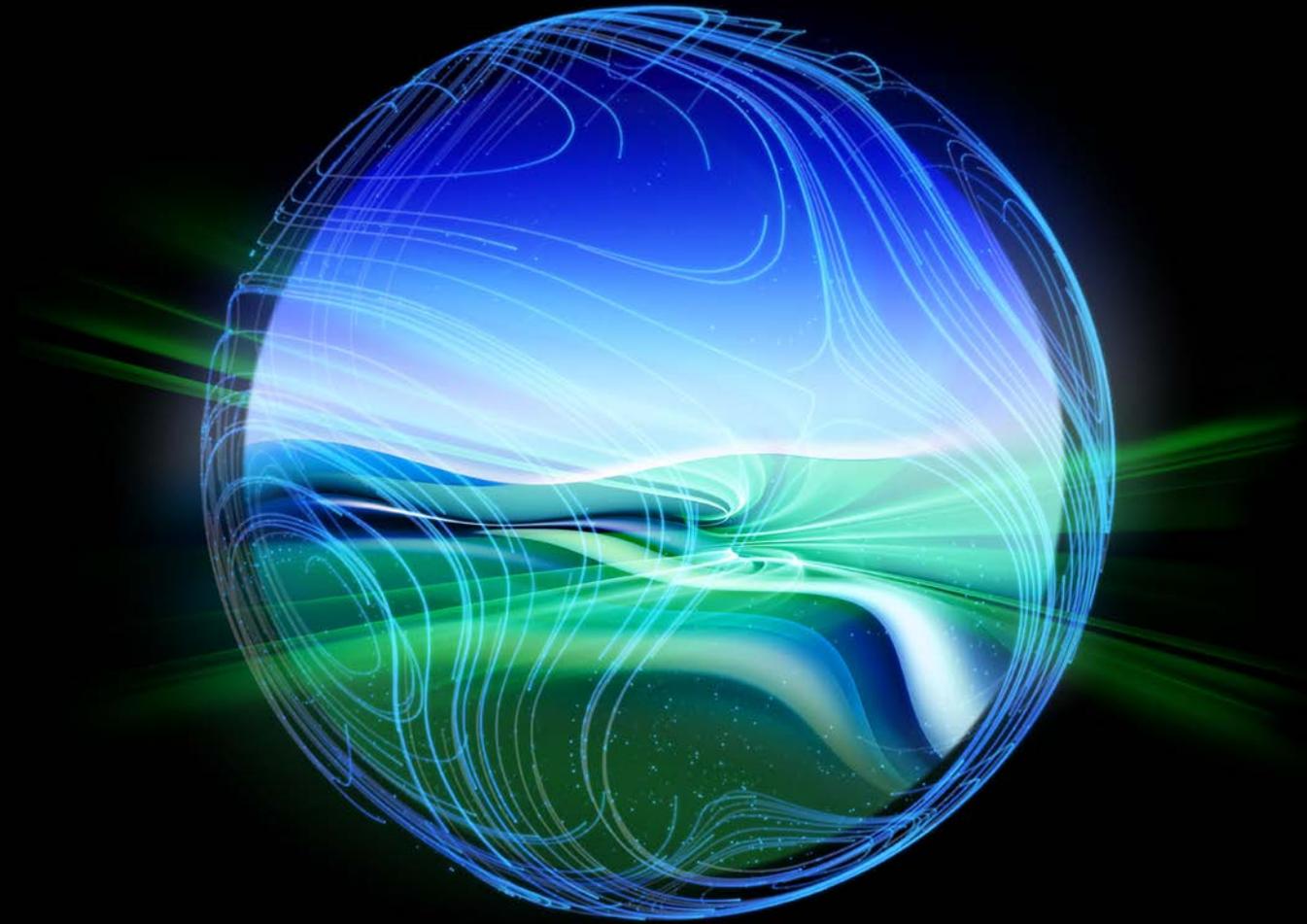


**Deloitte.**



## Today's AI trailblazers

The CDAO's emerging influence and challenges

Chief Data and Analytics Officer survey report

# About the Deloitte Office of the Chief Data and Analytics Officer

We developed the Office of the CDAO as an **integrated solution** to address our own data and AI challenges and capitalize on opportunities. Our demonstrated approach can help organizations unlock data and AI advantages and we're creating a community to further support CDAOs in their efforts.

## Trailblazing the path

Our CDAO program provides tools to help elevate executive skills and assist in building a cohesive leadership team. These include customized, interactive one-day labs, a leadership academy, and opportunities for peers to share experiences.

## Capturing data and AI opportunities

A centralized data marketplace is key to democratizing data usage for employees. We curated data for easy consumption, and we've established clear processes and policies for data access and governance every organization can benefit from.

## Making it all happen with technology

We've created a central ecosystem that includes the architecture and software needed to connect data products, providers, users, and governance—and a support team to help ensure data is used as it's intended.

**Our Office of the CDAO aims to deliver the right data in the right compute environment led by a team that has the right tools and skills to help realize AI's potential. You can learn from the work we've done.**



## Revolutions take evolutions.

**Almost 30 years after Edison invented the light bulb electricity was a rare luxury**—only 8% of US households had electricity.<sup>1</sup> It would take 80 years to become commonplace.

After Edison came a host of trailblazers, like Frank Sprague who invented the first elevators, electric motors, and city-wide electric streetcar system. **Electricity has fundamentally changed the way we work. Our own human ingenuity was instrumental to the effort.**

**AI is no different.**

# The rising influence of an AI and data trailblazer

Promising results from early AI pilots are raising expectations and helping to drive increased investment in the technology. **The c-suite leader that's emerging to help maximize measurable value**—and is well positioned to lead organizational shifts necessary to harness data and AI possibilities—is the **Chief Data and Analytics Officer (CDAO)**. The position didn't exist just 25 years ago.

