# Deloitte.

Chief Data Officer survey
2024

01   Executive summary

Background and objectives

The Chief Data Officer (CDO), is a strategic leader responsible for driving value from data for organisational success.

Possessing a blend of strong business acumen and an understanding of organisational objectives, their key focus is to unlock the full potential of data, propelling the organisation to achieve and exceed ambitions.

The CDO role is gaining prominence across industries, driven by several factors:
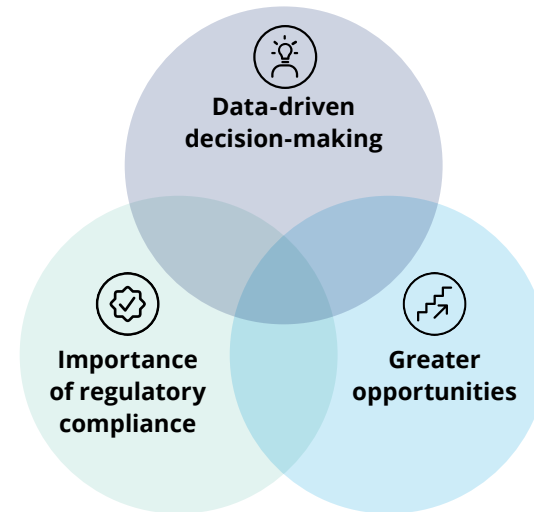
Data-driven decision-making: organisations are increasingly relying on data-driven insights to make informed strategic decisions. The CDO plays a pivotal role in ensuring data is accurate, accessible and delivers insights to empower confident decision-making.

Greater opportunities: CDOs are tasked with aligning data ambitions to their specific business requirements, enabling their organisation to utilise data to improve processes, drive efficiencies and create competitive advantage.

Importance of regulatory compliance: new data regulations such as the UK General Data Protection Regulation (UK GDPR), Data Protection Act 2018 (DPA 2018) and EU Artificial Intelligence Act (EU AI Act) means CDOs are facing additional scrutiny against their use of data and its purpose.

01   Executive summary

Background and objectives

As a relatively new addition to the C-Suite, the role of the CDO is constantly evolving, with organisations tailoring its scope to maximise impact. This report delves into the multifaceted role of the CDO, including their long-term vision, influence across the organisation and control over resources to implement their strategy.

Objectives

We are excited to present our third annual CDO survey.

This report, drawing upon insights from CDOs and senior data leaders across industries and geographies, provides an in-depth exploration of the evolving CDO role. Our objective is to illuminate key priorities, opportunities, and challenges faced by CDOs.

This year, we have also included findings on:

01. the expanding role of the CDO, with a focus on artificial intelligence (AI) and generative AI (GenAI)

02. the key challenges that CDOs face in realising their ambitions

03. the financial constraints faced by CDOs and their impact.

To provide deeper insights, this report segments organisations based on data maturity and data culture. The classifications utilise self-reported rankings (on a scale of 1-5) provided by CDOs taking the survey. We look forward to continuing to explore and investigate these trends in future years.
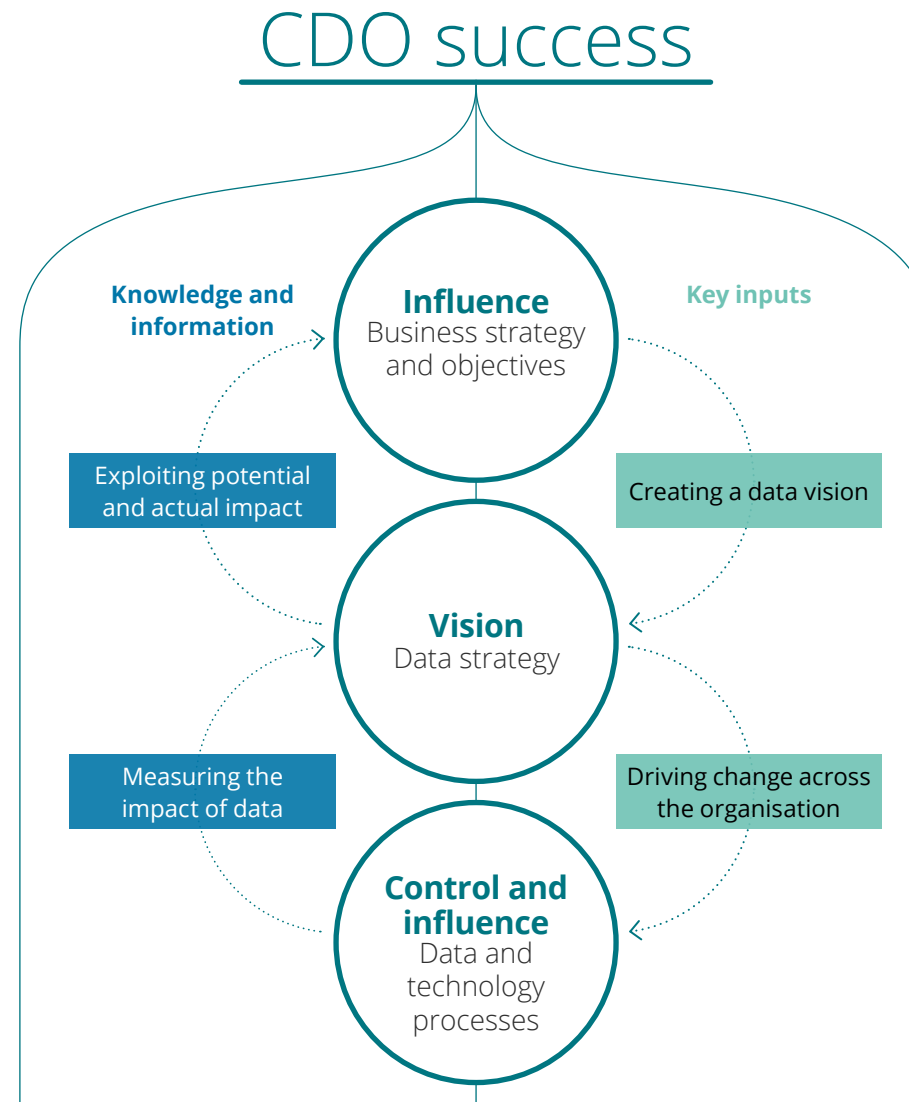
01   Executive summary

CDO success framework

Similar to Deloitte's 2023 Chief Data Officer survey, we have aligned our analysis around the CDO success framework.

We believe that a CDO's impact on business performance is driven by three core factors:

01. having a vision aligned to the business strategy

02. having significant control over how data is gathered, managed and delivered to the wider organisation

03. having a material influence over the aspects of data they don't control – by building strong internal relationships.

This report includes a section dedicated to each of these areas, where we summarise key observations and findings.

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CDO success

Knowledge and information

Key inputs

Influence
Business strategy and objectives

Creating a data vision

Exploiting potential and actual impact

Vision
Data strategy

Measuring the impact of data

Driving change across the organisation

Control and influence
Data and technology processes

01   Executive summary

Partner foreword

"We work with a diverse group of clients globally from across all industries, who are all looking to unlock the full potential of their data. Our mission is to understand their unique challenges and empower them to overcome these obstacles.

This report underpins our core reflections on current market trends, given our experience and the analysis from the 2024 Chief Data Officer survey. We are looking forward to working with our clients to support them in addressing the challenges that they face both today and in the future.

We extend our sincere thanks to all the participants in this year's research, whose valuable insights have enriched this report.

We hope you enjoy the read."

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02   Key observations: vision

Vision
Our perspective

Clear goals are critical for a CDO's success; those who have a clearly articulated vision are better positioned to steer their organisation towards data-driven success, and to foster innovation.

For a CDO, **vision** describes having a clear and progressive plan for leveraging data to achieve organisational goals. The scope of a vision will vary significantly across different organisations, but a successful one will include the primary ambitions of the wider business strategy, as well as data objectives, to support the organisation in achieving its overall goals.

As businesses continue to leverage their data and rely on it more heavily to drive organisational outcomes, it's clear that a strategic approach and visionary leadership are crucial.

A clearly articulated vision is essential for CDOs navigating the dynamic digital environment. It provides a focal point, enabling them to lead with purpose and instil confidence in stakeholders regarding the organisations data strategy.

A compelling CDO vision should encompass ambitious goals, that leverage or at least consider technological advancements, such as AI, whilst directly supporting overarching organisational objectives. This ensures strategic alignment, maximises investment value, and fosters buy-in.

02   Key observations: vision

Vision

A clear vision is a catalyst for driving success, instilling a sense of purpose, and fostering innovation.

Chief Data Officers (CDOs) who align their data strategies with overarching business goals are better positioned to unlock valuable insights and drive tangible business value. Recognising this, CDOs are increasingly shifting their focus from strategy development to implementation, prioritising the maturity and execution of their data strategies.

The evolving role of a CDO is testament to a wider organisational commitment to embracing digital transformation. This is underpinned by robust data capabilities and an increased use of artificial intelligence (AI) and generative artificial intelligence (GenAI) tools, both of which are key for a modern, data-driven organisation. Whilst organisations are widely embracing AI/GenAI as the frontier of innovation and digital transformation, CDOs must be cognisant of addressing critical challenges like safeguarding data privacy, fostering a culture that bridges the skills gap, and complying with regulations around the use of AI.

Key insights

49% of CDOs have identified prioritising AI and GenAI as a key focus area for the next 12 months.
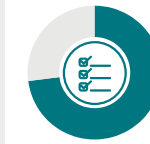
73% of CDOs have a data strategy in place, up from 61% in the previous year, indicating a shift from strategy development to implementation.

The Government and Public Sector participants place the highest priority on improving data quality, with over **71%** of CDOs identifying it as a key focus area.

83% of CDOs indicate that they have improved the use of analytics within their organisation.

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02   Key observations: vision

Vision

There's a notable misalignment in the core priorities of the CDO and challenges they face. We observed discrepancies in areas we'd anticipate greater alignment. Three key examples of this include:

1 All our previous CDO surveys indicate a relatively weak relationship between the CDO and other C-Suite positions, however only 18% have stated strengthening C-Suite relationships as a priority for the year ahead.
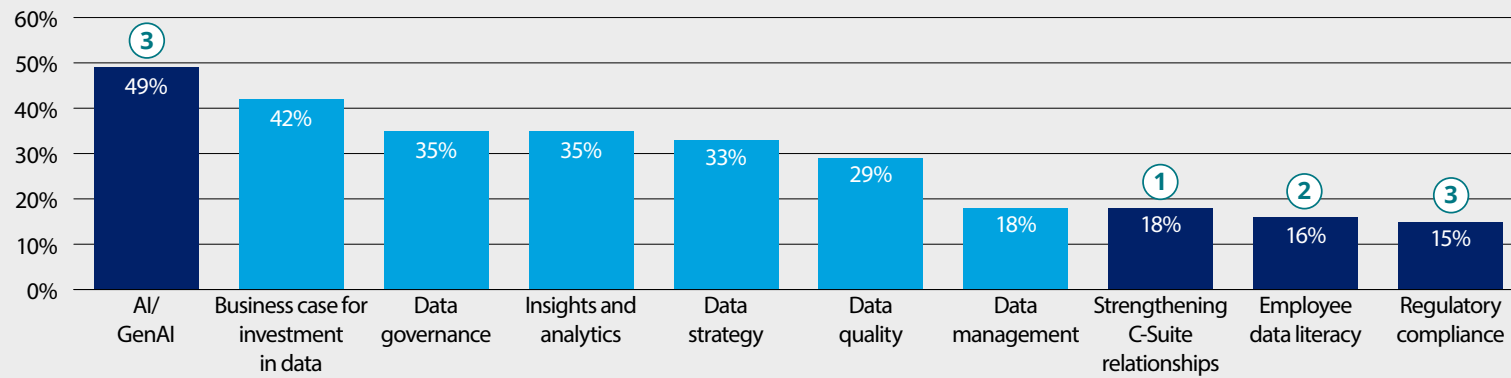
2 Despite 66% identifying data culture as their primary challenge in adopting AI, only 16% of CDOs are prioritising data literacy, which is a foundational element of a strong data culture.

3 The evolving regulatory landscape, including the EU AI Act, the upcoming Digital Product Passport requirements and the EU Data Act are likely to introduce new complexities in using AI. However, whilst AI/GenAI is a core priority for almost half of all CDOs, only 15% stated regulatory compliance as a core priority.

Core priority for the next 12 months

Category	Percentage
AI/GenAI	49%
Business case for investment in data	42%
Data governance	35%
Insights and analytics	35%
Data strategy	33%
Data quality	29%
Data management	18%
Strengthening C-Suite relationships	18%
Employee data literacy	16%
Regulatory compliance	15%

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02 Key observations: control

Control

Our perspective

CDOs with well-resourced teams and adequate budgets, as well as a clear vision for data strategy and the ability to exert control over key areas like data governance and AI ethics, are better positioned to drive data innovation in their organisations.

For a CDO, **control** is described as having the power to ensure that data is used responsibly, effectively, and ethically to benefit wider organisational objectives. To do so, CDOs require sufficient resources, dedicated teams, budget, and authority where required.

To drive meaningful change and innovation, CDOs need more than just a vision – they need a well-equipped team and resources, accompanied with a budget to match.

A strong, skilled team, rich in diverse data expertise, will equip CDOs to tackle complex challenges inherent in any transformative initiative. This, coupled with a dedicated budget, allows CDOs to invest in new technologies, upskill their teams, and pilot innovative ideas, transforming aspirations into tangible solutions. In turn, this will enable them to build robust data and AI capabilities to fully leverage the value of data.

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02   Key observations: control

Control

This year's survey highlights the importance of equipping CDOs with the tools they need to turn aspirations into tangible results.

Whilst data teams may represent a smaller portion of overall headcount, CDOs are increasingly prioritising specialised expertise. This includes a growing emphasis on areas like artificial intelligence and change management.

