies and postpone previously planned AI projects to focus on short-term business needs.

"A lot of [my strategy] got stalled because of COVID-19," recalls Bryan Lari, Executive Director, Analytics and Innovation at Connecticut-based healthcare facility Stamford Health. "One of the things we had to do is drop everything because, being in the Northeast, we're one of the hardest hit areas."

But our research suggests that many executives managed to press onward with their AI strategies despite the pandemic disruption, and others are looking to restart their AI investment plans as they move into 2022.

Graph models, agent-based models, traditional models and rule-based or heuristic models are the most commonly used in business today. Respectively, 53%, 52%, 43% and 39% of the executives we surveyed say they have these in production in their enterprises.

How Executives are Building AI-Ready Organizations

Which of the following do you think would increase the pace of data-driven innovation in your organization?

● We have already done this   ● Doing this would help   ● Not Applicable
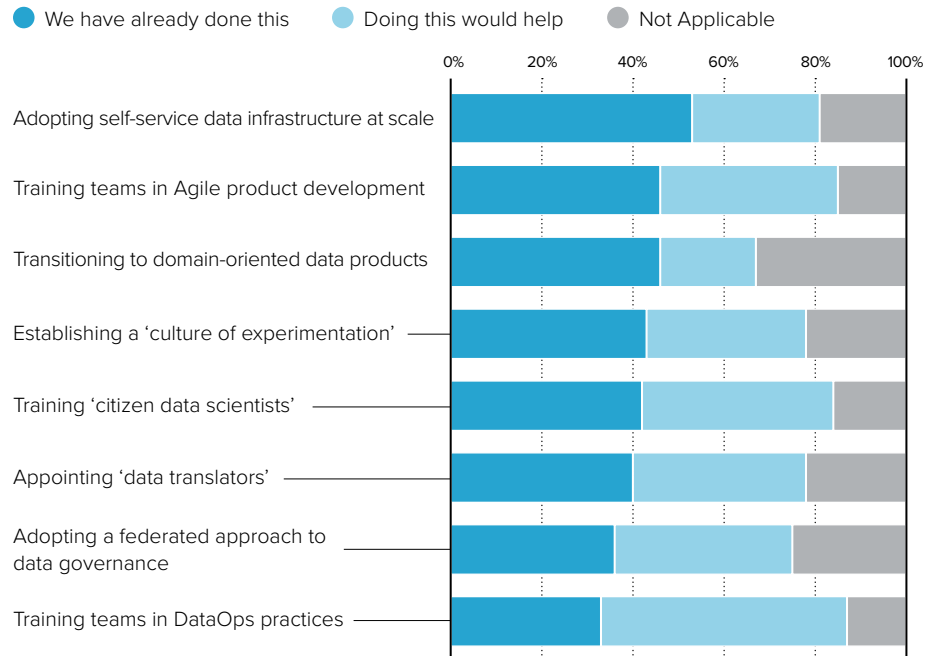
Source: Corinium Intelligence, 2021

But a different picture emerges when we look to the future. All the executives we surveyed plan to use machine learning models eventually and 59% expect to have them in production within 12 months.

Meanwhile, 78% expect to have rule-based or heuristic models in production in their enterprises within 12 months and 78%, 75%, 67% and 64% say the same about graph models, agent-based models, traditional models and linguistic models (such as NLP), respectively.

"We're continuing to expand our footprint of who we support at New York Life with data science," says Dr Hofmann. "We've also perfected the deployment of models. Last year we started deploying models on a new platform and that was successful. This year, we've scaled that up and have deployed a much larger number of models."

These findings paint a clear picture of how executives plan to integrate more AI technologies and systems into their companies' business processes in the coming months and years. ▶

"We're continuing to expand our footprint of who we support at New York Life with data science"

Glenn Hofmann
Chief Analytics Officer, New York Life

How Enterprises can Infuse AI into Business Processes

As enterprises across North America 'climb the ladder' toward delivering AI capabilities at scale, their success will depend on putting the right information architecture in place and cultivating a business culture that actively encourages using AI and advanced analytics for process optimization.

As Paul Pallath PhD, Global Technology Head of Data, Analytics and AI at Levi Strauss & Co, says, enterprises must be able to trust both AI models in production and the data that feeds them if they want to embed AI systems into business processes at scale.

Dr Pallath says: "Just as you need to have trusted data, you also need to have trusted models, and [it's about] how you create those infrastructure

"There's a long journey between proof-of-concept and deriving business value"

Maryam Ashoori PhD
Director, Product Management, IBM

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automation frameworks that allow you to do be confident that the models are performing as intended."

"In terms of maturity, from my perspective, [companies] have a long way to go," adds Maryam Ashoori PhD, Director, Product Management at IBM. "There are certain sectors and industries that are pretty advanced, but some of them are not. There's a long journey between proof-of-concept and deriving business value."

For most, there is a long way to go. But it's clear the business community is now committed to reaching AI maturity and that enterprises are taking strides toward making AI systems part of their DNA. Executives who wish to keep up with the pace of change will need to invest in putting the precursors necessary to climb the AI ladder in pace in the coming months. ■
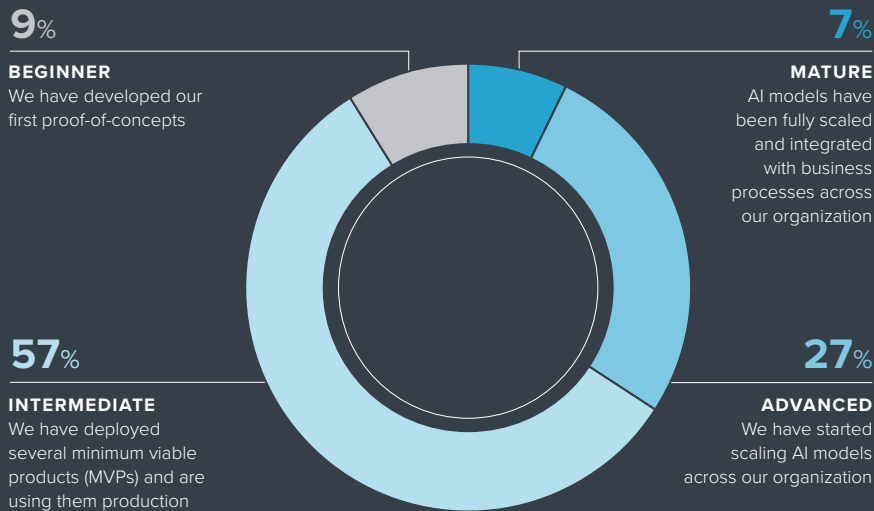
Enterprises are Seeing Big Returns on Their AI Investments