**Today, many companies have them and a full 78% of CDAOs surveyed say AI has led them to have more power as decision makers and 63% of them describe themselves as the primary drivers of data and analytics decisions.** They are the nation's trailblazers, and bucking the revolving door theory, 94% of them expect to be in their current roles 5–10 years from now. Who are they? How are they making strides? What challenges are they poised to overcome as they lead their organizations for the next big technological shift?

Deloitte set out to find answers via a new survey that highlights the challenges CDAOs face and how their influence within their organization has changed. The survey also explored CDAOs' perspectives on what their organizations need to do to fully leverage the value of data and analytics in AI initiatives.

What we found provides an important benchmark for future evaluation of the CDAO role and its impact on long-term value generated by AI adoption across most industries and business functions. This landscape mirrors in many ways the evolution of electricity adoption and the many trailblazers before and after Thomas Edison who propelled its use into a burgeoning industrial age. AI adoption today is following a similar arc in which its first uses are point solutions, followed by application solutions, and finally redefining entire systems.



**94%** of CDAOs expect their influence to grow over the next 12 months

- 36% Grow significantly
- 58% Grow somewhat
- 5% Stay the same
- 1% Decrease

# How a transformational trailblazer might think

Looking back into history is a great way to help forge future paths.

While multiple scenarios on how AI may play out are aplenty, one thing is near certain—it's effects are likely to be widespread, touching nearly every household just like electricity. **Here's how the use of electricity evolved and how AI might transform something like staffing.**



## POINT SOLUTION Swap something.

### ELECTRICITY TRAILBLAZER INGENUITY



Provide an alternative source, electricity, at the same point steam was used for power in a centralized location.

**Electricity for steam.**

### AI TRAILBLAZER POTENTIAL



An alternative to tedious manual resume searches, an AI Agent matches roles, skills, and availability in one pass.

**Manual to automation.**



## APPLICATION SOLUTION Create something new.

### ELECTRICITY TRAILBLAZER INGENUITY



Equip each machine with its own electric motor so they could move and be turned on and off to save power.

**A washing machine or toaster.**

### AI TRAILBLAZER POTENTIAL



The human resources management process changes by creating, fulfilling, and closing demand more quickly and efficiently.

**Resource management.**



## SYSTEM SOLUTION Shift work.

### ELECTRICITY TRAILBLAZER INGENUITY



New electrical devices enabled the breakthrough creation of the assembly line—allowing production to flow sequentially saving significant costs.

**Enable mass productivity.**

### AI TRAILBLAZER POTENTIAL



Transformation occurs—internal and external staff recruiting, sales forecasting, supply and demand predicting—for greater business value.

**Boost productivity.**

## Key survey takeaways

More influence, people, and projects:  
CDAOs are actively evolving change

AI and data's evolution will likely be led not by the technology, but the **leaders who use their own human ingenuity to transform productivity across organizations**, just like Henry Ford did in his creation of the first assembly lines, made possible by the portability of electricity. Five key takeaways emerged from the survey results that are both exciting and illuminating at this early stage of AI's evolution.





# 1 CDAOs are ascending as organizational trailblazers with a vision

They are setting strategies, managing more people, and AI projects

CDAOs' role is evolving quickly and dramatically as their influence among stakeholders grows. Thanks to today's compounding data management needs, AI adoptions, and investments, **CDAOs are finding themselves in the driver's seat.**

Transforming the company

**A large majority of survey respondents (89%) describe their role as one in which the CDAO can actively evolve or transform data and AI strategy with full executive support.** A mere 11% feel they are not the final authority on leading major initiatives.



**89%**

**Actively evolve or transform data and AI strategy** with full executive support

**11% Contribute to change but are not the final authority to lead major initiatives**





## Pushing the envelope

CDAO's growing influence has occasionally led them to disagree with others in the c-suite.

**While the majority (60%) say they are mostly aligned with the goals and vision of their company's leadership, only 18% are completely aligned.** This finding suggests there's room for disagreement about the company's direction. Every trailblazer is apt to buck the system a bit or they wouldn't be trailblazers, but this group appears to know how to maneuver within their organization.

While point solutions and application uses are emerging, system changes are still being imagined and are more difficult to achieve, requiring more widespread change.