This allows CDOs to assemble agile, high-performing teams that can tackle complex data challenges.

Data budgets are on an upward trajectory, with investment spread across the entire data lifecycle. This dedicated funding empowers CDOs to implement their strategic vision and foster a data-driven culture.

By empowering CDOs with the right resources, budget, and talent, organisations bridge the gap between strategic vision and tangible business outcomes. This control is fundamental for CDOs to drive data-driven transformation and demonstrate ROI on data initiatives.

Key insights

47% of CDOs report having between five to eight direct reports. On average, data teams are comprised of **192** people, representing an average of **1.1%** of the total workforce.

45% of CDOs have seen an increase in their budgets, but we observe variations across industries.

Organisations with stronger data maturity demonstrate a greater focus on machine learning, in comparison to AI. **25%** are actively hiring machine learning capabilities, compared to 10% for AI.

02 Key observations: control

Control

One of the most powerful tools for CDOs is having equipped teams to manage the increasing demand on data requirements. As such, CDOs indicate they are looking to expand their data teams over the next 12 months.
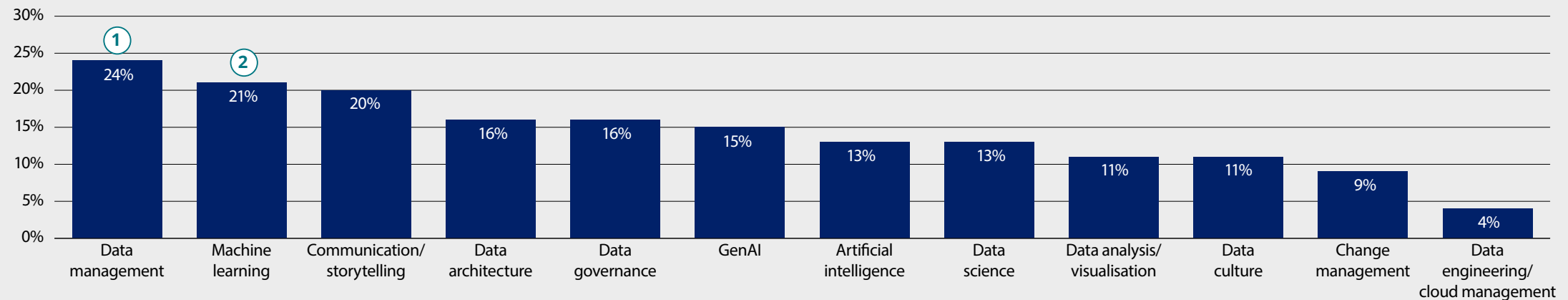
1 Whilst exploring new skill areas, CDOs remain committed to strengthening their core data management capabilities. This is evident in the continued focus on recruiting for data management skills, underscoring the importance of a strong foundational base to support broader data ambitions.

2 CDOs have a significant interest in building machine learning skills, despite it being a lower focus area compared to AI.

What skills are CDOs looking to hire into their data teams?

Skill	Percentage
Data management	24%
Machine learning	21%
Communication/storytelling	20%
Data architecture	16%
Data governance	16%
GenAI	15%
Artificial intelligence	13%
Data science	13%
Data analysis/visualisation	11%
Data culture	11%
Change management	9%
Data engineering/cloud management	4%

02 Key observations: influence

Influence

Our perspective

To successfully champion data-driven initiatives and cultivate a strong data culture, CDOs must effectively influence senior leaders. Securing buy-in from key stakeholders is crucial for CDOs to navigate organisational change more effectively.

For a CDO, **influence** is described as having the ability to inspire and empower others across the organisation to prioritise data.

Whilst the degree of influence required and its needs may differ based on organisational structure, CDOs consistently need strong executive support, particularly from the CEO and COO, to champion data transformation and drive impactful change.

As a relatively new C-Suite role, CDOs will inevitably face the challenge of aligning senior stakeholders with their vision and initiatives. This alignment is critical, as data initiatives typically span the entire organisation and require buy-in from various business areas. For example, AI initiatives have the ability to transform business improvements, but it is challenging to reap the benefits if you are unable to get buy-in from key stakeholders.

Strong influence is essential for fostering a data culture, enabling smoother data transformation, and translating insights into impactful progress. By actively networking and building relationships across the organisation, CDOs can unlock opportunities, foster collaboration, and pave the way for sustained data-driven success.

02 Key observations: influence

Influence

Influence impacts three key areas of a CDOs relationship with the organisation.

01. C-Suite and executive management understanding the data opportunity;
02. driving change within the organisation; and
03. forming a strategic approach to treat data as an asset.

Aligning the CDO role to the highest level of leadership will create a more collaborative environment and a unified approach to achieving success. Whilst there is an increasing trend of greater awareness of the role amongst C-Suite stakeholders, there is still potential for improvement with other executive stakeholders too.

CEOs could especially benefit from further understanding and engaging with the CDO role. A top-down approach is critical in communicating a shared vision, creating a data-driven culture, and delivering impactful business outcomes, especially as AI-powered insights become more important for navigating complex business challenges and driving future growth.

CDOs have responsibilities that span beyond their data function, as they play a key role in driving business process efficiency and enhancing strategic decision-making across the whole organisation. Despite this, the majority of CDOs report into digital or technology focused C-Suite stakeholders as opposed to business focused roles.

Key insights

Over **50%** of CDOs want to report directly to the CEO.

Only **49%** of CDOs believe their CEO has a good understanding of the CDO role. This is higher (57%) for organisations with stronger data maturity, compared to only 39% in less mature organisations.

66% of CDOs have successfully enabled their organisations to leverage data for enhancing business process efficiency and ensuring regulatory and legal compliance.

02   Key observations: influence

Influence

We have seen improvements in how CDOs are interacting with their C-Suite colleagues over the past couple of years but still observe a stronger relationship with data and technology focused roles, compared to business roles.

How do C-Suite engage with their CDO role?

2024   2023
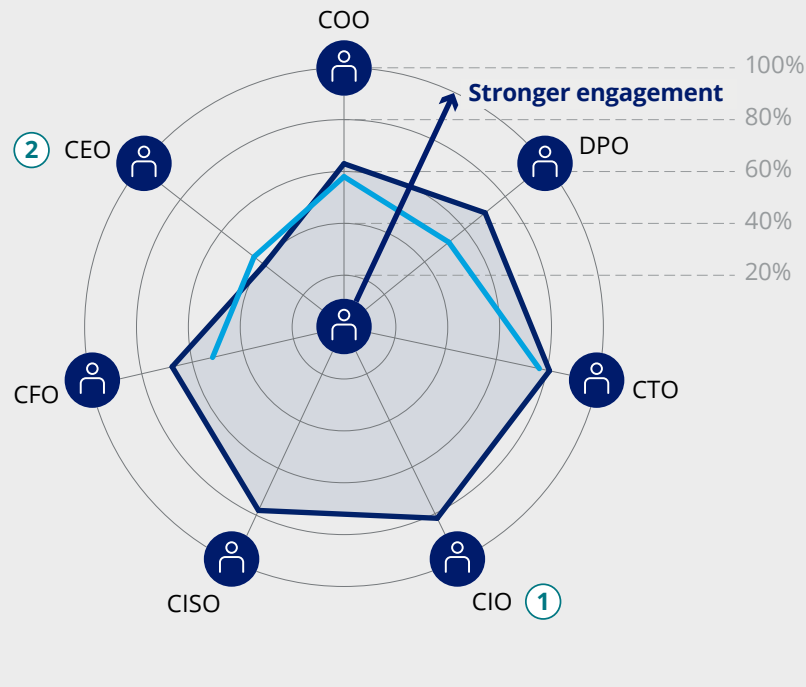
1 CDOs engage most with their CIO (82%) and their CTO (81%) on regular basis, indicating strong technical alignment.

2 Despite a continued desire to see stronger, improved relationships with their CEO, CDOs indicate that they have limited engagement with them, with only 39% engaging with them on a regular basis. This appears to have declined in comparison to last year.

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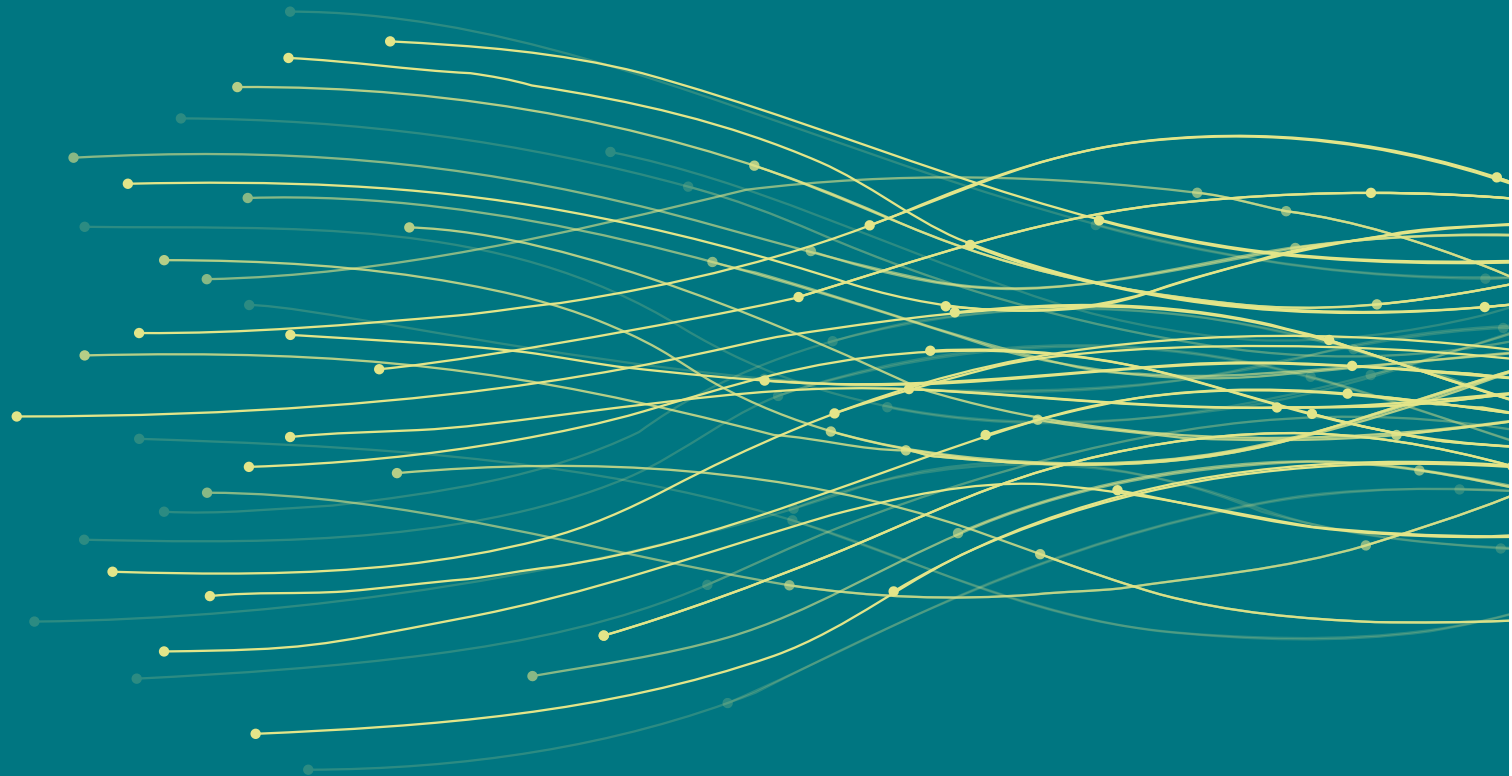Effect and impact

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Priorities of the CDO

03 Focus areas: priorities of the CDO

CDOs key priority areas

The CDO role encompasses a wide range of responsibilities, reflected in their varying priorities for the next 12 months. These priorities span artificial intelligence (AI) and generative artificial intelligence (GenAI), alongside core functions such as building the business case for data investment, data governance and analytics.

There are quite markedly different priorities between CDOs in different industry sectors and between different data culture strengths. AI/GenAI are the top priorities for Financial Services (59%) and Corporates (50%) but only 4th highest for Government and Public Sector (36%). The industries prioritising AI/GenAI can be attributed to the significant growth and potential of using AI/GenAI to drive business value.

Developing compelling business cases for data investments ranked highest for Government and Public Sector (56%), whilst being 3rd highest for Financial Services (35%) and Corporates (36%). This indicates the ongoing challenge of securing funding for data initiatives, even when those initiatives hold the potential to advance strategic objectives.

CDOs are seeking to translate their data strategies into tangible, measurable outcomes that will support funding requests.

Interestingly, CDOs also continue to prioritise core data foundations. Data governance, insights and analytics, and data strategy remain crucial with 35%, 35%, and 33% of CDOs respectively focusing on these areas.

This sustained emphasis over the past few surveys highlights that robust foundational data capabilities are a core enabler for CDOs to unlock the full potential of data.

Data can be seen on the next page

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03   Focus areas: priorities of the CDO

CDOs key priority areas by sector

Click on below components to filter and view data for each industry group:

03   Focus areas: priorities of the CDO

CDOs key priority areas by culture

The data culture of an organisation has a big impact on priorities with mature organisations being able to prioritise value add (AI and insights and analytics), whereas less mature organisations are prioritising business case investment for data and data strategy.

Click on below components to
filter and view data for each
industry group:

03 Focus areas: priorities of the CDO

CDOs key priority areas

Organisational needs and objectives vary significantly, precluding a one size fits all approach to strategy. Despite this, we can still identify trends to guide CDOs in prioritising their efforts, based on their organisations' current data maturity and strategic goals.

% of CDOs focused on AI

Larger organisations have a greater focus on AI
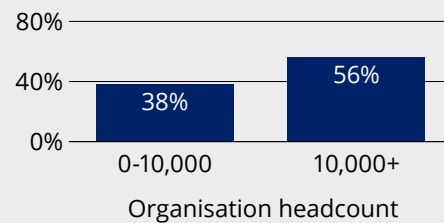
CDOs at larger organisations (10,000+ employees) demonstrate a stronger emphasis on incorporating AI/GenAI solutions.

