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Data, Analytics & AI

How Data Maturity Drives a Data-Driven Culture

By Jon Collins

Unlocking Business Value from Data:
Insights from the 2025 GigaOm Data Maturity Survey

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How Data Maturity Drives a Data-Driven Culture

This report presents the current state of enterprise use of data. It explores how organizations are evolving in their data management journey, and applies lessons learned from leading organizations to address the barriers to impact success.

01 Introduction

WHILE DATA HAS LONG BEEN IMPORTANT to enterprises, in recent years it has become increasingly critical to strategic goals. Our latest survey shows that some organizations effectively use data for competitive advantage. However, many still face issues like data fragmentation across silos, poor data quality, and lack of alignment between data assets and strategic goals.

This report unpacks the key findings from a global survey of 1,000 business leaders who have a clear grasp of data-related goals and issues. It provides insights and guidance so executive decision makers can understand their organization's data stance, remove roadblocks, and maximize the value of their data.

Summary findings include:

- **Organizations are dealing with very large volumes of data:** Nearly half of organizations are storing more than a petabyte across hundreds or thousands of applications. Two-thirds of organizations use multiple data warehouses, data lakes, or lake houses.
- **Data quality and Integration are persistent challenges:** Fragmented data platforms create complexity, making integration difficult. Coupled with poor data quality, this has a negative business impact. AI adoption is increasing, making data quality more critical than ever.
- **Data maturity varies across organizations:** Organizations assessed their data maturity across five levels, from ad hoc to optimized. More mature organizations focus on innovation and growth, while less mature ones prioritize customer experience and cost reduction.
- **Mature organizations take a more strategic approach:** They prioritize AI, and executive sponsorship (e.g., a chief data officer), ensuring data aligns with business goals. By contrast, less mature organizations focus on infrastructure first.

- **Mature organizations provide key insights into data best practices:** Their approach offers a roadmap: organizations must first ensure data quality, then strengthen infrastructure, and finally maximize the value of data through AI, analytics, and business-driven data strategies.

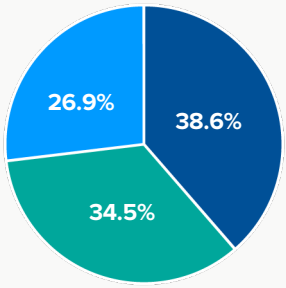
By taking proactive steps now, organizations at every level of maturity can turn data into a true competitive advantage and build a foundation for a data culture.

Survey Response Summary

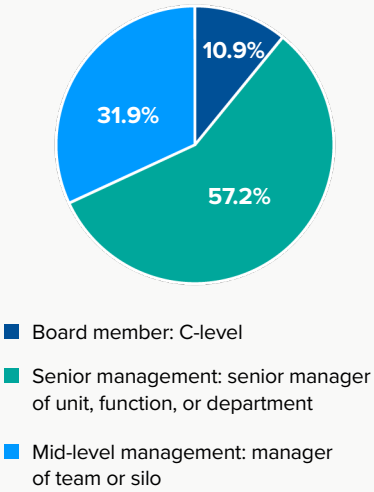
GigaOm surveys serve to test hypotheses about a given topic area. In this survey we looked to explore how enterprise organizations are evolving in their data maturity journey, and the barriers and enablers that impact success.

1,000 senior business decision-makers responded to the survey. They are directly involved in defining, buying, and using data management solutions at scale. Respondents came from a cross section of industries, from companies with 1,000 or more employees. Countries surveyed were USA, UK, Germany, Australia, and Singapore.

Approximately, how many employees does your organization have globally?



What describes your position in the organization?



02 The Data Landscape

RESPONDENT ORGANIZATIONS ARE DEALING with very large data volumes, across numerous applications. As we can see in **Figure 1**, survey results show that many organizations manage vast data volumes across numerous applications. Nearly half of these organizations have more than a petabyte of data stored across hundreds or thousands of applications, causing inevitable challenges in performance and security.