mostly aligned with company leadership goals

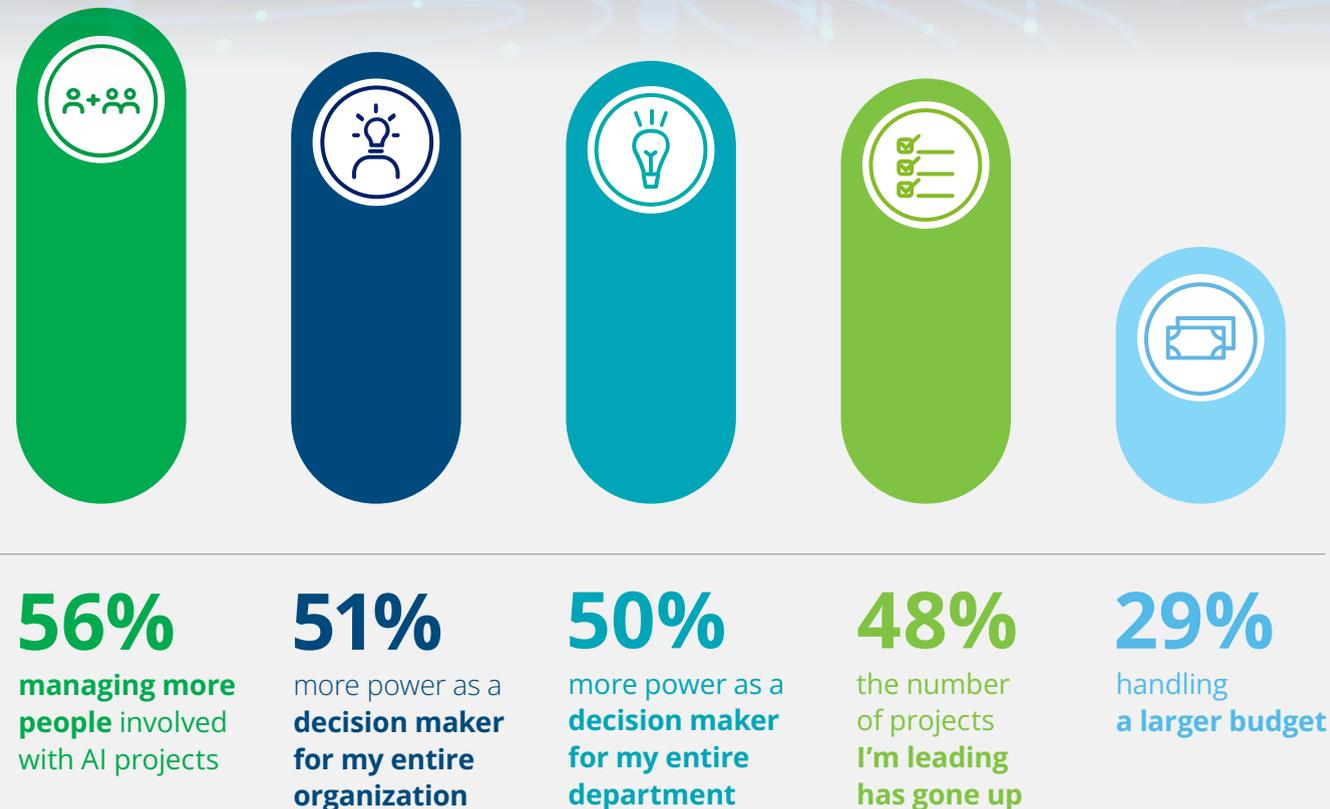


completely aligned



**"I'm making the critical decisions.** I make decisions on which product to purchase or use or to collaborate ... I provide my insights and presentations using case studies and examples to demonstrate the value of AI, and then it's easy for the c-suite management team to understand what's going on and why we need to use AI."

—Survey respondent



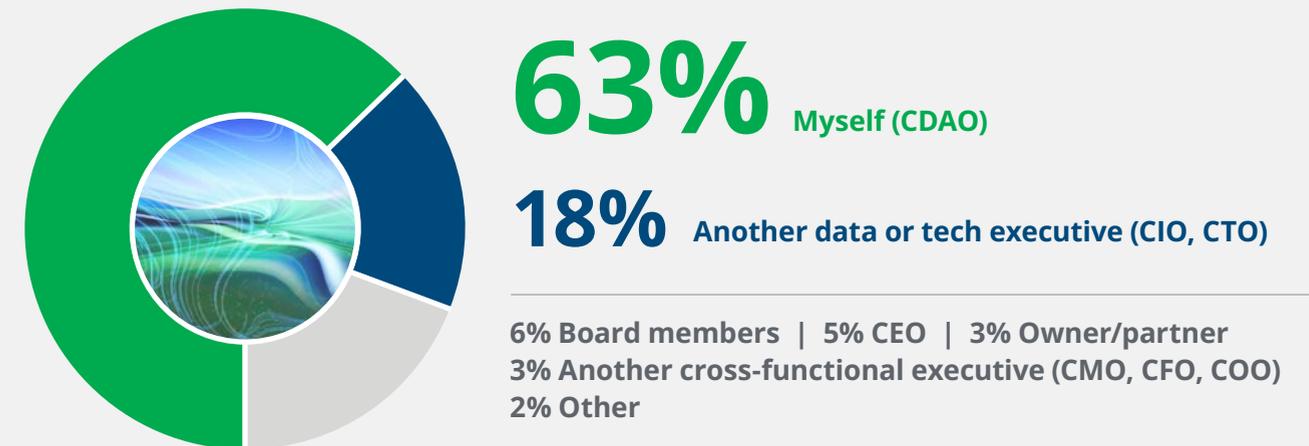
AI has increased CDAO leadership responsibilities  
**Top choices for how**

### Gaining momentum

It is a significant undertaking. The reach of today's CDAO has grown far beyond technical expertise with AI driving enhanced leadership opportunities. **56% of survey respondents are managing more people; 48% say they are leading more projects; and 29% are managing bigger budgets.**

**A majority (63%) say they are the primary driver of data and analytics decisions and estimate only 18% of CIOs or CTOs are making these types of decisions.**

Three out of five CDAOs are the primary driver of data and analytics initiative decisions.





## 2 It's Business 101 with a focus on value

They are sold on AI, and have more experience running it

While companies are paying a lot of attention to AI right now, CDAOs think there's more that could be explored. **They overwhelmingly agree (91%) their organization should do more to take advantage of new AI models, tools, and innovations.** It's clear to them that large scale transformations are ahead, but we are still in the early days of the evolution. Wide scale changes are hard and take time: if electricity adoption took 80-plus years, we're still in AI's infancy.

Under pressure to prove ROI

With AI adoption maturing, companies are pressuring CDAOs to prove these initiatives are worth the investment. **More than half of survey respondents (56%) feel intense pressure to prove the business value and direct ROI of data and AI initiatives.**

91%

**Want their organization to do more** to take advantage of new AI





## What's needed to drive value

CDAOs believe there are several actions companies should take to gain the most value from AI. These include **integrating generative AI and agentic AI into core operations (48%), enhancing data quality and access (38%), and using AI agents for automation and decisions (34%).**

Metrics for **measuring the value** of AI initiatives are crucial. Most CDAOs (64%) work at companies that have key performance indicators (KPIs) for benchmarking AI success. More than half (53%) measure the business value of AI with direct monetary returns on investment (ROI).