56% of CDOs in this category are prioritising AI, compared to 38% of CDOs from organisations with smaller workforces.

This suggests that larger organisations, often with more resources and complex data landscapes, are further along in their AI adoption journeys.

% of CDOs focused on AI

The Government and Public Sector places the highest priority on improving data quality
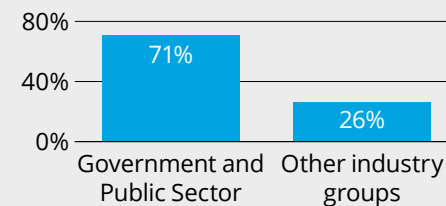

CDOs from the Government and Public Sector demonstrate a significantly stronger emphasis on data quality compared to other industries. Over **70% of CDOs** identify it as a key focus area for the next 12 months. In contrast, only one-quarter of CDOs in other industries prioritise data quality to the same extent.

This difference likely reflects the heightened scrutiny and the critical importance of accurate data for informed decision-making in the Government and Public Sector. Also, the potential consequences of poor data quality are often more pronounced in the Government and Public Sector.

% of CDOs focused on securing investment for data initiatives

CDOs in organisations with weaker data culture* place higher priority on securing investment for data initiatives
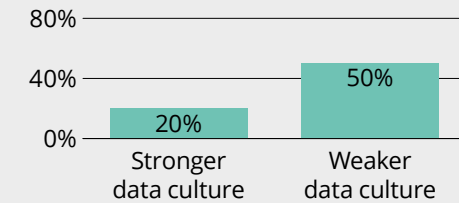
CDOs who rated their organisations as having a strong data culture are placing less emphasis on developing business cases for investment in data this year.

Only **20% of CDOs** who believe they have a strong data culture wanted to prioritise this over the next 12 months. In contrast, this figure rises to **50% for CDOs** who perceive their organisation's data culture as weaker.

* To provide deeper insights, this report segments organisations based on data maturity and data culture. The classifications utilise self-reported rankings (on a scale of 1 to 5) provided by CDOs within the survey. It's important to note that these groupings are based on individual perceptions and haven't undergone formal evaluation.

03 Focus areas: priorities of the CDO

Realising the vision for data

Whilst data strategy was a top priority for most CDOs last year (61%), this year it has dropped to 33%. This shift does not necessarily signal a decrease in importance, but rather may reflect a move from strategy development to implementation. This notion is supported by the fact that a significant proportion (73%) of CDOs now have a data strategy in place, with most (58%) confirming that their strategy aligns with the wider organisational objectives.

Despite this progress, establishing a data strategy is no easy task. CDOs cite organisational culture as the most significant challenge, followed by the quality and availability of data, implementation costs, and a skills gap.

A data strategy is a key tool in building relationships with stakeholders across an organisation, which is recognised across industry groups. Notably, Government and Public Sector organisations demonstrate the highest adoption rate at 88%, compared to 67% in Financial Services and 65% in Corporates.

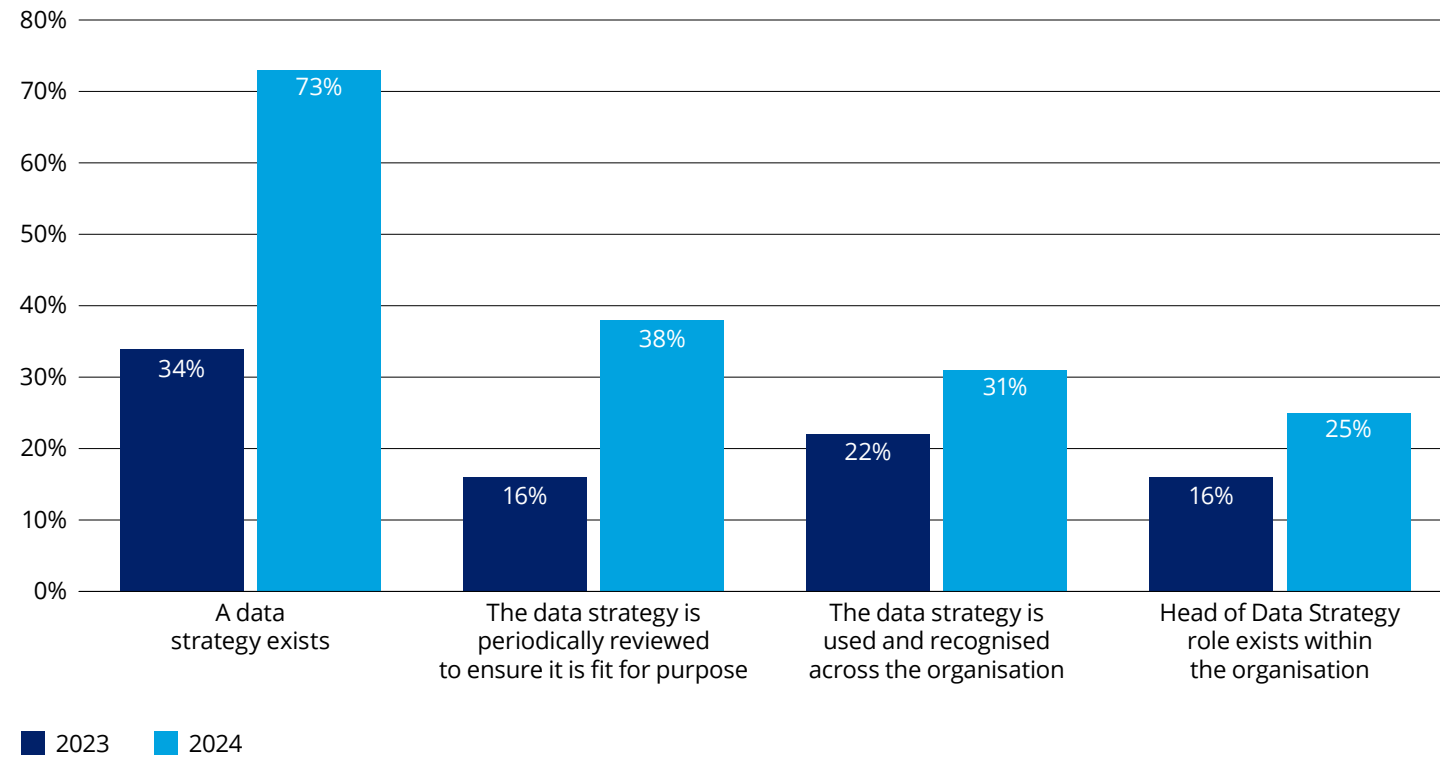**79%** of CDOs said culture was the biggest challenge in implementing their data strategy.

Data can be seen on the next page

03 Focus areas: priorities of the CDO

Realising the vision for data

A significant majority (73%) of CDOs have a data strategy in place, and we also observe an increase in strategy maturity. This demonstrates a sustained commitment among CDOs to develop their strategy and utilise it as a tool to articulate their vision.

How has data strategy maturity increased since last year?

	A data strategy exists	The data strategy is periodically reviewed to ensure it is fit for purpose	The data strategy is used and recognised across the organisation	Head of Data Strategy role exists within the organisation
2023	34%	16%	22%	16%
2024	73%	38%	31%	25%

■ 2023 ■ 2024

Artificial intelligence

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03 Focus areas: artificial intelligence

How is AI changing the role of the CDO?

The potential of AI is gaining significant attention, prompting CDOs to explore and advance its adoption within their organisations.

Our perspective

AI and GenAI offer a transformative toolkit for organisations seeking to thrive in a data-driven world. From automating tasks and boosting efficiency to unlocking new levels of creativity and personalised customer experiences, AI empowers businesses to make smarter decisions, optimise processes, and innovate at an unprecedented pace.

By embracing these technologies responsibly, organisations can unlock new opportunities, enhance their competitive edge, and navigate the future with greater confidence. It is the CDO who plays a key role in enabling this, through driving access to fit for purpose and controlled data and potentially in delivering the AI solutions. It is evident that CDOs recognise this potential:

75% of CDOs who are the most senior person responsible for AI in their organisation are prioritising its use.

However, the evolving regulatory landscape, including the EU AI Act, the upcoming Digital Product Passport requirements and the EU Data Act introduce new complexities. CDOs now face heightened responsibilities related to data governance, quality assurance, and the ethical use of data in AI systems. It is important to note that this survey data, collected in Spring 2024, may not fully reflect the impact of these recent regulatory changes.
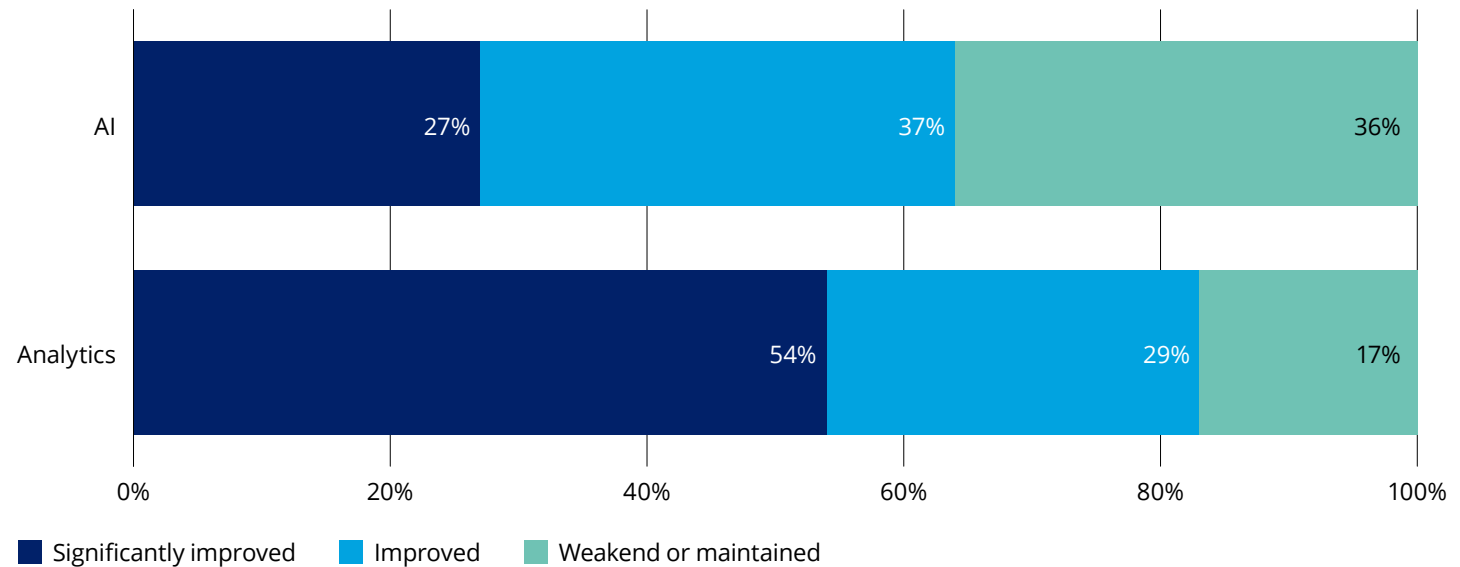
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03 Focus areas: artificial intelligence

How is AI changing the role of the CDO?

When reflecting on their roles, CDOs report that their most significant contribution to their organisation lies in the adoption of AI and analytics.

- **83%** of CDOs indicate that they have improved the use of analytics within their organisation

- **64%** of CDOs report that they have improved the use of AI for their organisation.

How are CDOs contributing to driving AI and analytics adoption?

	Significantly improved	Improved	Weakend or maintained
AI	27%	37%	36%
Analytics	54%	29%	17%

■ Significantly improved   ■ Improved   ■ Weakend or maintained

03   Focus areas: artificial intelligence
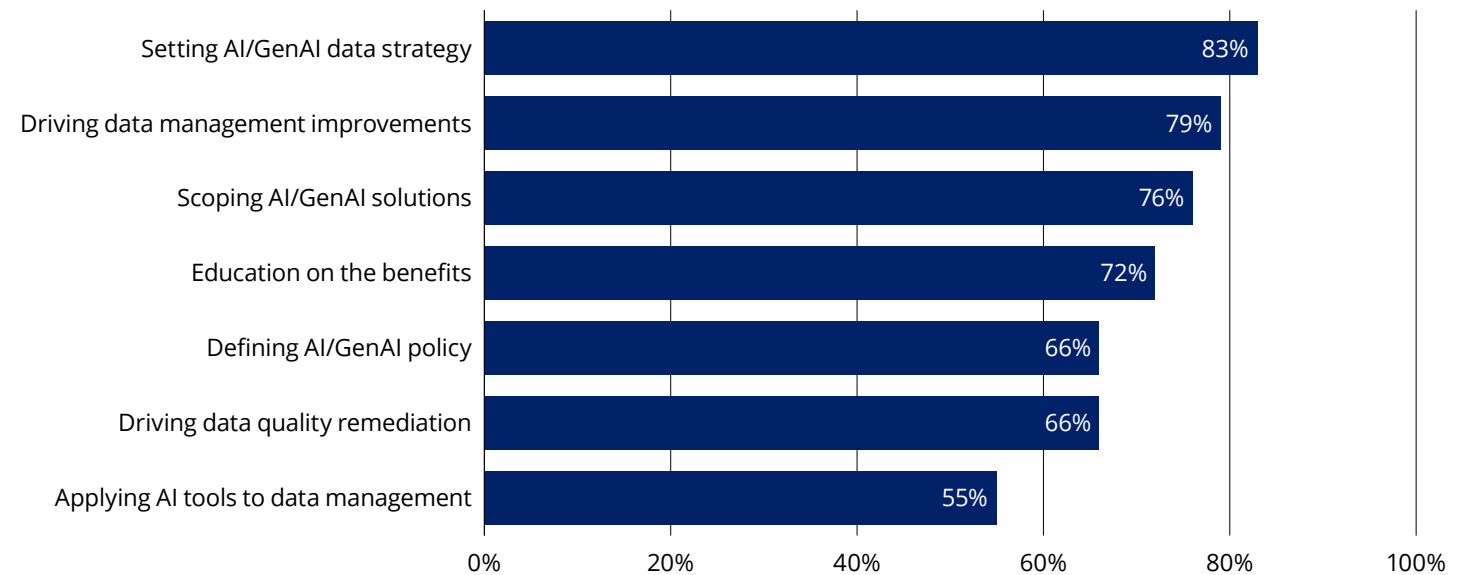
How are CDOs using AI in their roles?

CDOs are looking to leverage AI and data-driven insights to unlock business value, identify new opportunities, and drive innovation.