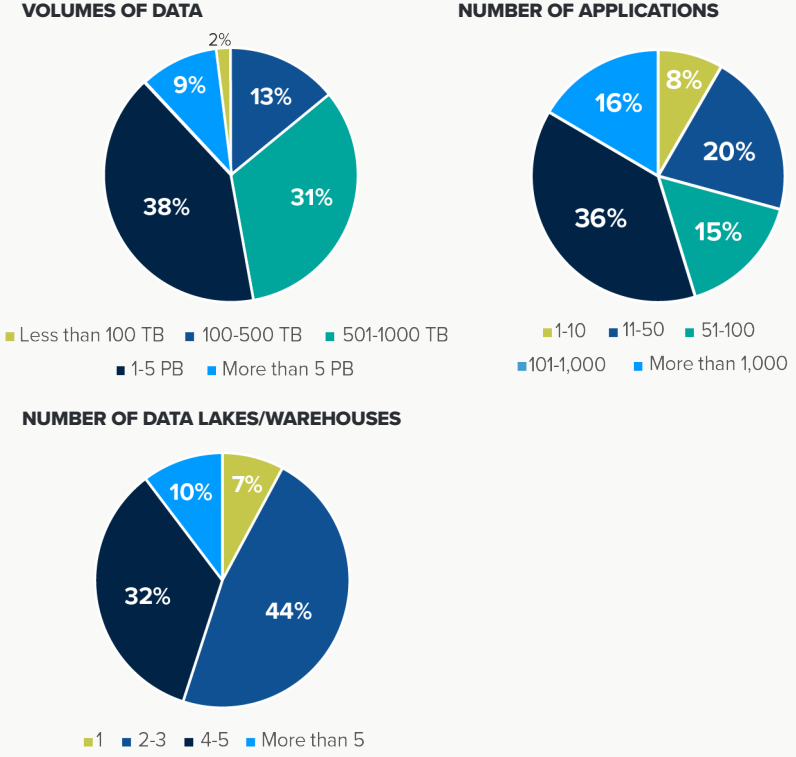


Figure 1. Organizations deal with large data volumes across many applications.

We can also see how two-thirds of organizations are dealing with two or more data warehouses, data lakes, or data lake houses. While the industry often focuses on organizations being multi-cloud, it's just as important to recognize that they are also multi-lake.

When looking at the applications where data is being used (**Figure 2**), customer-facing applications and services come out on top, followed by big data and analytics applications. Interestingly, business-facing AI applications rank third, highlighting the growing importance of AI as an organizational priority.

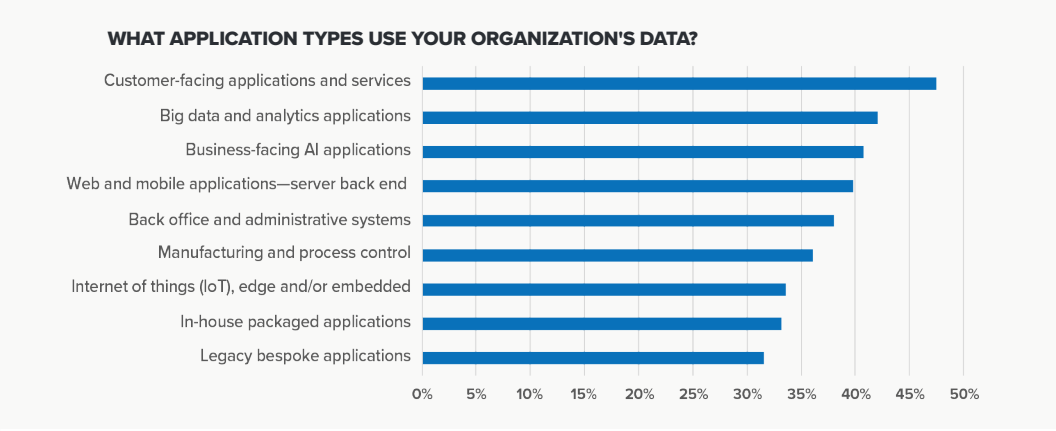


Figure 2. Customers rank first when it comes to data usage.

Organizations are working with various data types, with customer data understandably leading the way, followed closely by transactional data (**Figure 3**).

"While the industry often focuses on organizations being multicloud, it's just as important to recognize that they are also multi-lake."

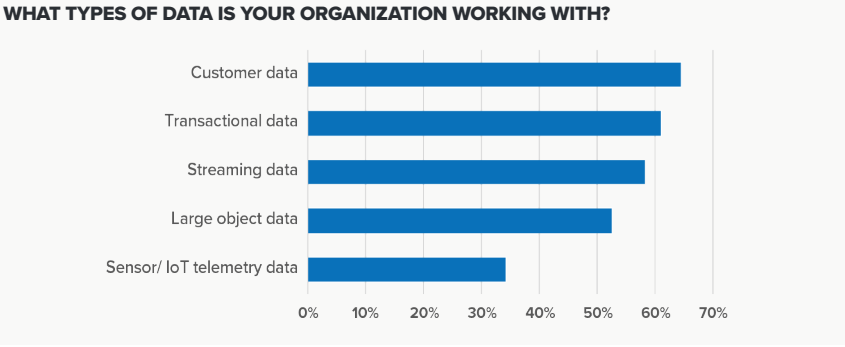


Figure 3. A wide array of data types is involved.