New business or revenue streams (41%) and third-party metrics or measurement tools (34%) are other ways companies determine AI value. Only 2% of respondents say their company does not have ways to measure AI value.

**Trying new things** and seeing what works is integral to finding success with AI. Luckily most CDAOs say their company supports risk taking and experimentation and provides a moderate amount of rope with which to take risks and experiment with AI. More than half (58%) believe their company's leadership is fully encouraging of AI experimentation. But a sizeable number (40%) believe their company could be doing more to encourage it.



"We have very constricted budgets. So, **if we're going to work on something, you better get some value out of it.** That's the process we're taking right now in both pre- and post-ROI. We should be able to measure the value."

—Survey respondent



"The pressure that I feel right now is to **demonstrate that AI is driving sales.** If you're a chief data scientist, your job is to build quality models. If you're a chief data officer, your job is to monetize data... 'What are you doing to contribute to the bottom line?'" —Survey respondent

## The AI adoption pay-off

The top three reasons why CDAOs believe their influence will grow over the next year include AI adoption making their roles more critical (65%), the role of CDAOs in their industry as a whole growing in influence (63%), and the data and AI projects they're leading are proving successful (60%), **showcasing the risk/reward gamble on AI is paying off.** However, even though use case projects and point solutions are a way of measuring success, it's important to think beyond use cases to applications and system redesign.

## Cracking the code

For CDAO's, it's getting easier to understand what it takes to set up the back-of-house systems to make AI initiatives work and build upon them. **57% view the struggle to build upon data and AI initiatives as small or nonexistent, while another 38% say there is somewhat of a struggle.** Data holds the keys to widespread transformation. However, major transformations aren't always easy to get done in organizations. It's still a struggle.



**57%**  
Small or  
nonexistent  
struggle to build



**38%**  
Somewhat  
of a struggle  
to build

### Organization's degree of struggle with building upon successful data and AI initiatives

- 5% Not a struggle
- 52% A small struggle
- 38% Somewhat a struggle
- 5% Our biggest struggle

**“As the [AI] maturity curve of the company has grown in its use of data, so has my career.”**  
—Survey respondent

# 3 The value of data can't be overlooked: it's the engine

## Data designed as an asset, anything different is a shaky proposition

Data leaders recognize the opportunities their companies miss when the full value of the data they have isn't being leveraged. A majority of survey respondents' thoughts about what needs to improve most at their organization for AI and agentic AI to succeed include: **improving data quality and access (61%), enhancing overall data and AI skills across staff (53%), and encouraging partnerships between data teams and other departments (52%).**

## Data modernization momentum

For AI projects to succeed in the future, an organization's systems, infrastructure, and processes should be well-equipped to handle AI's data needs. More than three-fourths of CDAOs **(78%) describe their organizations as actively implementing data modernization with AI**, while the remaining 22% have plans but have not yet begun implementation.



"If you don't use AI, data will be a negative asset, not a positive asset. We need to make use of AI to leverage insights and generate value from the data then to guide the business scenarios. We cannot claim, 'my company has tons of data.' That is not the final goal. **The final goal is to leverage insights from the data.**"

—Chief Data Scientist, Financial Services Industry

More than three fourths are **actively implementing data modernization with AI.**





## Chief concerns

**Nearly all CDAOs (95%) think their organization isn't fully leveraging the value of data and of these, 53% are extremely or very concerned.** In a climate where value is the holy grail, it's no wonder this keeps them up at night. So how are they going to overcome this challenge?

Among those with concerns, CDAOs top recommendations to generate more value from data were: integrating AI and machine learning into key business processes (53%), improving metrics for AI and data-intensive initiatives (46%), and developing a clear data strategy aligned with business objectives (41%).

## Near-term outlook

Within the next year, CDAOs believe the **top three ranked drivers for decisions about data and AI initiatives should be: data and AI investment benchmarks (46%), return on data and AI investments (43%), and customer experience enhancement (41%).** However, successful decisions about data and AI initiatives should include an evaluation of how the operating model will change.

The bottom line is: CDAOs are focused on ROI, which is far easier to achieve when they are in a use-case mindset. But CDAOs are starting to ponder scaling AI. Successful decisions about data and AI initiatives should include and evaluation of how the operating model will fundamentally change in the future. Those CDAOs who have a long-term perspective around systems are likely to prove most successful.



**95%**  
think their organization isn't fully leveraging the value of data

**53%**  
of these are extremely or very concerned

**42% Somewhat**  
**5% Not too or not at all**



# 4 Every trailblazer hits a few bumps in the road. Here's where there's work to be done.

CDAOs are aiming at **five key challenges** as their AI adoptions begin to evolve.

Much like innovations around electricity transformed the agricultural and manufacturing industries between the late 1800s and mid-1900s, CDAOs are nearly unanimous in their enthusiasm that AI can lead to giant leaps in productivity. But CDAOs also acknowledge **there's much work to be done to fully realize AI's potential in their own organization.**

## I. Scaling AI

Two-thirds (**67%**) of survey respondents think **scaling AI would most benefit** their organizations.

## II. Upskilling workers

Many CDAOs (**44%**) believe **investments in upskilling and training employees** would benefit their organization.

## III. Strengthening leadership skills

CDAOs are **feeling pressure to further develop their leadership skills.** 33% view it as a top three challenge.

Two thirds of CDAOs think **scaling AI would most benefit their organizations.**





"We need to **take some actions to make sure our data is secure** ... to make sure privacy can be preserved, and the data can be accessed with authority, without breaches." —*Survey respondent*



#### IV. Building performance teams

To successfully drive data and AI initiatives, CDAOs need a skilled workforce that's fully committed. However, one-third (**33%**) of survey respondents cite building and retaining high-performance teams as a top challenge.