CDOs are enabling AI opportunities for their organisations in a variety of ways. Some are focusing on developing tools to help sell AI capabilities to their colleagues. For example, **83%** of CDOs said they are setting AI and GenAI data strategies and **72%** said they were educating their teams on the benefits of such initiatives.

CDOs also demonstrated that they are focusing on developing the foundational work for successful AI implementation.

79% of CDOs said they were driving data management improvements, while **76%** said they were identifying and scoping appropriate solutions and **66%** said they were actively driving data quality remediation.

How are CDOs contributing to driving AI and analytics adoption?

Category	Percentage
Setting AI/GenAI data strategy	83%
Driving data management improvements	79%
Scoping AI/GenAI solutions	76%
Education on the benefits	72%
Defining AI/GenAI policy	66%
Driving data quality remediation	66%
Applying AI tools to data management	55%

03   Focus areas: artificial intelligence
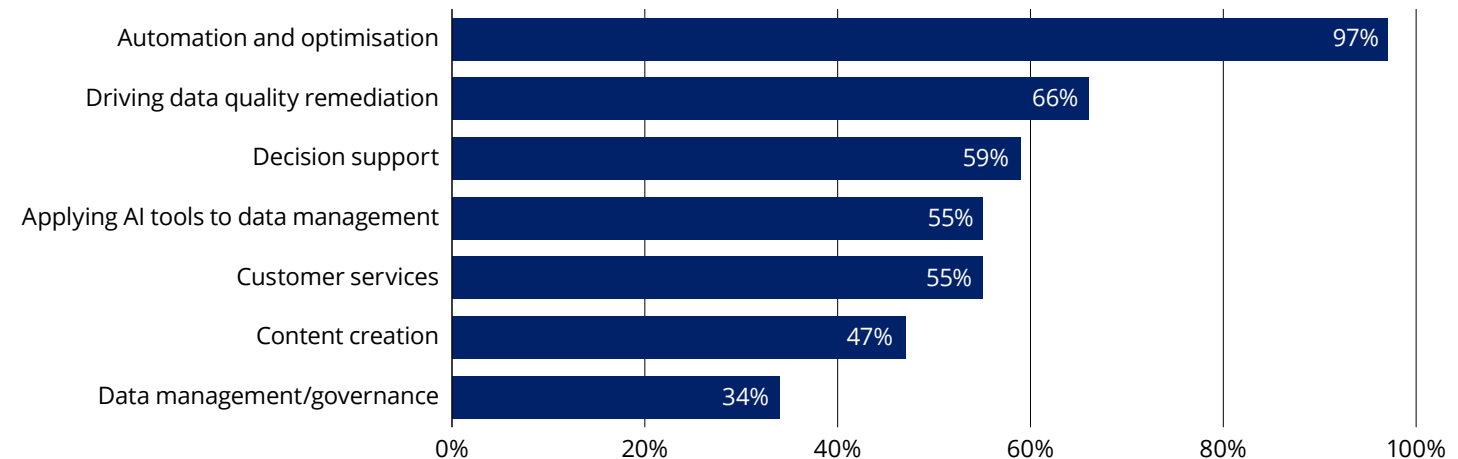
The rise of AI for data teams

From automating complex data analysis to extracting insights, and even creating synthetic data for training purposes, AI is transforming the data landscape. To realise AI's full potential, critical challenges must be addressed including data culture, data quality, and skills gaps.

Organisations are increasingly embracing AI's transformative potential, exploring a wide range of innovative use cases. Automating tasks and optimising processes emerges as a dominant focus, with the majority (97%) leveraging AI for this purpose.

Similarly, GenAI is gaining significant traction, with 96% of CDOs currently using or planning to use GenAI. The most common use cases include chatbot development, creating AI-powered digital assistants, and developing marketing content.

These trends highlight a clear shift towards harnessing AI's power for enhanced efficiency, innovation, and customer engagement. This is compounded by the results seen on the previous page where the application of AI in data management was the least popular way in which CDOs were enabling AI opportunities.
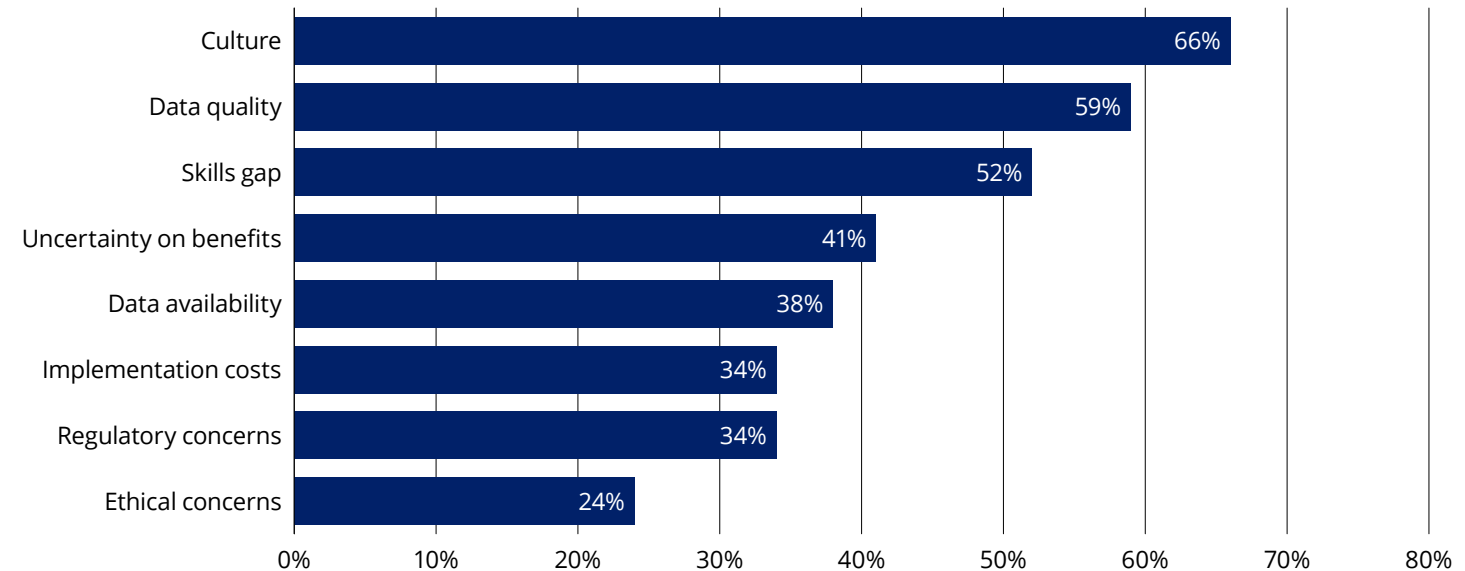
What are the main AI use cases?

Use case	Percentage
Automation and optimisation	97%
Driving data quality remediation	66%
Decision support	59%
Applying AI tools to data management	55%
Customer services	55%
Content creation	47%
Data management/governance	34%

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03   Focus areas: artificial intelligence

The challenges to succesful AI adoption

CDOs identify culture, data quality and skills gaps as the most significant hurdles to successful AI adoption.

What challenges are CDOs facing in driving AI adoption?

Challenge	Percentage
Culture	66%
Data quality	59%
Skills gap	52%
Uncertainty on benefits	41%
Data availability	38%
Implementation costs	34%
Regulatory concerns	34%
Ethical concerns	24%

Organisation and operations

03 Focus areas: organisation and operations

Data teams – size

CDOs indicate team size has increased and express an appetite for continued expansion.

The size of the CDO's data team is on the rise, with 73% of the respondents indicating an increase in the last 12 months. 59% of CDOs also expect their team to continue to expand over the next 12 months.
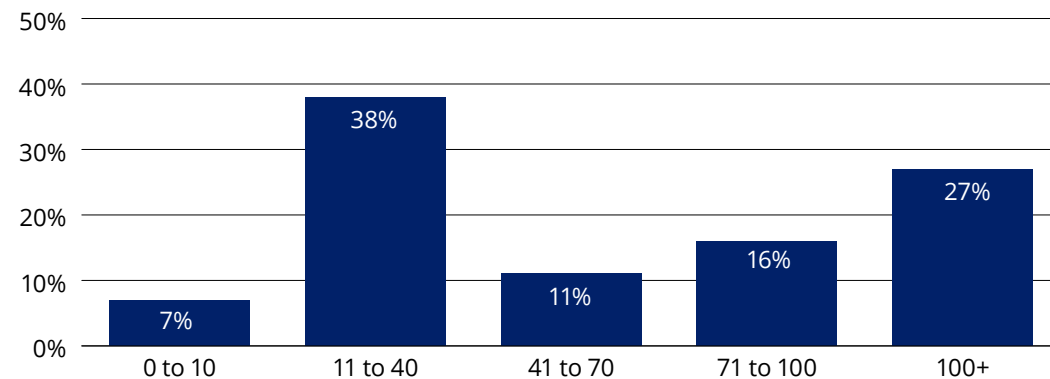
Relative to the size of the organisation, data teams account for a lesser proportion of the overall organisational headcount in comparison to previous years. We estimate, on average, data teams account for ~1.1% of overall headcount.

How has the data team size changed, and how do CDOs expect it to change?

	Decrease	No change	Increase
Change in the past 12 months	20%	7%	73%
Expected change in next 12 months	26%	15%	59%

Legend: ■ Decrease ■ No change ■ Increase
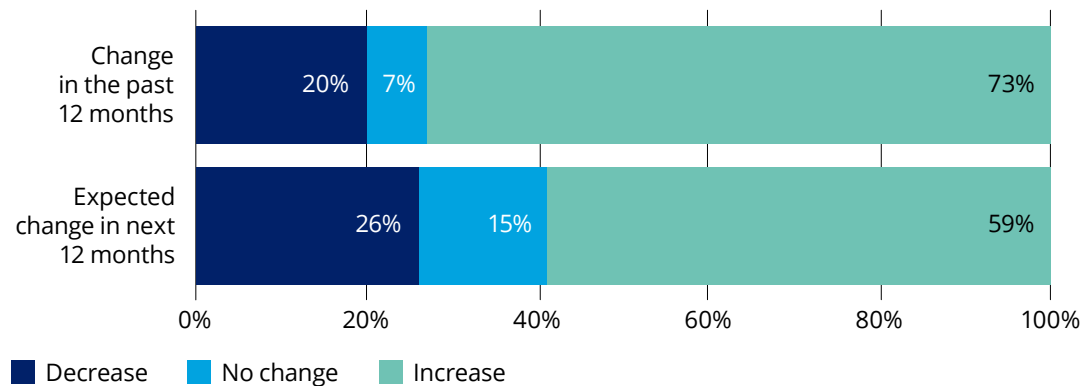
How many individuals are in the data team?

0 to 10	11 to 40	41 to 70	71 to 100	100+
7%	38%	11%	16%	27%

03 Focus areas: organisation and operations

Data teams – direct reports

CDOs direct reports are critical for building strong data capabilities and managing growing data teams.

There was a slight increase in the average number of direct reports for CDOs, with 47% indicating five to eight direct reports, compared to 44% last year. On average, CDOs now have seven direct reports.

However, we observe variations in how the number of direct reports are changing for CDOs depending on how many they currently have. CDOs who had less direct reports, have on average seen an increase in the number of direct reports compared to last year, whereas CDOs who had more direct reports have on average seen a decline in number of direct reports compared to last year.

How many direct reports do CDOs have?

	0	1 to 4	5 to 8	9 to 12	13+
2023	1%	28%	44%	16%	11%
2024	0%	31%	47%	13%	9%

■ 2023 ■ 2024
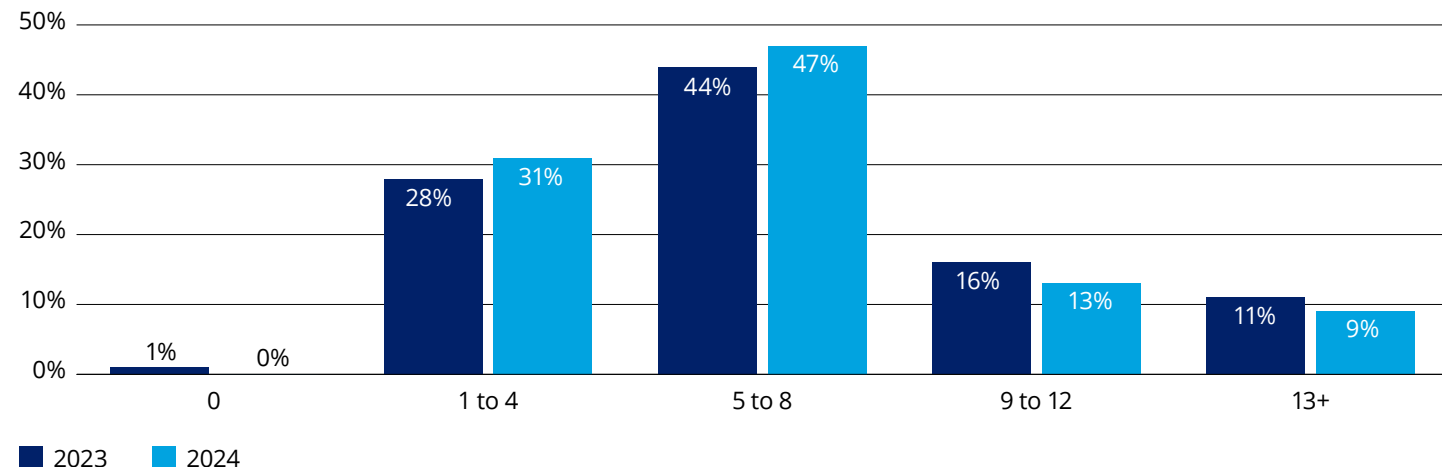
03   Focus areas: organisation and operations

Data teams – skills

The importance of data skills continues to grow for organisations. Whilst CDOs have successfully established strong data teams, there's a continued desire to build in new specialist expertise.