KEY FINDING

Most enterprises have seen at least $1 million USD in returns from their AI initiatives and plan to expand their programs to include new technologies in the coming months
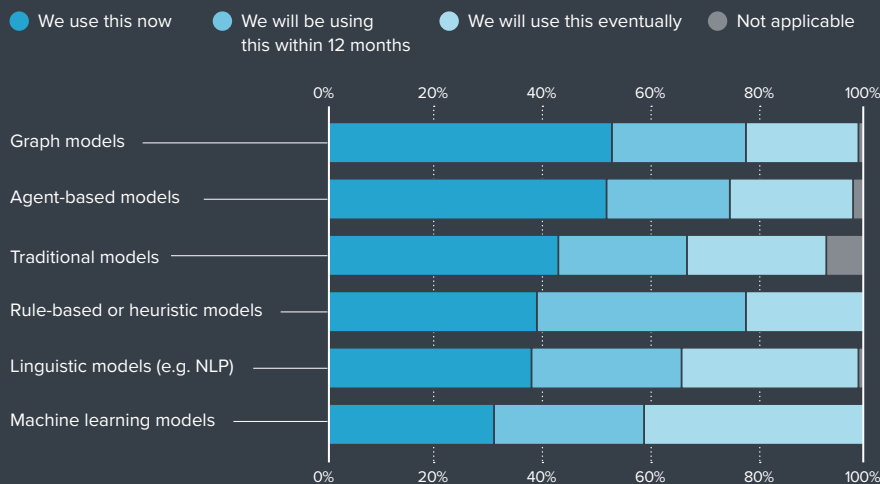
Enterprises are Committed to AI Adoption

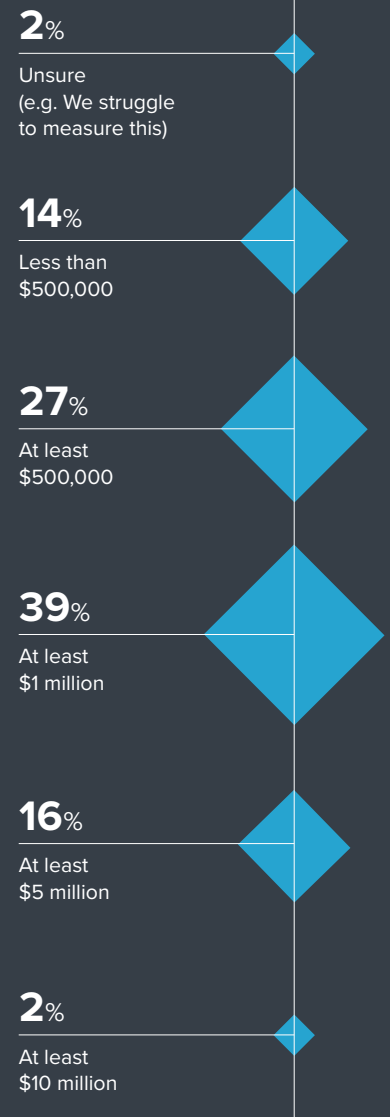To what extent has your enterprise scaled its AI capabilities and made AI-driven processes part of its DNA?

9%
BEGINNER
We have developed our first proof-of-concepts

7%
MATURE
AI models have been fully scaled and integrated with business processes across our organization

57%
INTERMEDIATE
We have deployed several minimum viable products (MVPs) and are using them production

27%
ADVANCED
We have started scaling AI models across our organization

AI is Generating Significant Returns on Investment

How much have your enterprise's AI and analytics initiatives generated in efficiency savings and revenue gains to date?

2%
Unsure
(e.g. We struggle to measure this)

14%
Less than $500,000

27%
At least $500,000

39%
At least $1 million

16%
At least $5 million

2%
At least $10 million

AI Leaders are Using a Wide Range of Technologies

Which of the following are in production in your enterprise?

● We use this now   ● We will be using this within 12 months   ● We will use this eventually   ● Not applicable

	0%	20%	40%	60%	80%	100%
Graph models						
Agent-based models						
Traditional models						
Rule-based or heuristic models						
Linguistic models (e.g. NLP)						
Machine learning models						

Source: Corinium Intelligence, 2021

Key Investments to Enable AI-Driven Business Transformations

KEY FINDING

Enterprises are investing in upgrading their information architectures. But data silos and inefficient data integration processes continue to create challenges for data-focused executives

AI systems don't operate in a vacuum. They depend on being fed high-quality, unbiased data to ensure their outputs are accurate. What's more, that data needs to be governed effectively to ensure compliance with AI regulations and acceptable data quality.

Many enterprises still don't have the information architecture they need in place to facilitate this. But our survey of 100 North American data and analytics executives suggests that most enterprises are making strategic investments to put the infrastructure they need for AI success in place.

In fact, 75% of our survey respondents say their budgets for upgrading their information architectures increased in 2021. What's more, 41% report an increase of at least $500,000 USD and 16% say they've been allocated at least $1 million USD more than they were in 2020.

Bharti Rai, VP and Head, Commercial Acceleration (Data, Insights and Analytics, Commercial Operations) at Novartis Pharmaceuticals US, reports: "[I've been] transforming everything from the basics and the plumbing to getting really advanced in data science, to being able to use insights to power and move the business."