Furthermore, a majority (**62%**) believe their organization impedes their leadership efforts by not providing sufficient resources and tools to hire and retain top data and analytics talent. If budget were not a constraint, CDAOs would hire or train for these top three ranked skills: AI and data analytics (48%), product management and data initiatives (44%), data science (41%).



#### V. Creating governancy policy

Given the rapid adoption of AI and the importance of AI initiatives, CDAOs are naturally concerned about potential data privacy and security risks accompanying the new technology. The challenge of ensuring data privacy and security in AI initiatives is apparent with **only 19% of CDAOs saying their organization has robust policies and guardrail tools.**

Nearly half (48%) say their organization has taken steps toward governance but there's more work to be done and areas need improvement. Fewer than one-third (27%) say their organization has limited safeguards and 6% say their organization currently lacks any specific governance guardrails.

**19%**



of CDAOs say **their organization has robust policies and guardrail tools** to ensure data privacy



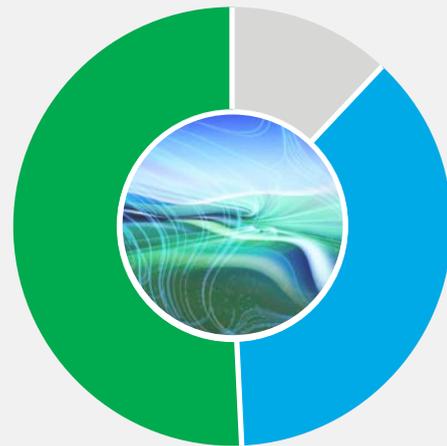
## The future is bright for CDAOs

Many have been a part of the organization for a long time and anticipate staying in the role.

Despite the CDAO position having a reputation for being a revolving door, with average tenure of three years, more than a third of survey respondents (34%) **expect to work as CDAO for up to 10 years or more.**

Just over a fourth (28%) project a five-year tenure. And more than half (56%) say they expect to someday retire in their CDAO role. Only 9% have plans to leave their position or switch careers soon.

The importance of longevity is reflected in the finding that more than half of respondents (51%) **have been with their organization 10 years or more.** Clearly, these people have gained significant experience prior to taking on their CDAO role—experience that outside hires and short-term employees can't match.



**51%**

**of CDAOs surveyed have been with their organization for 10+ years**

**37% 6–10 years**

**12% 5 years or less**

More than half **expect to retire in their position.**



As the prominence and demands of the CDAO role grow along with the AI boom, **94% expect their degree of influence to grow in the next 12 months.** Among these, 65% say AI adoption has made their role more critical and that the role of the CDAO in their industry is growing in influence (63%).

Even as AI is fueling frequent and near-continual changes, **most CDAOs believe their job closely matches their expectations.** For 62%, their responsibilities have completely or mostly aligned with expectations, while another 23% believe their responsibilities have somewhat aligned. Only 15% feel the role they expected turned out to be different from reality.



**“I don’t think the CDAO role is going away,** I think it’s actually going to kind of explode. Because AI technologies come and go, but the data lives forever, you’ve got to have someone who’s responsible for monetizing data and know what that requires. It’s going to remain nontrivial for the foreseeable future.” —*Survey respondent*