Foundational data skills such as data management, analysis and governance, are consistent strengths CDOs have retained within their teams.

However, when we examine more specialist technical skill sets, we see a decrease in representation across teams even though CDOs are keen to integrate skills like data architecture and machine learning.

Interestingly, existing skills within data teams vary across industry groups:

- Corporates have a high concentration of data management and data warehousing skills

- Financial Services organisations have a high volume of data management and data quality skills

- Government and Public Sector organisations have a high concentration of data analysis and data engineering skills.

Data can be seen on the next page

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03 Focus areas: organisation and operations

Data teams – skills

Click on the below components to
filter and view data by industry group:

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03 Focus areas: organisation and operations

Data teams – skills

Although CDOs generally believe their data teams possess a solid foundation of core competencies, they recognise the importance of continuous growth to bridge skills gaps and adapt to evolving organisational demands. Interestingly, the specific skills sought after by CDOs vary based on their organisation's data culture and maturity.

Organisations with stronger data cultures are focused on advanced capabilities, seeking talent in areas like machine learning (ML), artificial intelligence (AI), generative AI (GenAI), and data science. These organisations already have strong foundations in core data disciplines such as data management, data analysis, data quality, and warehousing.

Organisations at an earlier stage in their data journey are investing in both technical and cultural skills. While there's still a strong demand for AI expertise, these organisations are placing equal importance on skills that drive data literacy, stakeholder communication and change management. Building robust data architectures is also a key priority as these organisations work towards strengthening their overall data culture.

We found results to be similar when comparing organisations with strong data maturity and weak data maturity.
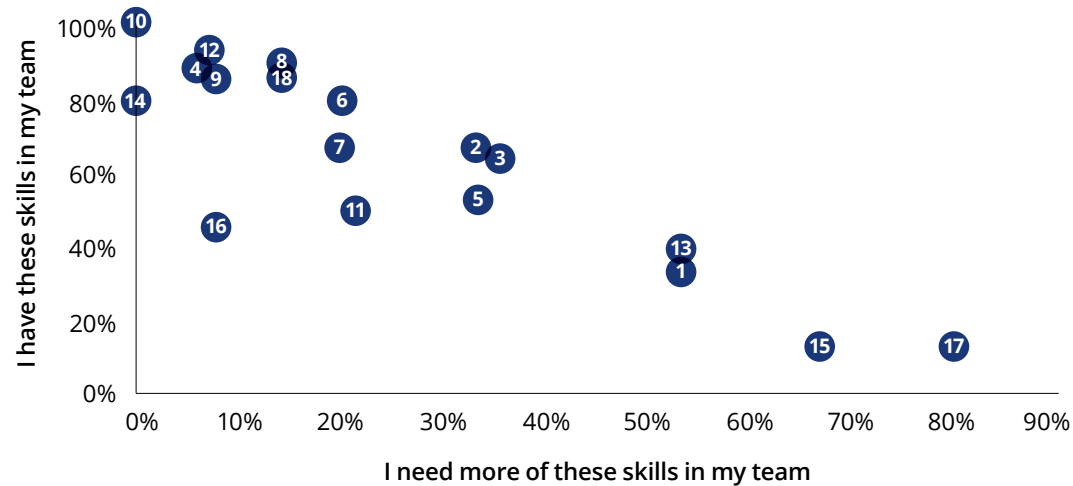
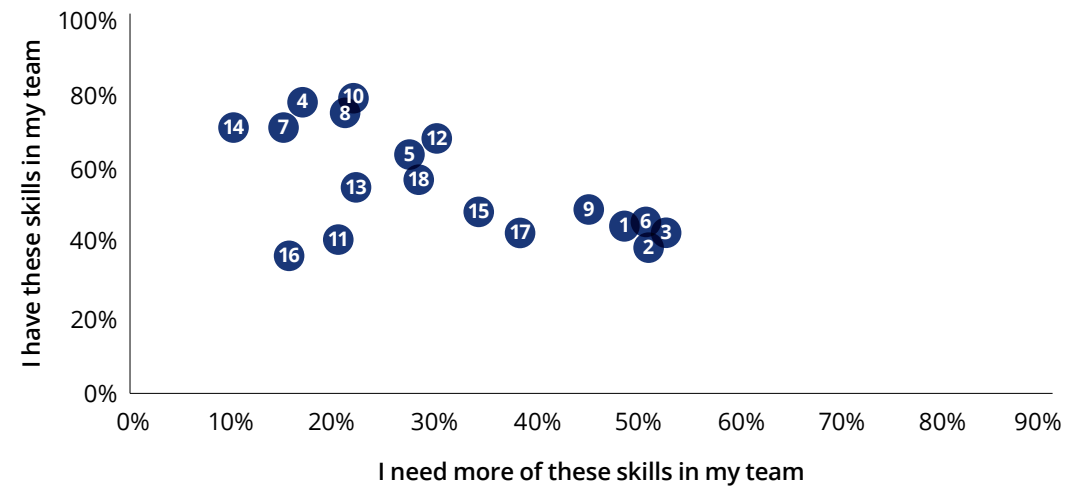**03   Focus areas: organisation and operations**

Data teams – skills

Current skills vs. needed skills in data teams – by culture*

Organisations with strong data culture

Organisations with weak data culture

① Artificial intelligence ② Change management ③ Communication/storytelling ④ Data analysis/visualisation ⑤ Data architecture ⑥ Data culture

⑦ Data engineering/cloud management ⑧ Data governance ⑨ Data literacy/training ⑩ Data management ⑪ Data privacy ⑫ Data quality ⑬ Data science

⑭ Data warehousing/extract transform load ⑮ GenAI ⑯ Incident management and response ⑰ Machine learning ⑱ Project/programme management

* We found results to be similar when comparing organisations with strong data maturity and weak data maturity.

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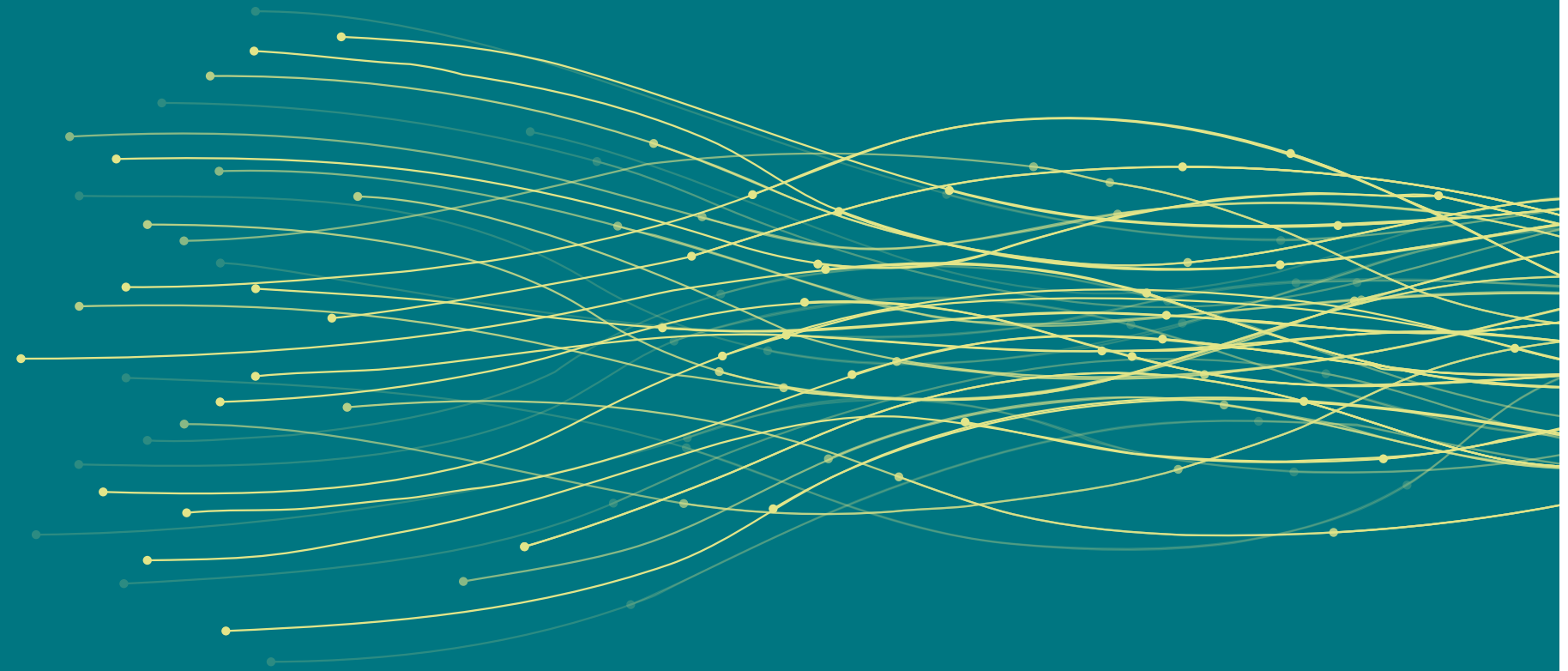
Effect and impact

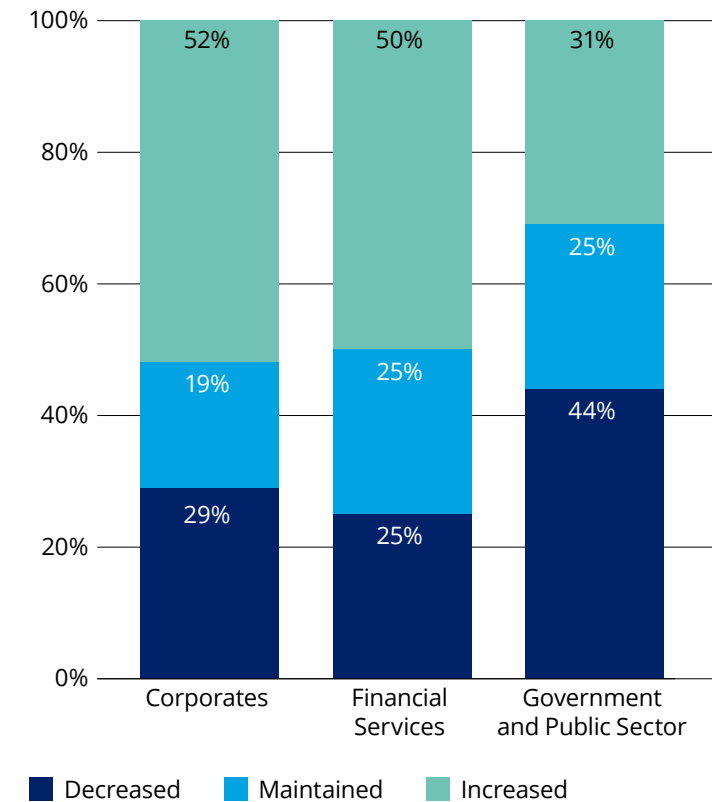**03   Focus areas: effect and impact**

Budgets

> Despite representing a relatively small proportion of overall organisational spend, data budgets are changing. Whilst some CDOs have seen their budgets grow, others have experienced budget cuts.

On average, 45% of CDOs have seen an increase in their budgets over the past 12 months, after expressing they would like to witness an increase in last year's survey. That said, we recognise there are variations across industry groups.

Around half of CDOs in the Corporates and Financial Services industries have seen growth in their budgets over the past 12 months (50% and 52% respectively).

CDOs from the Government and Public Sector industry indicate a more negative impact on budget with 44% highlighting budgetary cuts in the past year. Overall, across all industry groups, on average, 25% of CDOs stated that they have experienced budgetary cuts which has risen from last year (23%).

How have have budgets changed?

Legend: ■ Decreased ■ Maintained ■ Increased

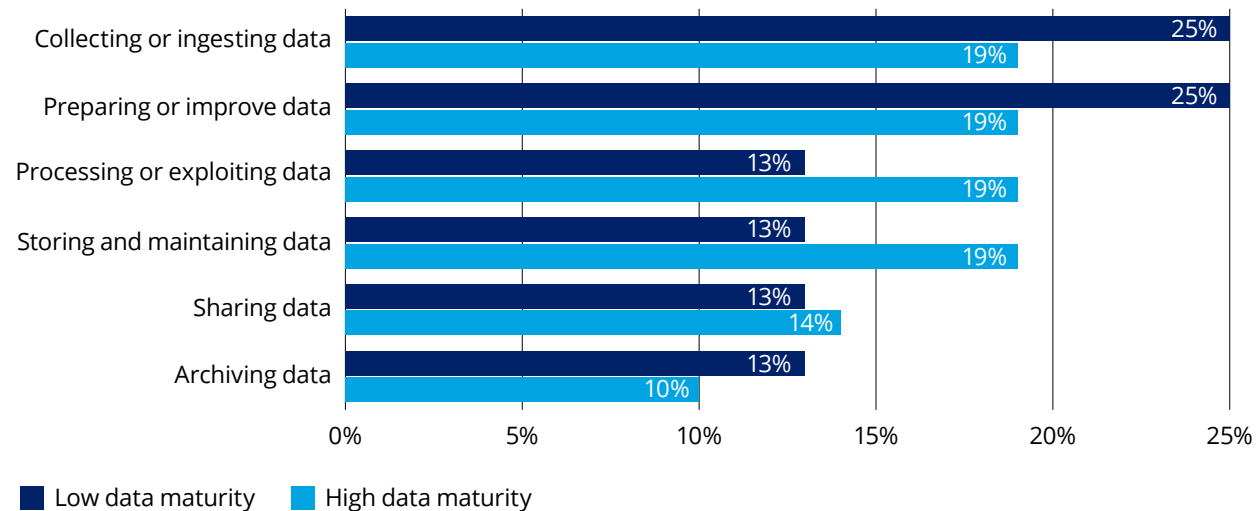| Industry	Decreased	Maintained	Increased
Corporates	29%	19%	52%
Financial Services	25%	25%	50%
Government and Public Sector	44%	25%	31%

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03 Focus areas: effect and impact

How do CDOs allocate their budgets?