"During COVID-19 times, we set up the entire AWS data science platform," adds Paul Pallath PhD, Global Technology Head of Data, Analytics and AI at Levi Strauss & Co. "Now, we have more than 2,000 employees either using the platform or working on the platform to deliver value from the data." ▶

"Data within organizations are like cities within a country. Without highways, it's very difficult to make the country work"

Maryam Ashoori PhD
Director, Product Management, IBM

The State of Enterprise Information Architecture

There is no 'one size fits all' information ecosystem that enterprises should be looking to implement. But our research has uncovered some core investments that data-focused executives have made to ensure they have the right information architecture in place to achieve their goals.

"Data exists in isolated cities within your organization," says Maryam Ashoori PhD, Director, Product Management at IBM. "To connect them and make sense of everything, you need to establish highways between them."

Of the executives we surveyed, 39% say AI workbenches are part of their enterprises' AI architectures, 38% say their

"We are at the phase where customers have their data coming in from multiple sources and gets stored in multiple silos"

Maryam Ashoori PhD
Director, Product Management, IBM

companies have enterprise knowledge graphs, 36% say theirs have analytics or BI platforms and 34% say they use containers to deploy data products as microservices.

At the same time, 30% report having data catalogues, 30% say their enterprises have an AI features library, 29% say theirs have data or analytics self-service tools and 29% report having enterprise data lakes.

Meanwhile, 26% of respondents say their companies have implemented data virtualization layers, 24% say theirs have enterprise data marts, 22% have enterprise data warehouses and 16% say theirs have enterprise object stores.

These findings suggest that some enterprises may have rushed to invest in AI technologies without putting the fundamental architecture in place to supply AI systems with high-quality data. Information architecture and AI tools must be deployed in parallel to ensure models can deliver robust results.

"We are at the phase where customers have their data coming in from multiple sources and gets stored in multiple silos," Dr Ashoori says. "It's hard for them to get a cohesive view of what it is they have and where it is. Enterprises that lack the right data governance and strategy also face additional challenges in consuming data and unlocking its value." ▶

Few Enterprises Have Mature Data Governance Practices

Which of the following statements best describes your organization's current level of data governance maturity?

0%

BEGINNER
Executives recognize the importance of data governance, but we still lack a framework and processes to ensure good data governance

7%

MATURE
We have automated processes in place to streamline our data governance practices and ensure staff can fulfil their roles comfortably

58%

INTERMEDIATE
We have a core framework in place, but struggle with data silos and a lack of company-wide awareness of data governance responsibilities
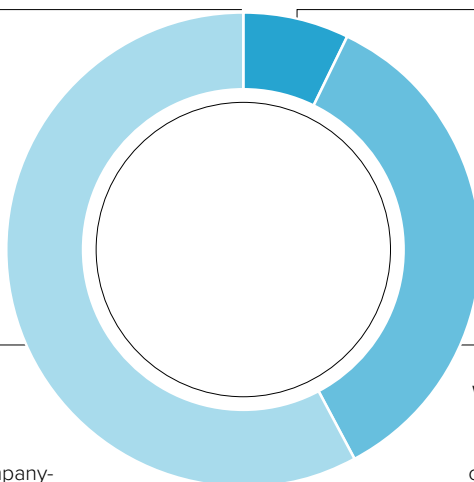
35%

ADVANCED
We have a data catalog in place, along with assigned data owners or stewards, but manual processes mean data governance processes can be labor intensive

Source: Corinium Intelligence, 2021

Laying the Foundations for AI-Driven Business

Implementing a modern, cloud-based information architecture has been a priority for many enterprises over the past 24 months. In fact, our research shows that it's now rare for a company to store all its data on-premises.
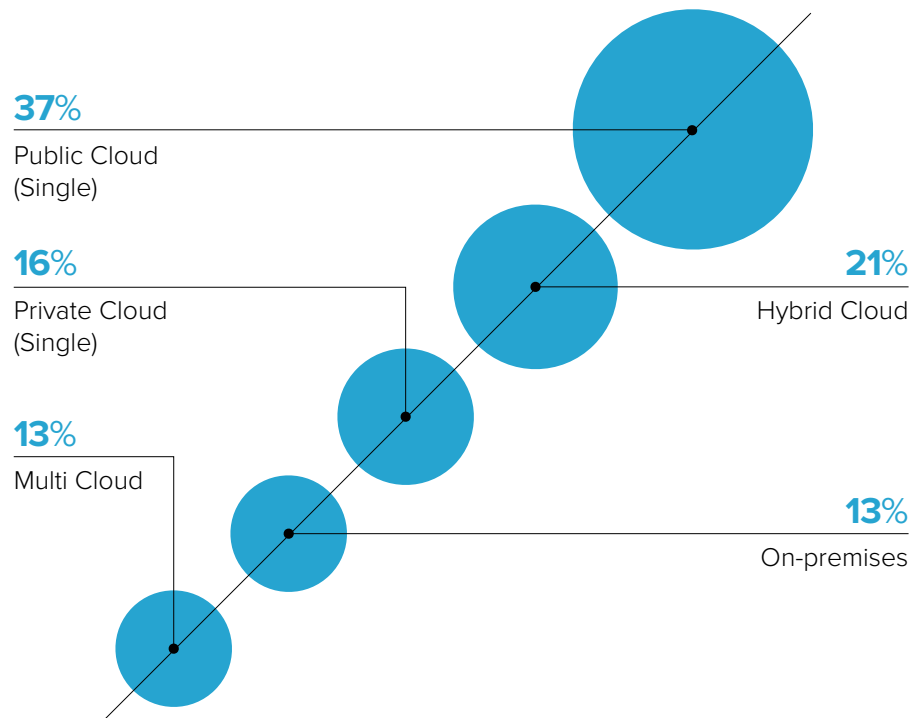
While 13% of respondents do store their data solely on-premises, the rest keep at least some data in the cloud. Of those, 21% have a hybrid data infrastructure that includes some on-premises storage, 16% store their data on a private cloud and 13% have adopted a multi-cloud storage ecosystem.