Even at a time when their AI has led to frequent and near-continual changes,

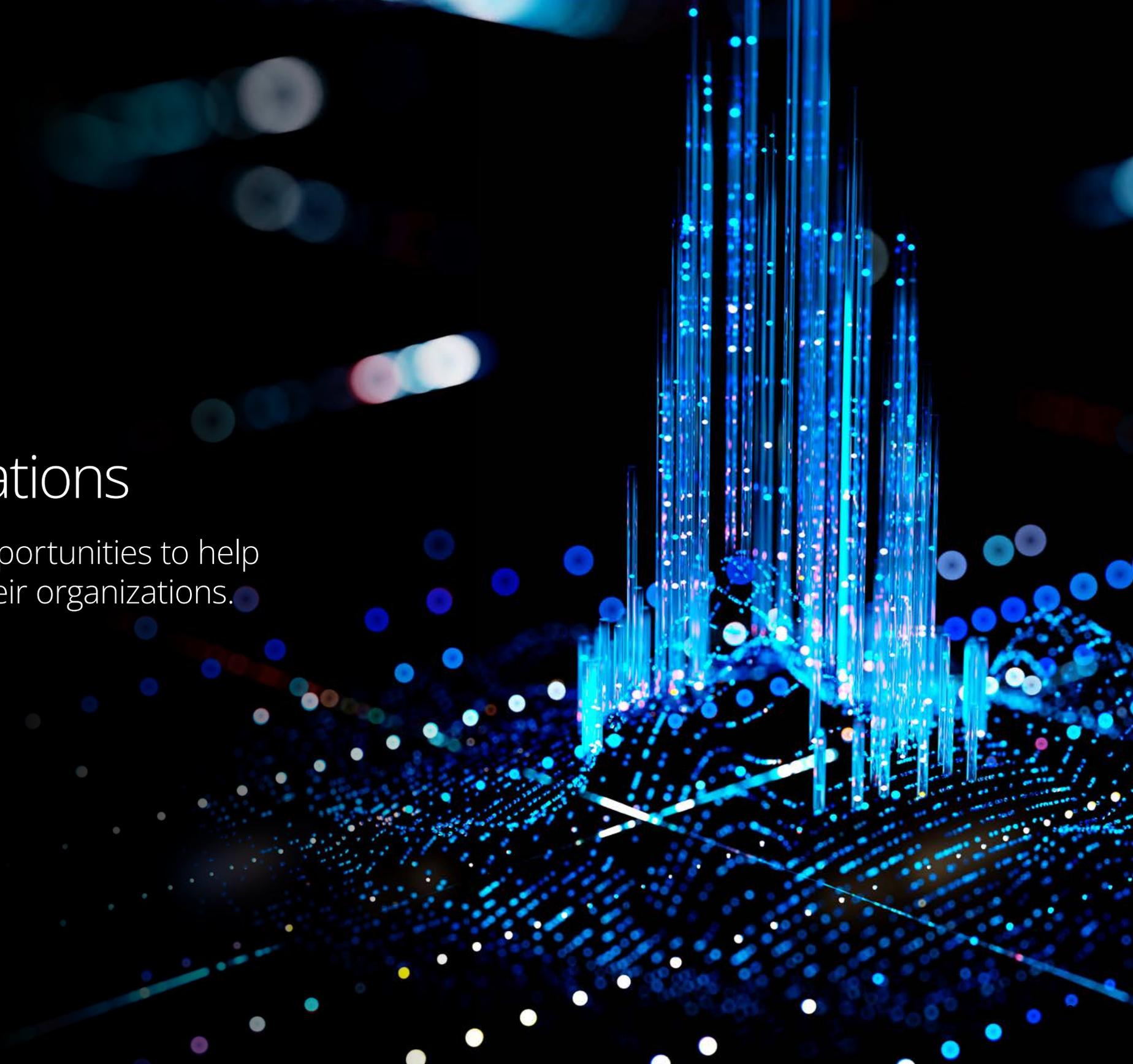
**62%**

**feel the realities of their job responsibilities are mostly or completely aligned with the expectations they had going into the role.**



# Opportunities and considerations

While CDAOs are riding the AI wave, there are opportunities to help ensure continued success for themselves and their organizations.





## A.

Create a CDAO position if one doesn't exist or add AI to their title

**Organizations need a CDAO who can cross between IT and business units naturally**, exerting organizational influence and enjoying c-suite support. While good candidates have navigated the organization a long time and tend to be lifers, their leadership skills should be honed to help enhance their influence so they can deliver on the ask. Companies should provide opportunities for strengthening leadership skills through networking and shared learning among industry peers. In addition, new CDAOs should have structured learning opportunities to fully understand their role and influence, and to help them build their teams.



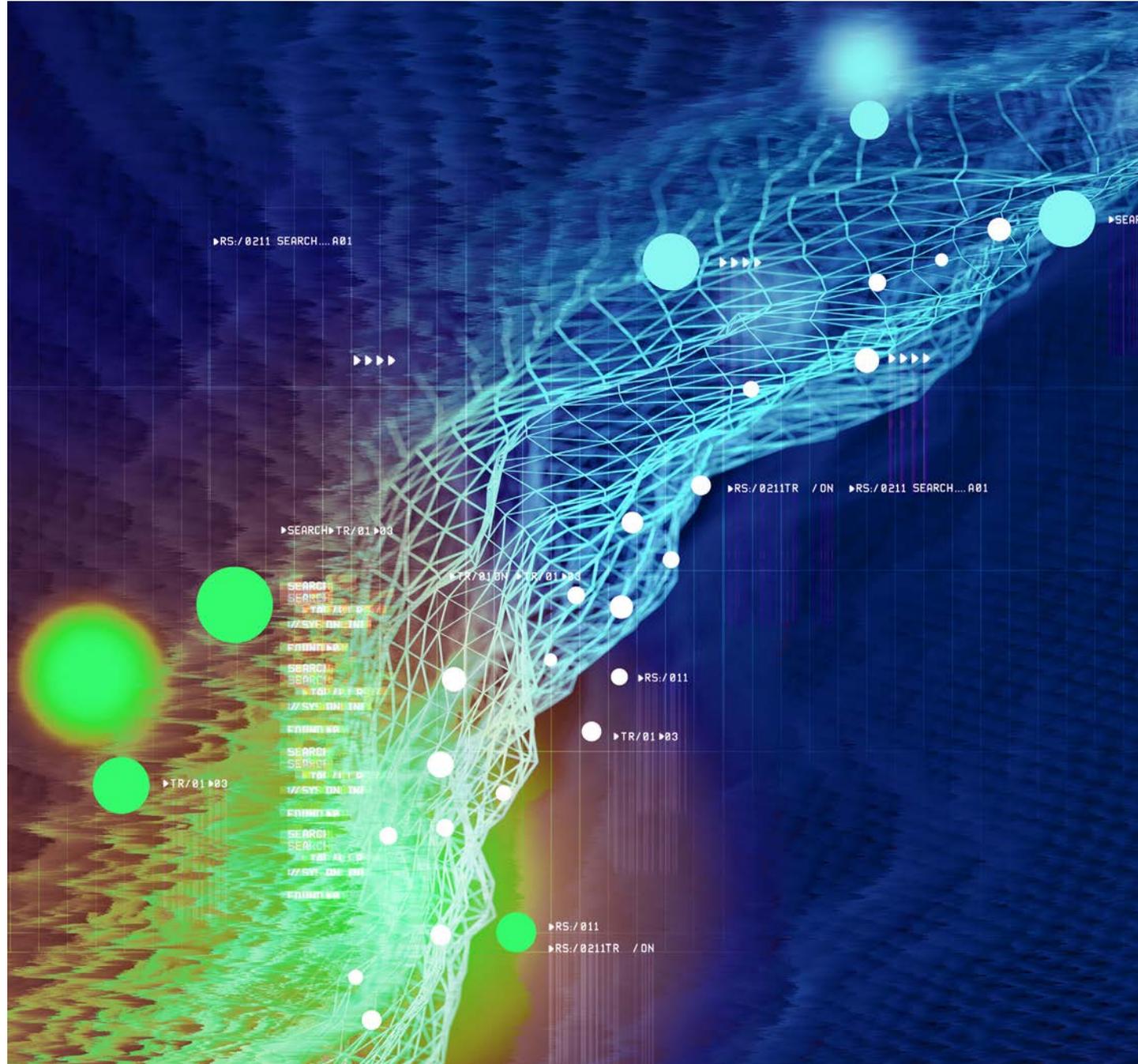
## B.