Across all industry groups, CDOs allocate budget consistently across the data lifecycle to drive data improvements.

We observe that CDOs have relatively consistent spend across the data lifecycle. The largest proposition of spend is on collecting and ingesting data, with the lowest proportion of spend is on archiving data. Organisations with lower data maturity are spending a bigger part of their budget on collating and preparing data for consumption and processing.

In contrast to last year, CDOs demonstrate a balanced approach to budget allocation, strategically dividing resources between essential operational expenditures to run the organisation, investments in tools and technology, and driving organisational change.

How is budget allocated across data capabilities, based on data maturity?

Capability	Low data maturity	High data maturity
Collecting or ingesting data	25%	19%
Preparing or improve data	25%	19%
Processing or exploiting data	13%	19%
Storing and maintaining data	13%	19%
Sharing data	13%	14%
Archiving data	13%	10%

■ Low data maturity ■ High data maturity

How is the budget for data teams being used?

	2023	2024
Change the organisation	25%	34%
Run the organisation	54%	35%
Tools and technology	21%	31%

■ 2023 ■ 2024

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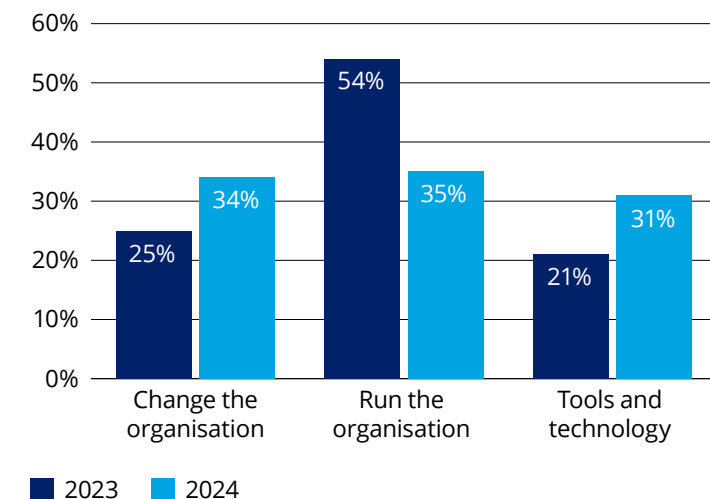
03 Focus areas: effect and impact

Who do CDOs report into?

Whilst reporting structures for CDOs still vary, our findings show that 72% of CDOs report directly to a C-Suite executive.
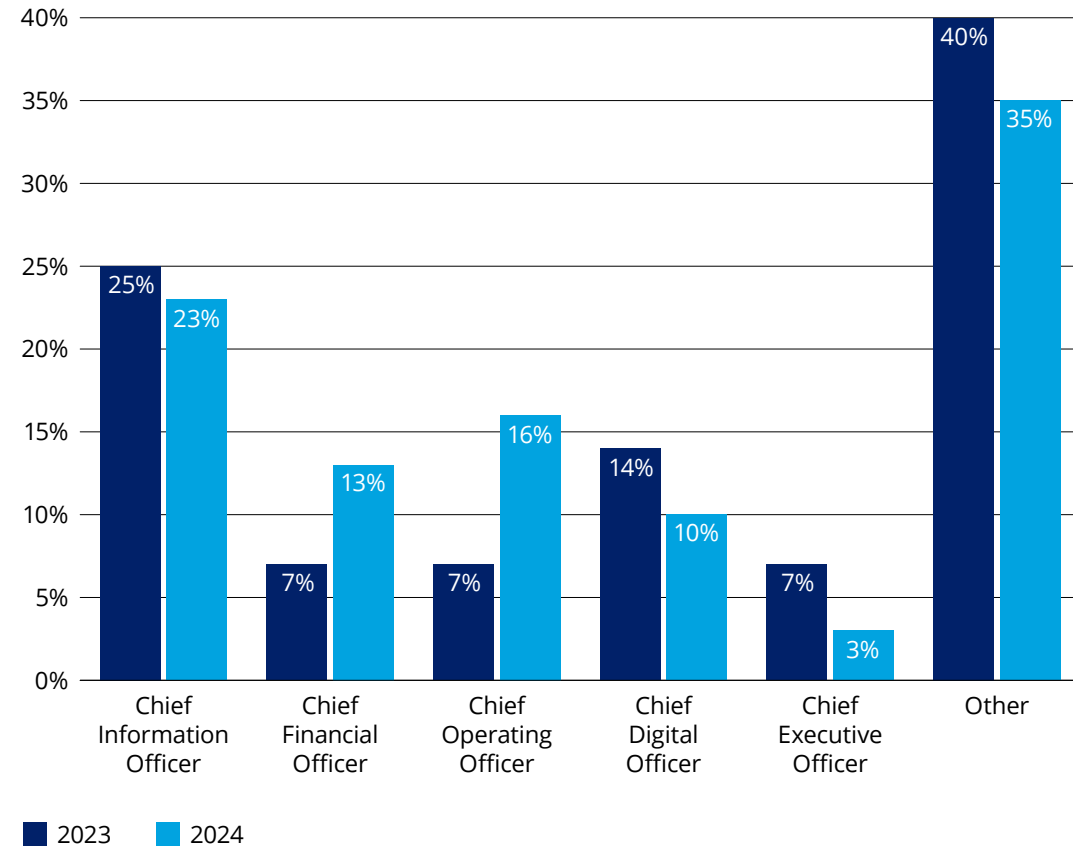
Our perspective

For CDOs, forging strong working relationships with senior executives is crucial for success. A direct reporting line into a C-Suite member can significantly contribute to this, fostering a strong partnership that enables CDOs to align with organisational objectives and create a cohesive approach to achieving goals.

Furthermore, close relationships with senior leaders can help CDOs secure funding and resources for data-driven projects. This is particularly vital for large-scale initiatives that empower organisations to leverage data effectively.

Who do CDOs report into?

Category	2023	2024
Chief Information Officer	25%	23%
Chief Financial Officer	7%	13%
Chief Operating Officer	7%	16%
Chief Digital Officer	14%	10%
Chief Executive Officer	7%	3%
Other	40%	35%

■ 2023 ■ 2024
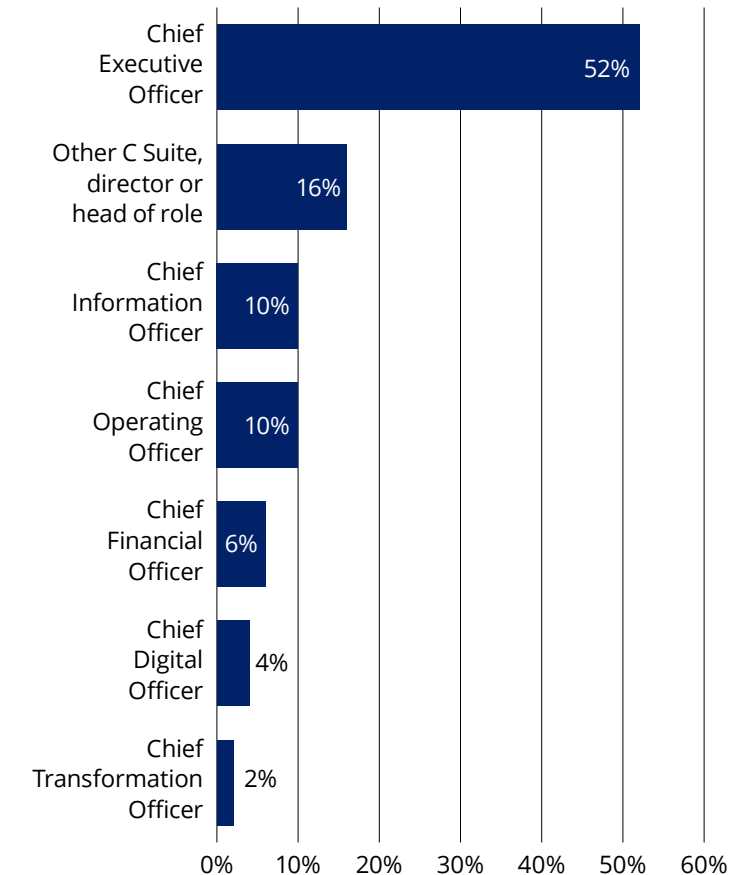
03   Focus areas: effect and impact

Who do CDOs want to report to?

There's a clear desire among CDOs for a more strategic reporting structure.

More than 50% of CDOs would like to report directly into their CEO, to deliver the best value for the organisation. Currently, a significantly lower proportion (3%) say they already do. Aligning the CDO role closer to the highest levels of leadership can unlock valuable insights and empower them to deliver value more effectively.

However, we question whether reporting to the CEO would actually be the best strategy for the CDO. As alignment with the C-Suite member most reliant on data may be more advantageous.

Who would CDOs like to report into?

Role	%
Chief Executive Officer	52%
Other C Suite, director or head of role	16%
Chief Information Officer	10%
Chief Operating Officer	10%
Chief Financial Officer	6%
Chief Digital Officer	4%
Chief Transformation Officer	2%

03 Focus areas: effect and impact

CxO relationships: understanding

The ability of a CDO to perform their role effectively heavily relies on understanding and support from C-Suite stakeholders. When executive leadership have a clear understanding of the CDO's role and actively champions their initiatives, it paves the way for successful, organisation-wide data strategies and initiatives. This top-down support is essential for creating a truly data-driven culture.

C-Suite stakeholders are demonstrating a growing awareness and understanding of the CDO role and its connection to business objectives.

03   Focus areas: effect and impact

CxO relationships: understanding

CDO's C-Suite relationships have improved over the last 12 months, most notably with Data Protection Officers (DPOs). Whilst the trend is positive, CDOs still can do more to strengthen relationships.

Whilst some progress has been made, a gap persists in the relationship between the CDO and their CEO, where 12% of CDOs continue to say that their CEO has no awareness of their role or responsibilities, compared to 8% last year.

Click on below components
to filter and view data for:

	2023 results	2024 results	Weak maturity	Strong maturity	Weak culture	Strong culture
COO	57%	65%	70%	61%	66%	64%
DPO	64%	78%	70%	84%	78%	77%
CTO	83%	82%	81%	83%	82%	82%
CIO		86%	84%	87%	86%	85%
CISO		77%	65%	88%	79%	69%
CFO	52%	61%	48%	75%	47%	100%
CEO	38%	49%	39%	57%	39%	73%

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03 Focus areas: effect and impact

CxO relationships: engagement

Active C-Suite engagement is an enabler for driving data improvements across the organisation. By collaboratively aligning on data initiatives and key objectives, organisations can ensure these efforts directly support broader strategic objectives and deliver impactful outcomes.
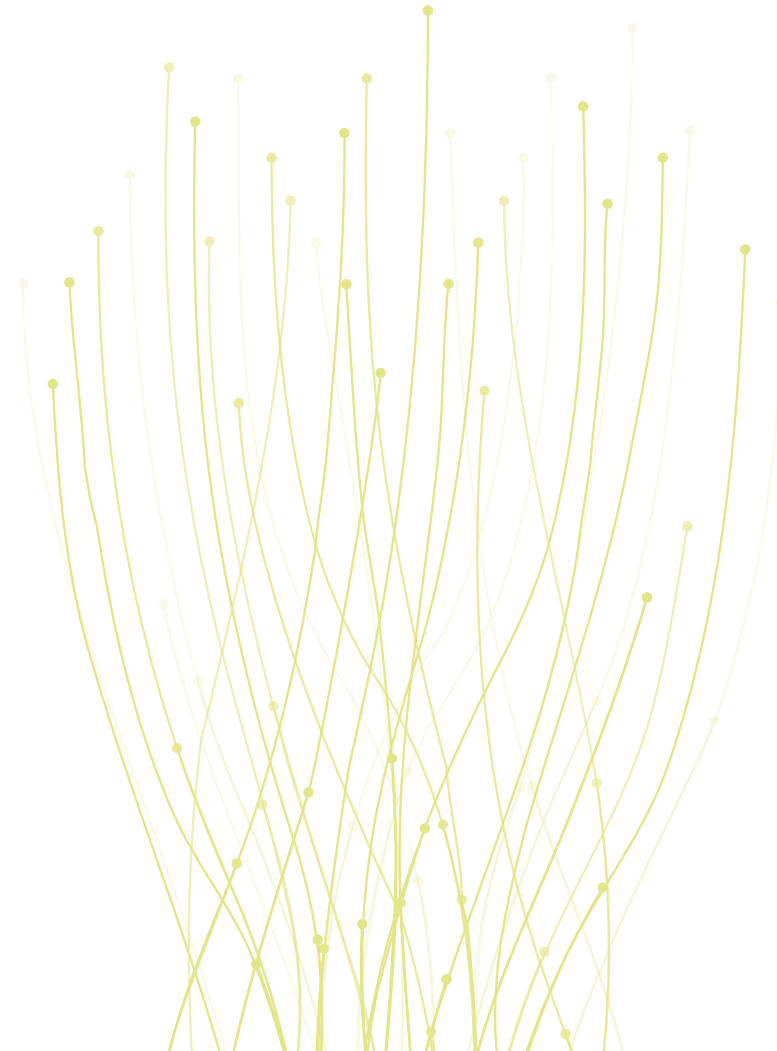
03   Focus areas: effect and impact

CxO relationships: engagement

We observe a strong correlation between how well C-Suite stakeholders understand the CDO role against how frequently they engage with them.