"We have a new emphasis on data infrastructure," says Glenn Hofmann PhD, Chief Analytics Officer at New York Life. "Our near-term focus is to move more towards a cloud infrastructure."

This cross-industry migration to the cloud has sped up in the wake of COVID-19 and will play a key role in helping enterprises achieve their AI ambitions by helping them to access AI tools and functionality. However, a range of challenges are still hampering data and analytics leaders' efforts to build AI-friendly ecosystems in the cloud.

Cloud-Based and Hybrid Infrastructure is Now the Norm

Which of the following best describes the type of information architecture your organization has today?

37%
Public Cloud (Single)

16%
Private Cloud (Single)

13%
Multi Cloud

21%
Hybrid Cloud

13%
On-premises

Source: Corinium Intelligence, 2021

Inefficient data governance processes and trouble unifying company data in a single platform are proving particularly tough hurdles to overcome for many data-focused executives. Respectively, 38% and 37% of survey respondents describe these as 'very challenging'.

But our survey shows that insufficient executive buy-in, a lack of data pipeline automation, trouble delivering data products in a timely manner, manual data quality management processes and trouble finding staff with the right stills are also holding up enterprise data strategies. Respectively, 62%, 60%, 60%, 59% and 56% of respondents describe these as at least 'fairly challenging'.

"Recruiting leading talent remains a top priority," Dr Hofmann agrees. "We have an ongoing, concerted effort to continue to hire strong data scientists, MLOps engineers and project managers at all levels to support our efforts." ▶

"Our near-term focus is to move more towards a cloud infrastructure"

Glenn Hofmann PhD
Chief Analytics Officer, New York Life

business of **data**

Overcoming Information Architecture Challenges

While data-focused executives are investing in their enterprises' information architectures, our findings suggest that most still lack the enterprise-wide 'data highways' needed to ensure AI systems perform reliably and consistently at scale.

Some of the executives we interviewed suggest that this may reflect the learning curve many companies had to go through at the start of their AI journeys. It's only now that executives understand what it takes to deploy AI systems effectively at scale that they are going back and investing in the fundamental parts of their data ecosystems.

"My personal perspective is that, in the past, they allocated budget to

"In the past, [executives] allocated budget to AI. But then, when they dived into that, they discovered that what they really need to start is IA"

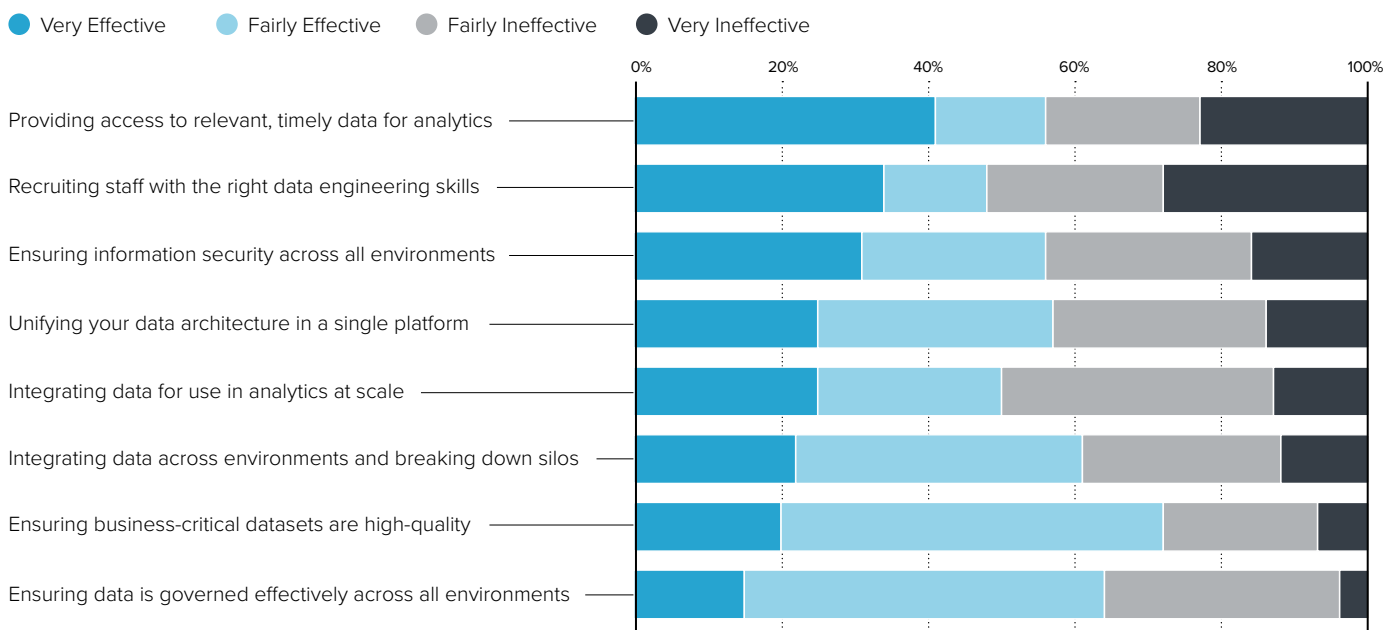**Maryam Ashoori PhD**
Director, Product Management, IBM

AI," says Dr Ashoori. "But then, when they dived into that, they discovered that what they really need to start is IA [information architecture]."

"We are at the point that we understand what it means to start adopting AI," she adds. "We understand the maturity model. So now, we have our strategy and we are ready to execute it."