Maintain priority alignment and manage expectations

Building relationships is essential for a successful CDAO, including **relationships with other c-suite executives and technical and business executives**. Involving these stakeholders in decision making can lead to better outcomes.

A common misconception at some organizations is that AI requires only a flip of the switch to be successful. CDAOs should manage organizational expectations for realistic timeframes around AI success. And **they should provide steady leadership and commitment to achieving long-term transformation across the enterprise**.





## C.

### Track data and AI value and focus on benchmarks and ROI

The CDAO survey revealed the importance of demonstrating value from data and AI initiatives. **Starting small is a key to success.** An organizational AI strategy should focus first on implementing smaller, high-impact use cases in proven areas to accelerate productivity and ROI. But it's also important to think beyond use cases to application solutions and system redesign. AI success cannot be achieved without impacting the overall operating model, which will look very different in the future.

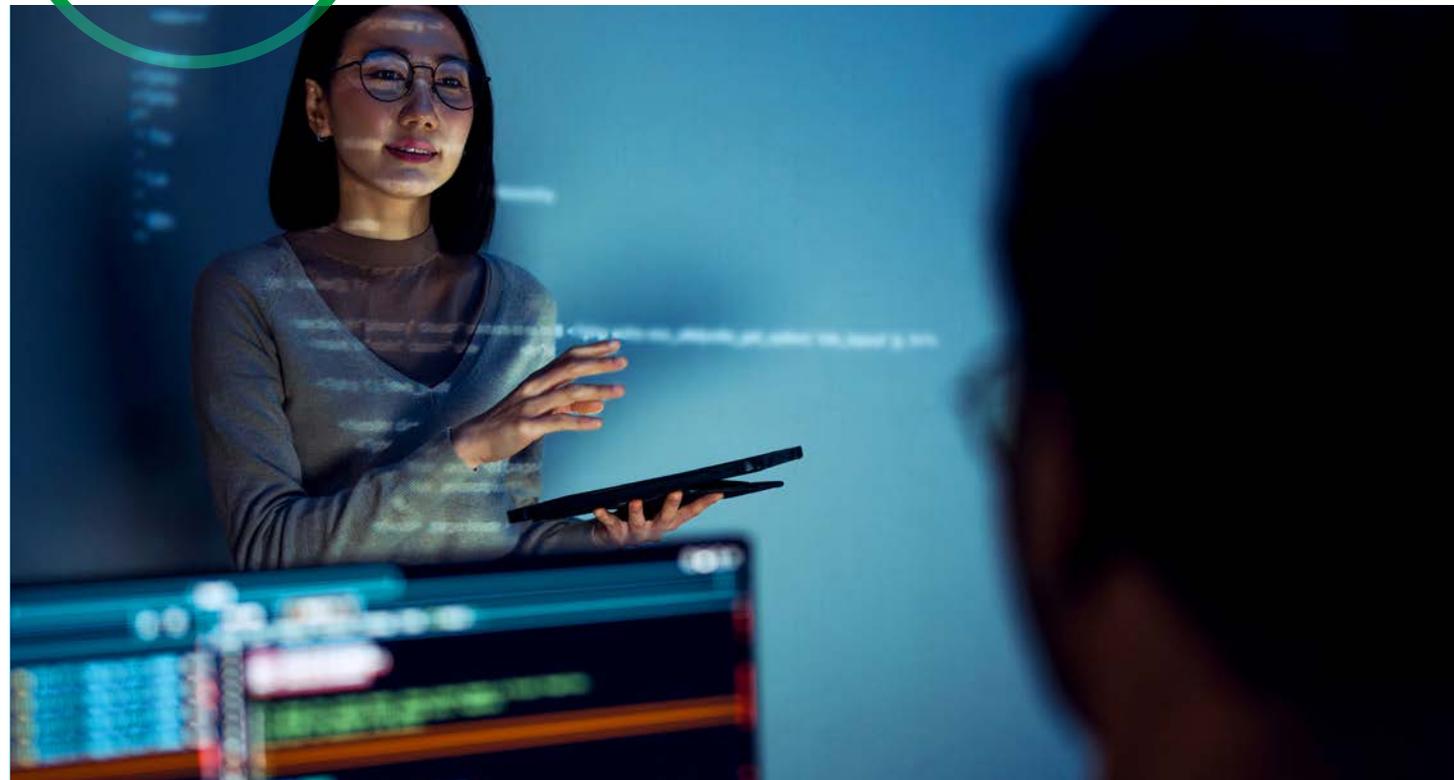
A strategic roadmap should be developed along with new measurements to prepare for application and system solutions that are transformative at the next stage. The roadmap can help pinpoint the tasks and workflows best suited for data modernization and the AI agents that allow for widespread organizational change. The long-term success of this roadmap will likely rely on continuous improvement based on user feedback and performance.

## D. Prepare the workforce

One of the first steps in preparing a company's workforce for the AI onslaught is **building a killer CDAO team** that can assist in education and bridge building. Along with its leader, this team can solicit and secure buy-in among workers for AI adoption.

The CDAO should also work with HR to redesign the future of work and assist in **upskilling initiatives and hiring talent** to fill identified skills gaps.

Demystifying the future of AI can help employees see that they will have a role in their organization's transformation.



## E. Don't forget the foundation

It's up to the CDAO to help identify **specific goals, desired value, and measurement metrics to demonstrate value** from data and AI use cases. Low-risk use cases with human oversight are a good first step. As with any new endeavor, testing is key and it's especially important when it comes to data management, cybersecurity, and the governance needed for safe AI and agentic AI applications. Finally, CDAOs should prepare for the inevitable regulation of AI.