We observe that CDOs have the most frequent engagement with C-Suite stakeholders from a digital or technology background such as the CTO, CISO and CIO, where on average 80% of CDOs said they are engaging with these stakeholders on a regular basis.

Click on below components to filter and view data for:

	2023 results	2024 results	Weak maturity	Strong maturity	Weak culture	Strong culture
COO	58%	63%	68%	59%	67%	55%
DPO	52%	70%	53%	83%	67%	77%
CTO	77%	81%	85%	77%	87%	64%
CIO		82%	76%	86%	81%	85%
CISO		78%	77%	78%	81%	69%
CFO	52%	68%	68%	68%	63%	80%
CEO	44%	39%	32%	44%	37%	43%

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03 Focus areas: effect and impact

Impact of the CDO role

The impact of a CDO extends beyond enhancing data capabilities. They drive lasting improvements across the organisation by unlocking increased productivity, greater efficiencies, and ultimately, significant cost savings and revenue growth.

CDOs have a crucial role that extends beyond their specific function and spans the entire organisation. Their influence inspires a cultural shift towards data-driven decision-making, driving improvements and unlocking efficiencies, particularly in optimising core business operations.

The majority of CDOs (66%) have successfully enabled their organisations to better leverage data to enhance business process efficiency and ensure regulatory and legal compliance.

This illustrates their pivotal role in streamlining essential, yet often complex, tasks.

How are CDOs making an impact for their organisation?

	Improved	Maintained	Weakened
Business process efficiency	66%	32%	2%
Regulatory and legal compliance	66%	25%	9%
Strategic business decision making	63%	32%	5%
Customer engagement	42%	41%	17%
Environmental, Social and Governance (ESG)	39%	29%	32%
Value tracking or return on investment	30%	44%	26%

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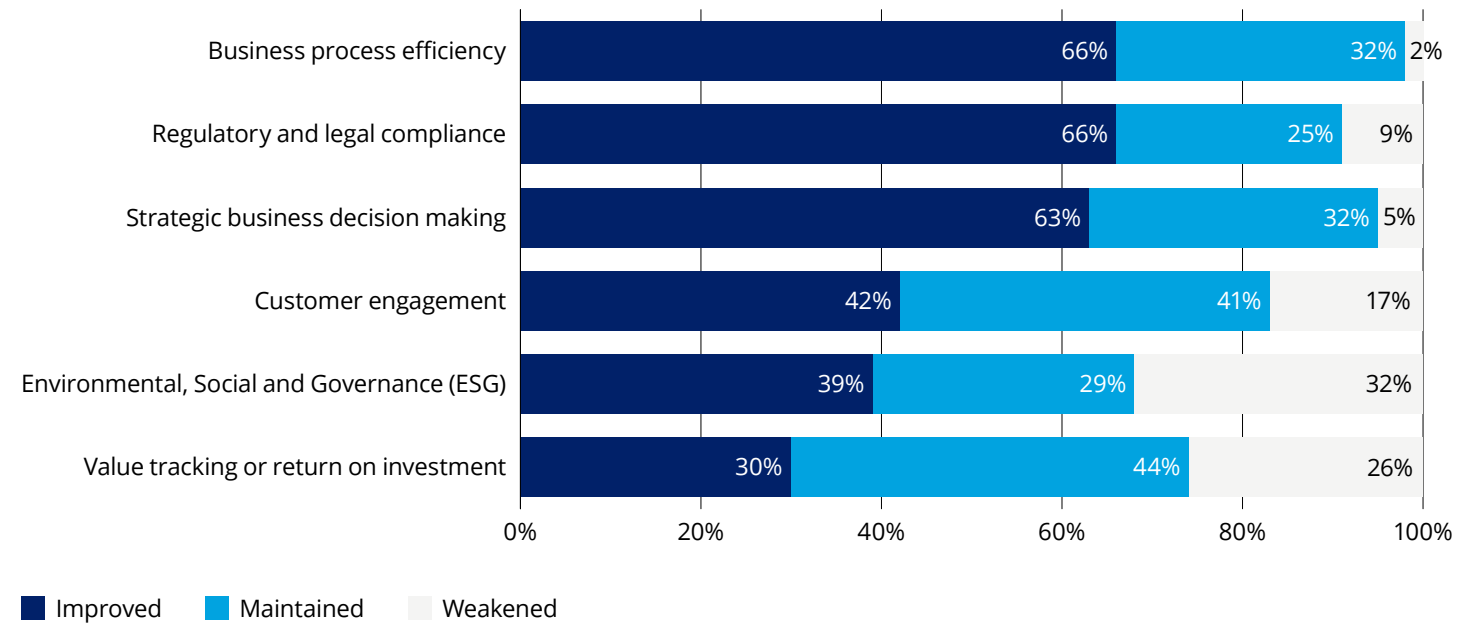
03 Focus areas: effect and impact

What challenges do CDOs face in achieving their ambitions?

> CDOs acknowledge that securing buy-in for data initiatives can be challenging for various reasons, and this has the potential to hinder the CDOs' ability to achieve their ambitions.

What hinders CDOs from achieving their goals?

CDOs may face resistance in realising their data ambitions due to challenges that vary depending on the organisation's specific circumstances, priorities, and data maturity levels.

Despite this variation, our analysis reveals some common challenges. Funding, resources, and data quality are frequently cited. This suggests that data initiatives are often deprioritised in favour of other organisational needs. This may be attributed to a lack of strategic vision and limited C-Suite engagement in championing data-driven initiatives. It could also be linked to failure of articulating compelling business cases that illuminate the transformative potential of data.

LACK OF SUPPORT
CAPACITY CONSTRAINTS
LACK OF OWNERSHIP
LEGACY ISSUES
INSUFFICIENT RESOURCES
DATA LITERACY
RELUCTANCE TO CHANGE
FUNDING CONSTRAINTS
GETTING BUY-IN
SCATTERED DATA SOURCES
CONFLICTING PRIORITIES
DATA QUALITY
SKILLS GAP

Click for enlarged view

The word cloud highlights the key challenges faced by CDOs in achieving their ambitions. The larger a word appears, the more frequently it was highlighted.

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The four faces of the CDO
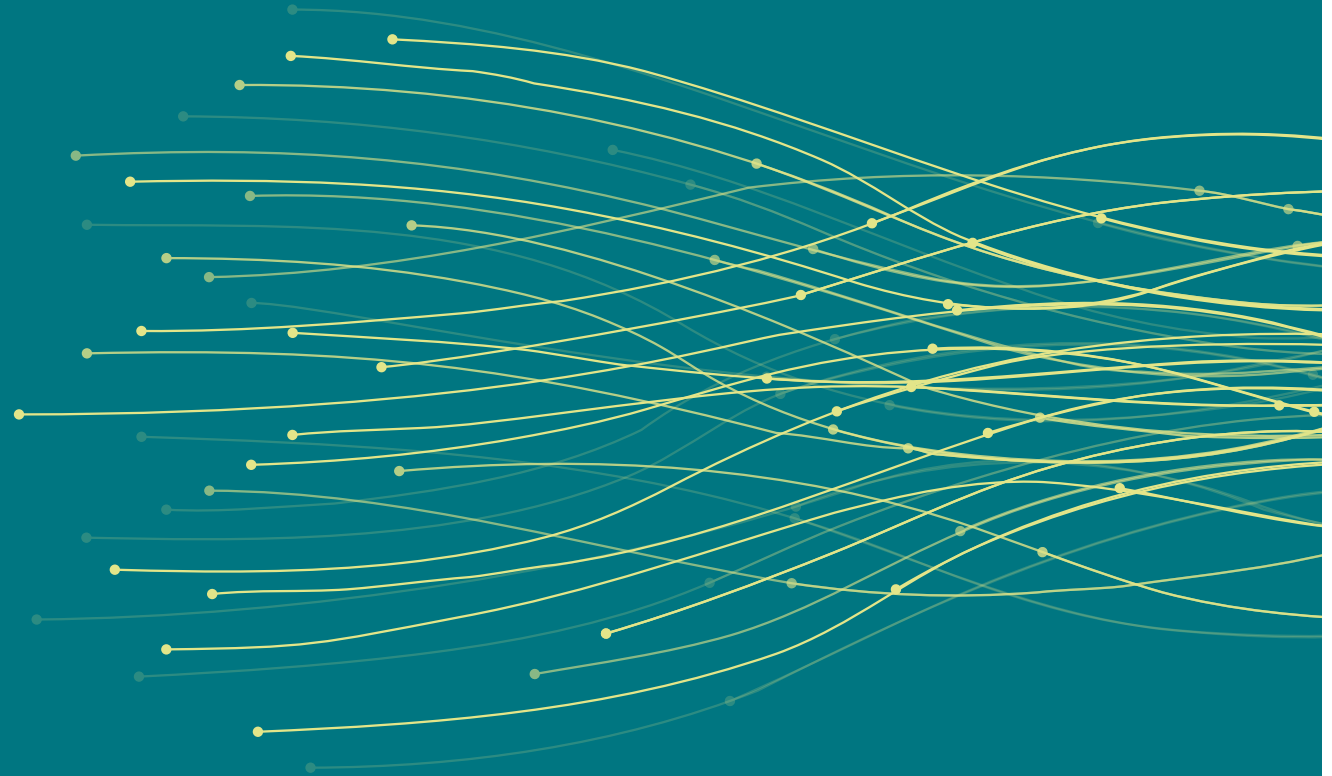
03   Focus areas: the four faces of the CDO

The four faces of the CDO framework

Using our four faces of the CDO framework, we asked participants where they currently spend their time and budget, and how different it is to where they want to spend their time and budget.

Catalyst
Championing the benefits of data, including analytics, for the organisation, influencing behaviours, and establishing a culture that adopts an insight-driven approach to strategic business decision-making.

Strategist
Providing leadership for data activities, and partners with the business to enable the use of data and insights as a strategic asset, to help achieve corporate objectives.

Technologist
Assessing new data platform technologies and designing data technology platform architectures to increase business agility and manage complexity.

Operator
Operating and delivering efficient data services and solutions to support the business, whilst managing risk and protecting core assets.

Leading Edge

Execution

Performance

Chief Data Officer

Control

Efficiency

Click on segments to read more

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03   Focus areas: the four faces of the CDO

The four faces of the CDO: catalyst

The catalyst aims to champion the benefits of data, including analytics, for the organisation, to influence behaviours and establish a culture that adopts an insight-driven approach to strategic business decision-making.

Key focus	Key roles
• leading the data and analytics innovation agenda for the organisation • changing organisational behaviour and establishing a value attitude.	• acting as the champion for data and analytics of the organisation to internal and external stakeholders • aligning strategic objectives and business benefits from an analytics perspective to enable better cultural adoption • nurturing ways of working with data and technology across the organisation.

Competencies	Critical issues
• confidence adapting to disruptive technologies and suggesting new ideas • business perspective, conflict management, organisational agility, and facilitation • strong communication and change management skills • understanding of key performance measurements to measure success of strategic initiatives • strong leadership skills.	• establishing a structure of enterprise-wide accountability for results and driving execution • gaining buy-in from business management for utilising data and analytics innovation • maintaining the enterprise-wide momentum for innovation and staying updated on the latest data and technology trends • implementing strategic initiatives whilst business models continue to change through extended business relationships, delivery models, and global expansion.

What CDOs told us

The catalyst role is increasingly dominating the CDO's agenda. This year, CDOs report dedicating 29% of their time in this role, up from 27% last year. This shift in focus is mirrored in budget allocation, with 20% now in the catalyst role, an increase from 14% previously.
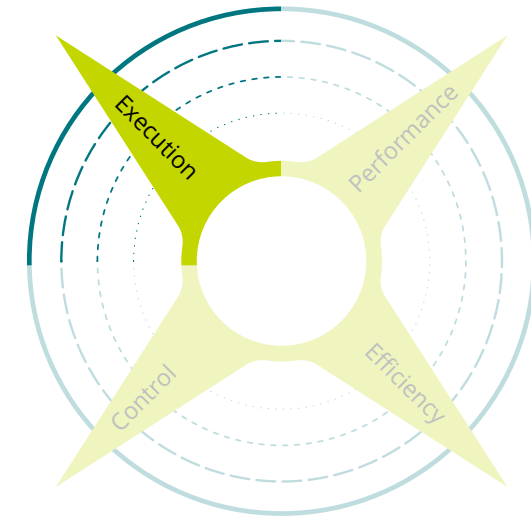
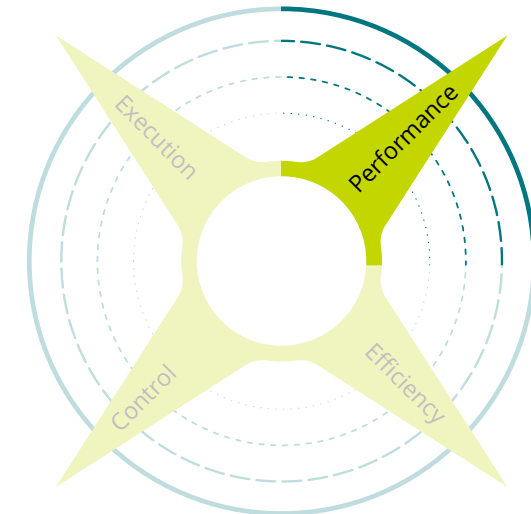**03   Focus areas: the four faces of the CDO**

The four faces of the CDO: strategist

The strategist aims to provide leadership for the data activities, and partner with the business to enable the use of data and insights as a strategic asset, to help achieve corporate objectives.