This may not be true for everyone. But it is clear that data infrastructure challenges are holding many enterprise AI strategies back. To overcome these obstacles, executives must focus their investments on projects geared toward breaking down data silos and improving enterprise information management processes. ■

Many Information Management Processes are Ineffective

Please rate the processes your enterprise currently has in place for each of the following aspects of information management

● Very Effective   ● Fairly Effective   ● Fairly Ineffective   ● Very Ineffective

Providing access to relevant, timely data for analytics
Recruiting staff with the right data engineering skills
Ensuring information security across all environments
Unifying your data architecture in a single platform
Integrating data for use in analytics at scale
Integrating data across environments and breaking down silos
Ensuring business-critical datasets are high-quality
Ensuring data is governed effectively across all environments
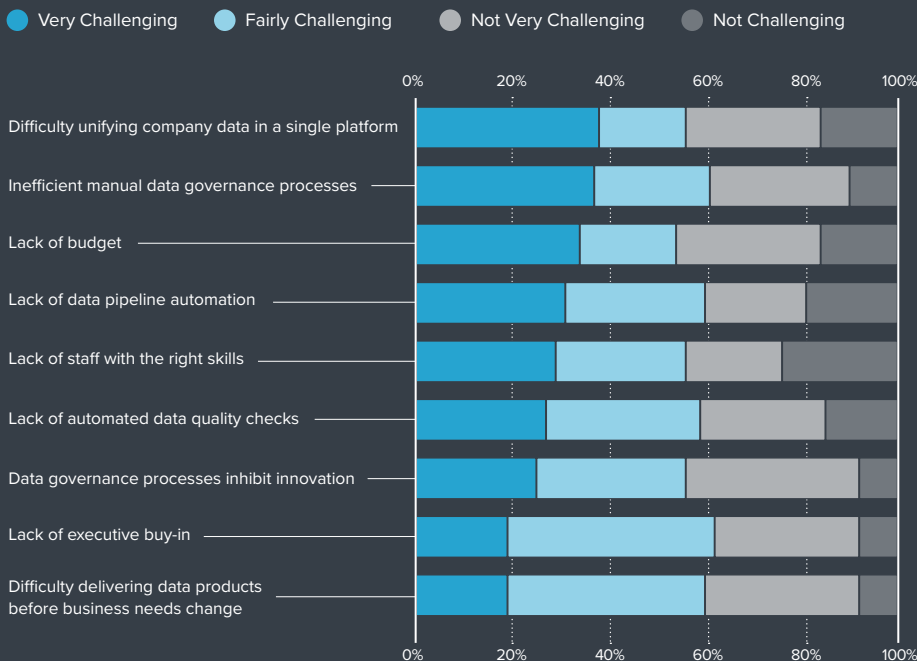
Source: Corinium Intelligence, 2021

Enterprise Information Architecture Investments are Soaring

KEY FINDING

Executives increased their information architecture investments substantially in 2021 to address the challenges facing their data and analytics strategies
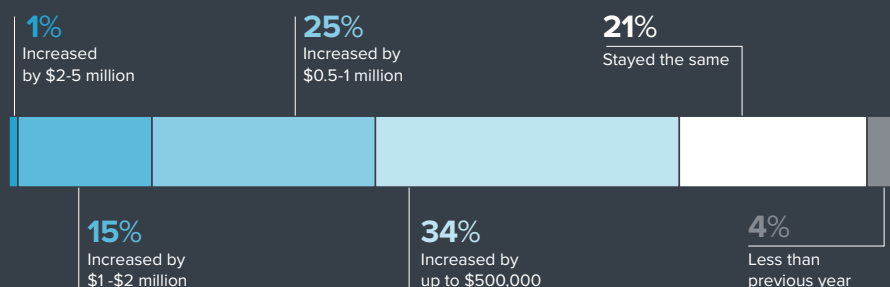
Information Architecture Challenges are Universal

Please rate the following potential information architecture barriers as they apply to your enterprise's data strategy

● Very Challenging   ● Fairly Challenging   ● Not Very Challenging   ● Not Challenging

Difficulty unifying company data in a single platform

Inefficient manual data governance processes

Lack of budget

Lack of data pipeline automation

Lack of staff with the right skills

Lack of automated data quality checks

Data governance processes inhibit innovation

Lack of executive buy-in

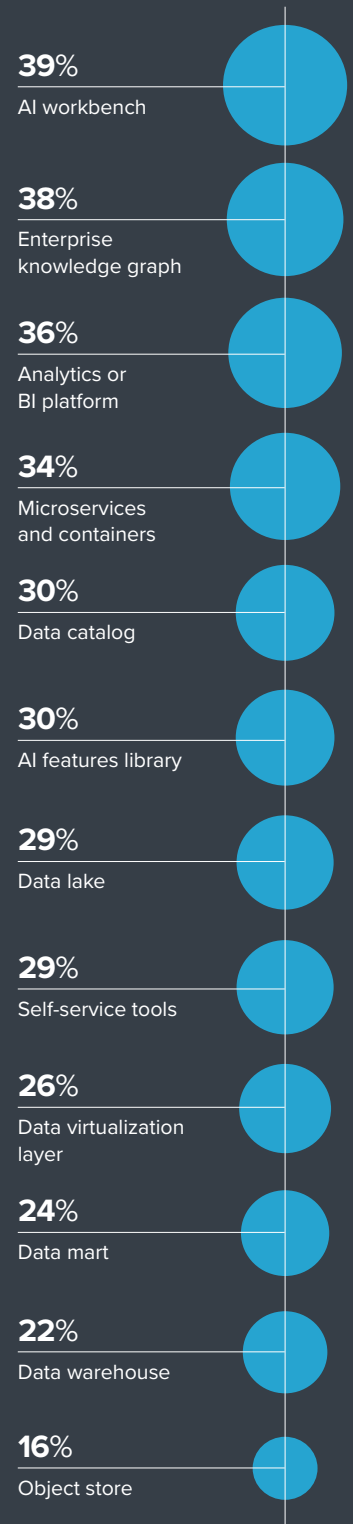Difficulty delivering data products before business needs change

Executives are Investing to Address These Challenges

How does your enterprise's planned investment in upgrading its information architecture this year compare to its budget for this in 2020?