# The human ingenuity behind AI

## CDAOs are taking stake

By examining the attitudes and experiences of CDAOs, the Deloitte survey provides a snapshot of how their role is evolving and the factors—such as AI—driving these changes. Survey respondents also provide a glimpse of CDAOs' influence and leadership in their companies, how they interact with other leaders, and the challenges they face.

They understand the path they are trailblazing is both exciting and harrowing. They also believe in upskilling the people in their organizations and inspiring experimentation for human ingenuity is required in all great technological evolutions. AI is likely to be no different.

In addition, the CDAO survey offers valuable insights into how organizations are leveraging the value

of their data and AI initiatives, how that value is being measured, the barriers to gaining even more value, and the approach to privacy and security concerns. The findings can serve as a foundation for future exploration. Like the trailblazers of electricity adoption, today's CDAOs are at the forefront of a revolution that will change the way we work. It's likely their ingenuity in helping organizations realize AI's potential may become legendary.



# Methodology

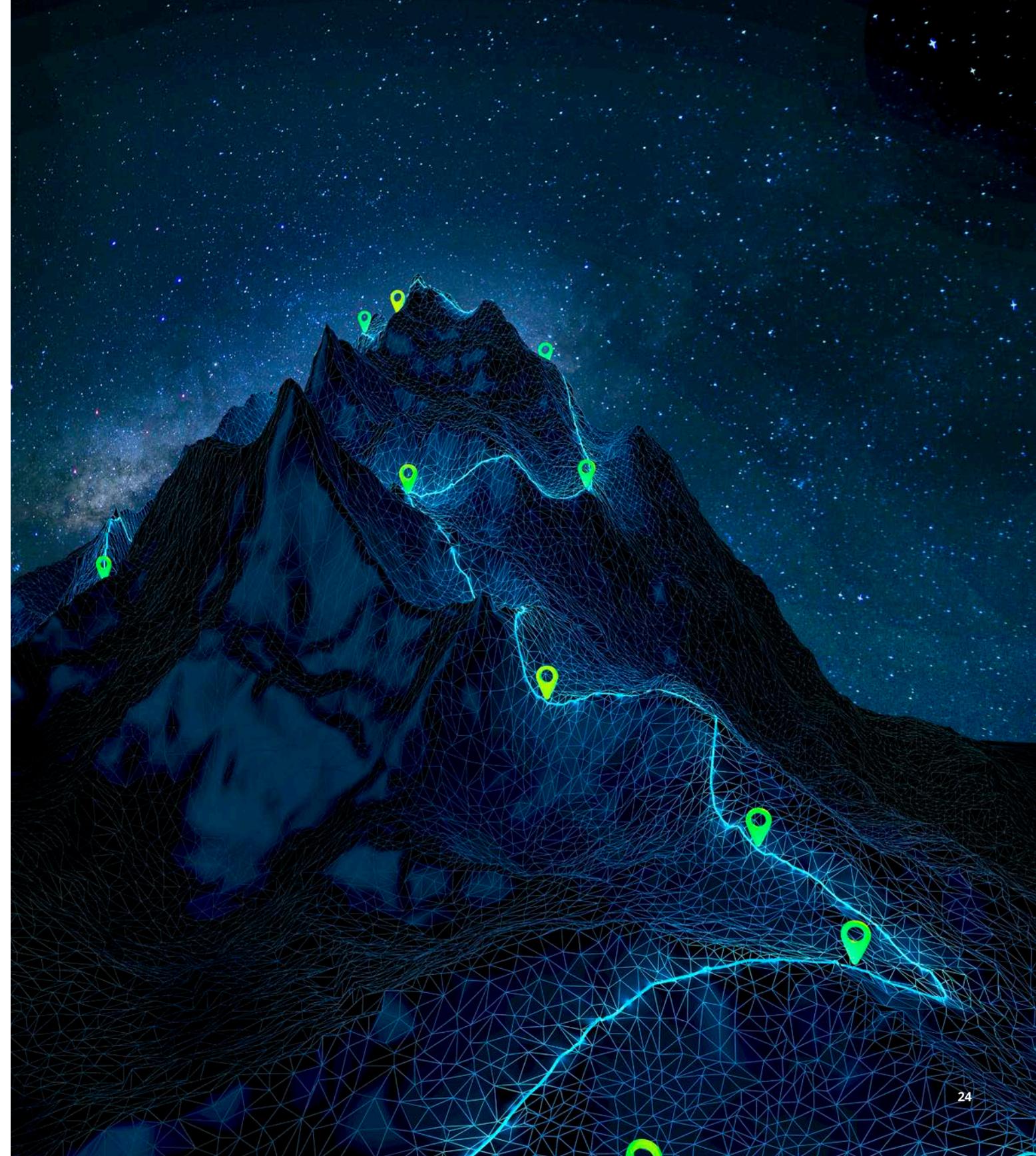
Quantitative research for **Deloitte's CDAO survey** was conducted between **August 26, 2025, and September 12, 2025**. Using an email invitation and an online survey, 100 c-suite executives from companies with \$1B or more in revenue responded.

Their titles included CDAO, CDO, CAIO, among others. Respondents represented more than **20 different industries** with the most from high tech and electronics (15%), manufacturing (12%), banking and finance (12%), and Retail (11%).

Demographics of survey respondents included:

- **61% work at publicly traded companies**
- **52% have done graduate or post-graduate work**
- **27% are female**
- **79% are 41+ years old**

Following the quantitative research, eight in-depth interviews were conducted between October 8, 2025, and October 27, 2025.



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# Endnotes

1. Brian Potter, *The Birth of the Grid*, Construction Physics, May 25, 2023, <https://www.construction-physics.com/p/the-birth-of-the-grid>.



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