Key focus	Key roles
• helping set the future direction of the organisation to enhance business performance and shareholder value • establishing focus on the right analytics opportunities that generate business value.	• gaining business alignment to successfully identify, evaluate, and execute strategies • being a business partner with other CxOs and business unit leaders to educate on the value of data and analytics • generating cross-organisational value through data and analytics • creating an analytics and AI lens to support the effective execution of the organisation's strategic initiatives.
Competencies	**Critical issues**
• critical thinking, analysis, and presentation of data • global perspective, strategic agility, and dealing with ambiguity • data and analytics experience • strong business partnering skills • strong leadership skills.	• silos and varying levels of analytics understanding/maturity or buy-in across the organisation's departments • providing an analytical perspective on innovation, profitable business growth, and translating external trends into internal business imperatives • providing necessary analytics-related information and tools for the organisation to make sound business decisions.

What CDOs told us

CDOs continue to prioritise the strategist role, dedicating 32% of their time to this, consistent with last year. Furthermore, CDOs dedicate an average of 18% of their budget to the catalyst role, compared to 16% in the previous year, demonstrating a growing commitment to fostering a data-driven culture within their organisation.
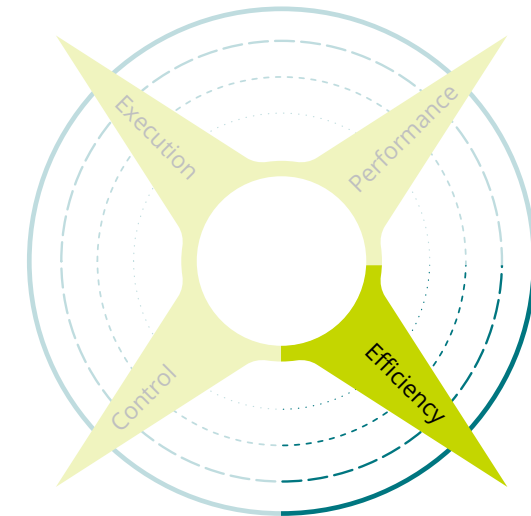
03 Focus areas: the four faces of the CDO

The four faces of the CDO: operator

The operator aims to run and deliver efficient data services and solutions that support the business whilst managing risk and protecting core assets.

Key focus	Key roles
• ensuring the efficiency and effectiveness of the operations of the data and analytics function • adding value to the organisation and keep a clear business case for data and analytics • industrialising analytics for the business.	• dynamically balancing cost, risk, and service levels in delivering on the data and analytics function's responsibilities • developing and managing a clear service catalogue • defining and adapting the analytics operating model to deliver for the organisation at scale, integrated with the enterprise-wide data architectural direction • developing data and analytics talent • establishing and leading on data and analytics benefits tracking.
Competencies	**Critical issues**
• confidence adapting to disruptive technologies and suggesting new ideas • business perspective, change and conflict management, organisational agility, and facilitation • strong communication and change management skills • understanding of key performance indicators to measure success of strategic initiatives • strong leadership skills.	• establishing a structure of enterprise-wide accountability for results and driving execution • gaining buy-in from business management for utilising data and analytics innovation • maintaining the enterprise-wide momentum for innovation and staying updated on the latest data and technology trends • implementing strategic initiatives whilst business models continue to change through extended business relationships, delivery models and global expansion.

What CDOs told us

CDOs are dedicating less time to operational tasks this year, with an average of 21% of their time spent in this area, compared to 26% last year. Conversely, budget allocation has seen a slight increase. CDOs now allocate 36% of their budget to the operator role, up from 39% last year.
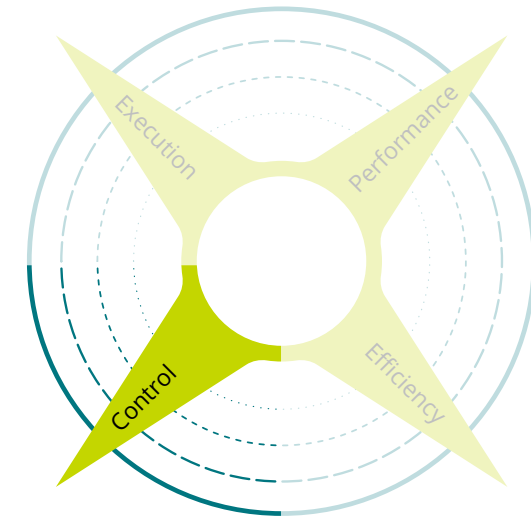
03   Focus areas: the four faces of the CDO

The four faces of the CDO: technologist

The technologist aims to assess new data platform technologies and design data technology platform architectures to increase business agility and manage complexity.

Key focus	Key roles
• leading the data technology innovation agenda for the organisation • leading the data disruption agenda for the organisation • changing organisational behaviour to use data and systems differently.	• acting as the champion for data technologies across the organisation to internal and external stakeholders • aligning strategic objectives and business benefits from an analytics perspective to enable better cultural adoption • defining and adapting the technology operating model so that it delivers for the organisation at scale and integrates with the enterprise-wide data architectural direction.

Competencies	Critical issues
• confidence adapting to disruptive technologies and suggesting new ideas • business perspective, change and conflict management, organisational agility, and facilitation • strong communication and change management skills • strong leadership skills.	• gaining buy-in from IT and the business for utilising analytics and innovative technologies • maintaining the enterprise-wide momentum for innovation and staying ahead of the latest data and technology trends.

What CDOs told us

CDOs are increasingly embracing the role of the technologist. They now dedicate 18% of their time to this area, up from 16% the previous year. Interestingly, whilst their time commitment has grown, budget allocation to technology has decreased from 31% to 26% year on year.
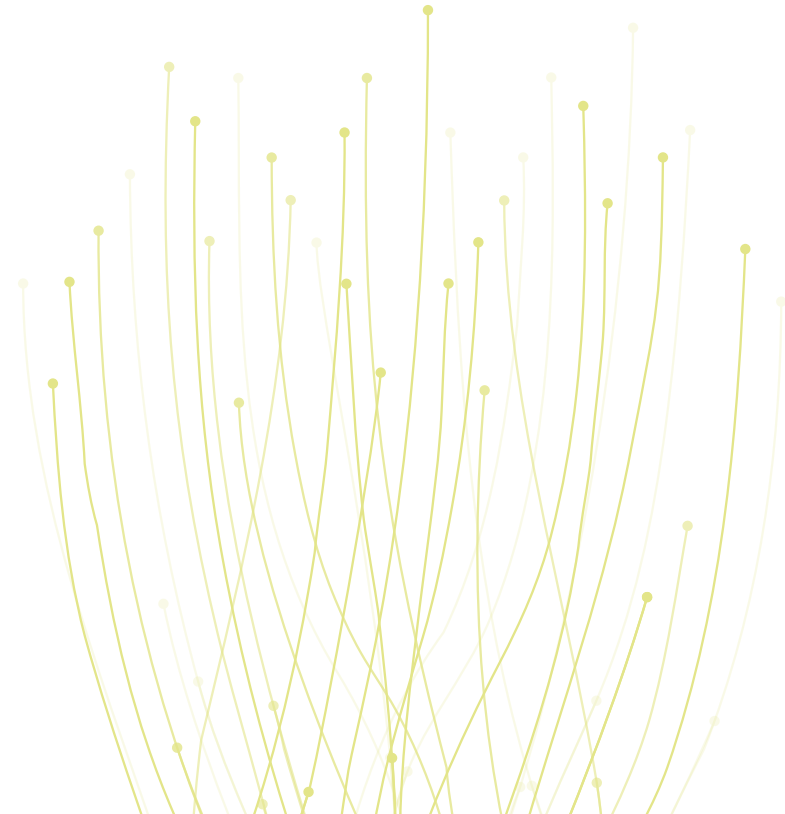
03   Focus areas: the four faces of the CDO

The four faces of the CDO: year on year comparison

Whilst CDOs have made progress in aligning their time and budget allocation with their desired roles, opportunities for further progress remains.

CDOs are strategically shifting their focus towards value-driving activities. Over the past year, CDOs have successfully dedicated more time to their roles as catalysts and strategists, driving innovation and shaping data strategy.

Whilst CDOs aimed to reduce time spent in the technologist role, this area has seen a marginal increase from 16% to 18% in the last 12 months.

03   Focus areas: the four faces of the CDO

The four faces of the CDO: year on year comparison

This strategic shift is mirrored in budget allocations. CDO's have successfully aligned their budget allocations in 2024 with the plans they had set out in our 2023 survey.

They have increased investments in initiatives related to the catalyst and strategist roles, and reduced spend in the operator and technologist roles.

Click on below components to filter and view data for:

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04   Approach

Survey methodology

Building on the success of previous years, the 2024 CDO survey took a similar approach to previous iterations of the survey. We invited a diverse group of CDOs from across all major industry groups including Financial Services, Government and Public Sector, and Corporates to participate.

Note: Corporates refers to organisations in the private sector including but not limited to: Telecommunications, Media and Technology, Energy, Resources and Industrials, Health Care and Life Sciences, and Consumer (including travel, leisure, retail, and services).

Our analysis of the survey responses informed the trends, observations, and insights discussed in this report. Whilst the report primarily uses the title "CDO," it acknowledges the participation of senior data leaders with similar responsibilities but different titles, such as "Director of Data" and "Head of Data".

To provide deeper insights, this report segments organisations based on data maturity and data culture. The classifications utilise self-reported rankings (on a scale of 1 to 5) provided by participants. It's important to note that these groupings are based on individual perceptions and haven't undergone formal evaluation.

04 Approach

Acknowledgements

The 2024 CDO survey represents a collaborative effort, and we are grateful to all who contributed.

We acknowledge the dedication of our authors and analysts for their research and insightful analysis, our thought leadership team for providing strategic direction, and our marketing team for ensuring its impactful dissemination.

Most importantly, we express our sincere appreciation to the **65 respondents, representing nine countries**: your participation has been invaluable in shaping the insights presented in this report. By sharing your insights, you are directly shaping the understanding of the evolving role of the CDO and the future of data.
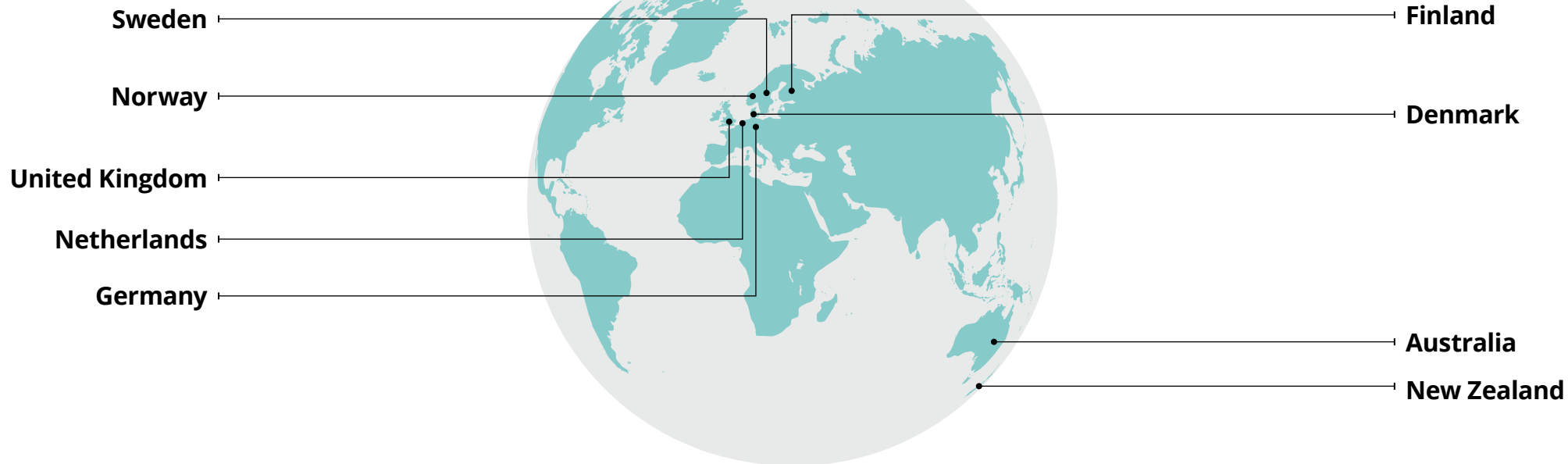
Sweden

Norway

United Kingdom

Netherlands

Germany

Finland

Denmark

Australia

New Zealand

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CDO programme

05 CDO programme

Chief Data Officer programme

Our Chief Data Officer programme focuses on supporting CDOs to grow and develop in their roles.

We have a programme of activities designed to empower data leaders in navigating current challenges and solidifying the strategic role of the CDO within their organisations.

The programme is intended to be driven by CDOs for CDOs – with topics of focus chosen by the group – facilitated by Deloitte. Discussions are always held under Chatham House rules. There will be no direct attribution of any discussion outside of events. This will help foster supportive and open discussions to benefit participants.

We have categorised the CDO programme into four areas of activity:

Roundtable discussions

Gain exclusive access to themed and industry-focused discussions. Network with peers, gather insights, and learn from industry experts.

Insight papers and articles

Stay current on the latest industry trends and leadership insights. These resources focus on you, your leadership development, and your career path.

Bespoke labs and workshops

Develop your skills and expand your knowledge through unique transition labs, next-generation strategic thinking workshops, and problem-solving greenhouses.

Peer-to-peer network

Build new connections and relationships with peers across industry groups and experience levels.

If you are interested in finding out more, please get in touch with Andy Whitton and Tony King.

For current and past copies of the survey, please visit our website.

If you have any feedback or would like to get in contact with the CDO team, please contact ukcdocommunity@deloitte.co.uk. If you are based outside of the UK, we can also put you in contact with your local member firm.

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