1% Increased by $2-5 million

25% Increased by $0.5-1 million

21% Stayed the same

15% Increased by $1-$2 million

34% Increased by up to $500,000

4% Less than previous year

Each Enterprise's Information Architecture is Unique

Where would you say your organization currently is on the path to becoming a data-driven enterprise?

39% AI workbench

38% Enterprise knowledge graph

36% Analytics or BI platform

34% Microservices and containers

30% Data catalog

30% AI features library

29% Data lake

29% Self-service tools

26% Data virtualization layer

24% Data mart

22% Data warehouse

16% Object store

Source: Corinium Intelligence, 2021

Driving Business Culture Change and AI Adoption in 2022

KEY FINDING

With the basic tools for data democratization in place in their organizations, many data-focused executives are prioritizing staff enablement and data literacy

Technology-focused executives will often approach business transformation projects as if they're technology challenges. But in reality, the human side of business transformation is every bit as important, and those who neglect it often find their strategies are met with strong headwinds.

Just as enterprises need strategies for replacing outdated technologies with modern ones that enable new data-driven ways of working, executives also need plans in place to replace outdated business processes with ones that use these new technologies.

This journey starts with building data and analytics teams with the right skills. Yet, 52% of the 100 executives we surveyed describe their enterprises' processes for recruiting data engineering talent as 'ineffective'.

"If you look into technology companies or top Silicon Valley companies, they have the ability to hire a lot of top data scientists that they can just hire in order to bring the right talent to the company," says Maryam Ashoori PhD, Director, Product Management at IBM. "Not every company has the luxury of doing that."

She adds: "So the challenge is, where are the skills coming from? How can I bridge the skills gap? And what are my options when I can't just go and hire the right talent?"

Similarly, while most data leaders have taken steps to enable staff to self-serve their own data-driven insights, few have established data- or AI-driven processes across their organizations. Only 23% of our respondents say data is part of their companies' DNA. ▶

> *"Outside of tech, you don't necessarily have the power to pay 'top of the market' rates to attract highly-skilled data scientists"*
>
> **Maryam Ashoori PhD**
> Director, Product Management, IBM

"We've had meaningful successes with AI," comments Glenn Hofmann PhD, Chief Analytics Officer at New York Life. "The evolution to AI being more fully integrated into the culture of the company is underway."

To ensure that new technologies are adopted and used to their fullest potential, enterprises must ensure they have effective practices in place to arm staff across the enterprise with the right data and analytics skills, as well as the right tools.

Most Staff Still Lack Access to Data-Driven Insights

Providing staff with timely, relevant, data-driven insights is an essential precursor for AI-driven business transformation. So, it's encouraging that all the executives we surveyed say their enterprises have put a core data governance framework in place and are providing company executives with data-driven insights to inform their decision-making.

Meanwhile, 51% say 'early adopters' or 'data champions' in the business can access data-driven insights via dashboards or self-service portals and a further 9% say most staff in their enterprises can access relevant insights for their roles via dashboards or self-service portals.

Few Enterprises Have Truly Democratized Their Data

Which of the following best describes the current level of data democratization in your enterprise?

9% Advanced democratization

0% No democratization

51% Partial democratization

40% Limited democratization
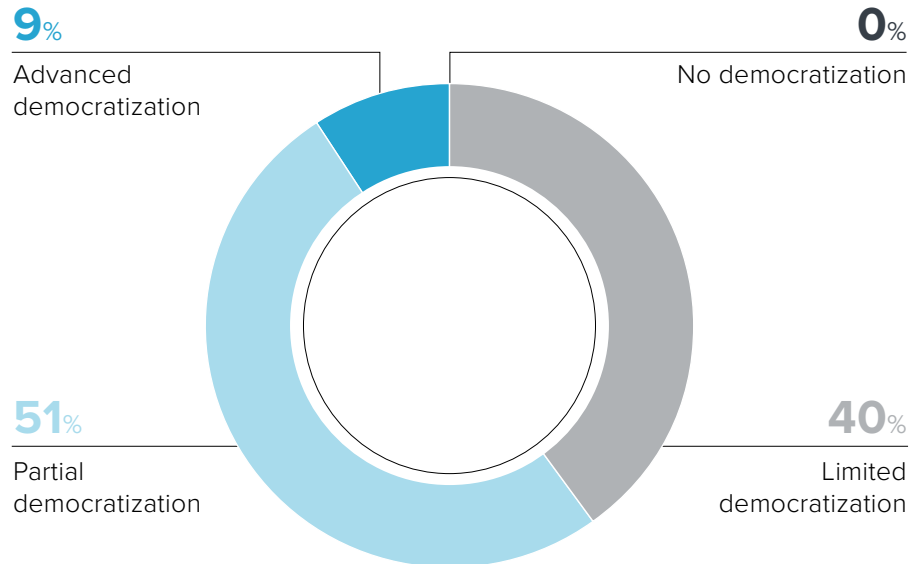
Source: Corinium Intelligence, 2021

"The biggest evolution since I got here was really enabling people to self-serve," says Sean MacCarthy, Executive Director, Global Analytics and Store Segmentation at Claire's. "It was building the tools out to be able to do that, so we could free up our own time to do the more strategic things that leadership wanted us to do."

However, this does mean that most staff still lack access to relevant insights for their roles in 91% of the enterprises represented in our survey.

Plus, 58% of respondents acknowledge that data silos and a lack of company-wide awareness of data governance responsibilities mean not all their data is well-governed at present. Just 35% of respondents report having assigned data owners or stewards.

"When you look at data governance, data quality and data lifecycle management, I think there's not a lot of understanding around, 'What exactly does that mean?'" says Vijay Venkatesan, Chief Analytics Officer at health insurance firm Horizon Blue Cross Blue Shield of New Jersey. "Part of this conversation is to really say, 'How do we explain the value of doing those quality checks [and] those enforcement measures?'" ▶

"Part of this conversation is to really say, 'How do we explain the value of doing those quality checks?"

Vijay Venkatesan
Chief Analytics Officer, Horizon Blue Cross Blue Shield of New Jersey

Staff Enablement is a Priority for Data Leaders

These findings point to a need for greater awareness of the data lifecycle and how to use data to aid decision-making in enterprise settings today. Linking staff KPIs to data-driven tools and metrics may also have a role to play, here.

Staff won't take advantage of data-driven tools if they lack the skills and motivation to use them, and they may ignore data governance processes if they don't grasp why they're important. Meanwhile, executives won't allocate resources to transforming their business units if they aren't fully bought into to the idea of AI-driven business transformation.

Encouragingly, our research shows that many data-focused executives are aware of these facts and are investing in a range of initiatives to upskill their colleagues for the future of work.

"If I can't fish for everybody, I can teach a lot of people to fish"

Sean MacCarthy
Executive Director, Global Analytics and Store Segmentation, Claire's

Of the executives we surveyed, 68% have provided basic data literacy training for staff across their enterprises, 54% have provided enablement training for the end-users of data-driven tools and 47% have provided advanced training for some staff members to create 'citizen data scientists'.

"From the time I started, we basically introduced the concept of office hours," MacCarthy says. "We've been providing those office hours such that we're there to provide feedback and answers, whether it's an Excel question or a data warehousing solution question."

"If I can't fish for everybody, I can teach a lot of people to fish," MacCarthy adds. "It's fascinating to see the difference in level and capabilities of people who come to those office hours asking questions. And I think it's provided real value for the organization over the last 24 months."

Interestingly, just 22% of respondents say they'd provided data literacy training to their executive-level colleagues. Yet, those who have report that these training sessions have helped them to secure stronger buy-in for data-driven initiatives from these executives.
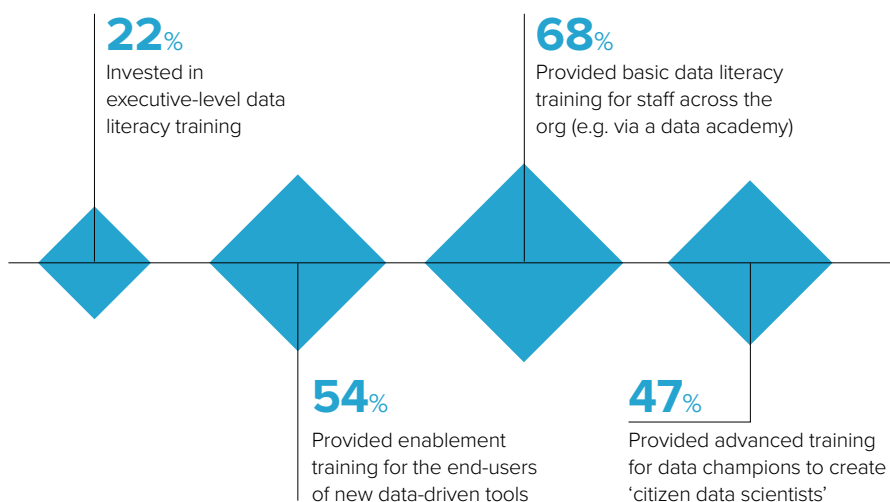
"Recently, we partnered with an external educator to update some of our most senior executives on the latest in data science, through focused workshops," reports Dr Hofmann. "We strive to demystify data science and make it more accessible."

Ultimately, it's companies that can assemble a data-savvy workforce that will get the most out of their technology and AI investments.

Educating senior stakeholders about data science concepts, establishing data academies to level-up the 'data IQ' of the wider enterprise and providing advanced training for analytics power users is proving essential for helping data-focused executives advance their AI strategies in 2022. ∎

Data-Focused Executives are Prioritizing Data Literacy

Which of the following steps has your enterprise taken to ensure staff have the skills to work effectively with data-driven tools?

22%
Invested in executive-level data literacy training

68%
Provided basic data literacy training for staff across the org (e.g. via a data academy)

54%
Provided enablement training for the end-users of new data-driven tools

47%
Provided advanced training for data champions to create 'citizen data scientists'

Source: Corinium Intelligence, 2021

How Enterprises are Establishing Data-Driven Business Cultures

KEY FINDING

Enterprises generally have clear strategies for establishing data-driven business cultures. But most could be doing more to increase the pace of data-driven innovation

Enterprises are Becoming Increasingly Data-Driven

Where would you say your organization currently is on the path to becoming a data-driven enterprise?

23%
MATURE
Data is part of the company's DNA and we are constantly innovating to drive efficiencies and revenue gains

50%
ADVANCED
We provide staff across the organization with relevant insights to inform their decision-making

27%
INTERMEDIATE
We have a trusted foundation for business analytics and regularly provide executives with data-driven insights
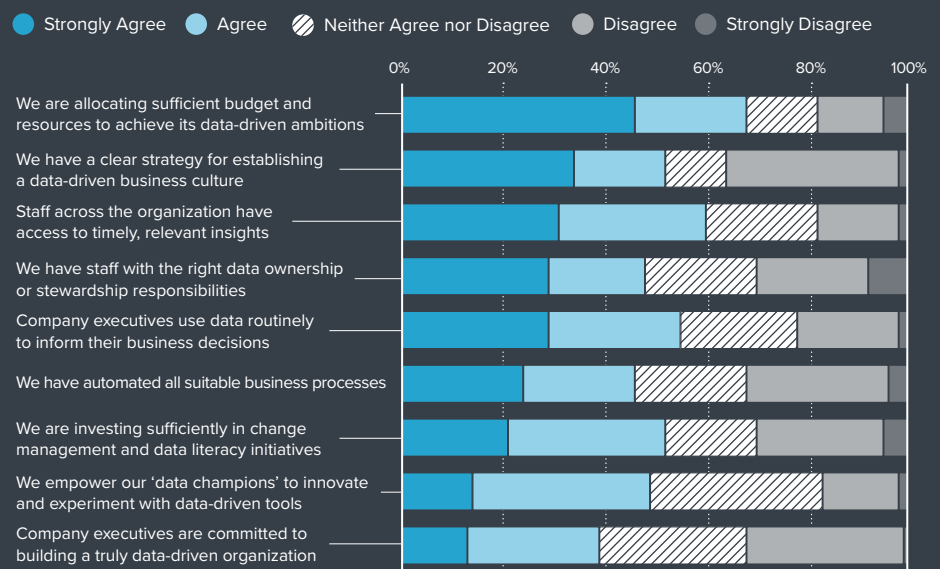
0%
BEGINNER
Company execs recognize the importance of data. But staff do not typically have access to reliable, timely data sources
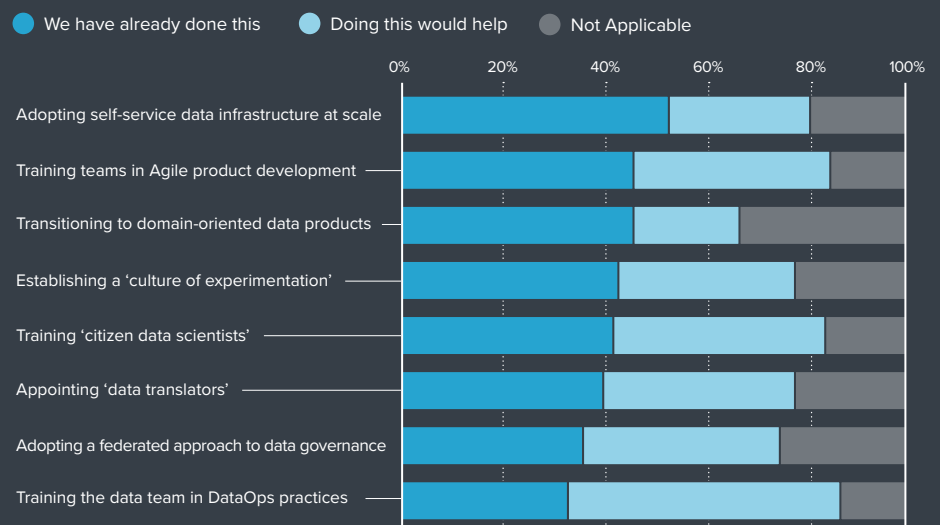
Most Have Strategies for Establishing Data-Driven Cultures

Please rate each of the following statements about data-driven business culture as they apply to your organization

● Strongly Agree   ● Agree   ⟋ Neither Agree nor Disagree   ● Disagree   ● Strongly Disagree

Statements:
- We are allocating sufficient budget and resources to achieve its data-driven ambitions
- We have a clear strategy for establishing a data-driven business culture
- Staff across the organization have access to timely, relevant insights
- We have staff with the right data ownership or stewardship responsibilities
- Company executives use data routinely to inform their business decisions
- We have automated all suitable business processes
- We are investing sufficiently in change management and data literacy initiatives
- We empower our 'data champions' to innovate and experiment with data-driven tools
- Company executives are committed to building a truly data-driven organization

But There's Still Much Room for Improvement

Which of the following do you think would increase the pace of data-driven innovation in your organization?

● We have already done this   ● Doing this would help   ● Not Applicable

- Adopting self-service data infrastructure at scale
- Training teams in Agile product development
- Transitioning to domain-oriented data products
- Establishing a 'culture of experimentation'
- Training 'citizen data scientists'
- Appointing 'data translators'
- Adopting a federated approach to data governance
- Training the data team in DataOps practices

Source: Corinium Intelligence, 2021

Conclusion

After years of hype, it looks like the promise of AI for business is starting to become a reality for enterprises in the US and Canada.

A growing number of companies are approaching the top of the AI ladder and are generating millions of dollars in cost savings and revenue gains with their AI projects. These companies have integrated AI systems with key business processes to achieve cost savings or revenue gains.

However, our research shows that most enterprises still have a way to go before they will be able to unlock the full potential of AI at scale. Many companies can't scale AI-powered decisions, due to unused or non-optimized data.

Enterprises generally still have ineffective processes for data quality management, data governance, breaking down data silos, integrating data for use in analytics at scale and providing end-users with access to valuable data-driven insights.

Data-focused executives in these organizations often find that a lack of executive support or budget and trouble recruiting end-users with the right skills are hampering their efforts to address these challenges.

In light of this, many are prioritizing projects geared toward improving organizational data literacy, managing change and upskilling end-users at all levels to help them work with data and AI-driven tools effectively.

At the same time, these executives are looking at technical solutions that can help enterprises deliver AI projects without having to rely too heavily on scarce data science talent.

Through building a cloud-based and hybrid infrastructure that integrates best-in-class analytics and AI capabilities with technologies such as low-code/no-code environments, executives can lower the barrier to entry for AI and are often able to deliver projects with the talent they already have in-house.

The progress enterprises across North America have made with their AI strategies in recent years is phenomenal. But fully transforming large enterprises to make data and AI part of their DNA takes time. For most, there is still much to be done. ■

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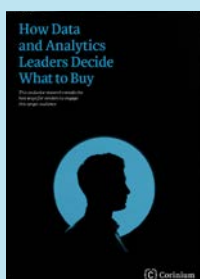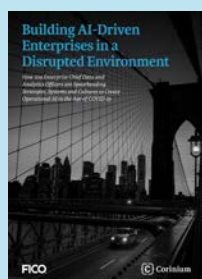
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About the Editor

Solomon Radley is an experienced editor and reporter with a deep understanding of the data, analytics and CX space and close relationships with many of the sectors' most prominent C-level executives.

He works with data and analytics, learning and development and customer experience leaders to champion new innovations and highlight how the world's most forward-thinking brands are using data to fuel their digital transformations.

To share your data story or enquire about appearing in a Corinium report, blog post or digital event, contact him directly at **solomon.radley@coriniumgroup.com**

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