In terms of what's influencing the resulting data strategy, in general, organizations are prioritizing business effectiveness over efficiency. The most significant business drivers are to improve customer experience and to grow the business via increased sales; efficiency (as measured through cost reduction or time to market) comes further down the list. More general initiatives, such as digital transformation and becoming more data driven, are also less of a priority.

Figure 4. Customers and sales top the list in terms of data strategy.

What do resulting data strategies look like? **Figure 5** shows that data quality is the top priority, followed by integrating data security and governance. Interestingly, the third key element is implementing AI and machine learning, highlighting AI's growing importance to businesses in general terms. After these priorities, the focus shifts to infrastructure—integrating data and increasing cloud adoption—before moving toward optimizing data usage. This includes enhancing planning, analytics, and AI capabilities, as well as improving data literacy and aligning data more closely with business processes. The overall pattern is clear: first, ensuring data quality, then strengthening infrastructure, then maximizing the value of data.

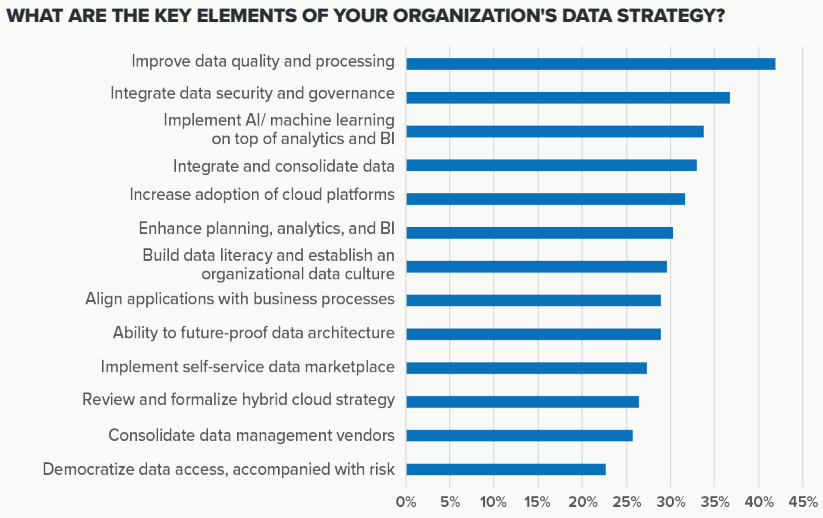


Figure 5. Improving data quality is the top priority for data strategy.

In terms of data infrastructure, organizations rely on a mix of analytics, warehousing, governance tools, and AI platforms. Only a third have deployed to a satisfactory level across the board while the rest needs improvement–which brings us to the challenges shown below.

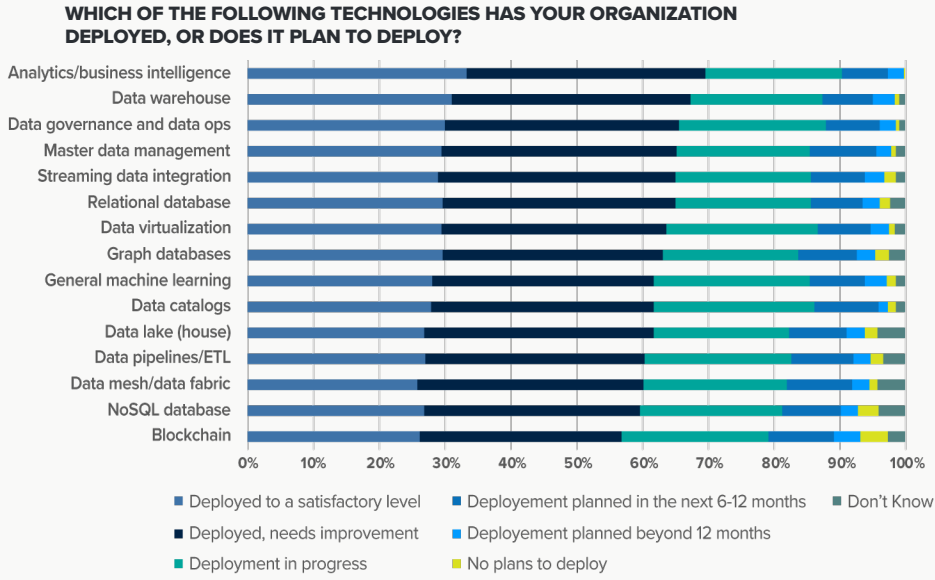


Figure 6. A broad range of technologies are deployed, but many need improvement.

"In terms of data infrastructure, organizations rely on a mix of analytics, warehousing, governance tools, and AI platforms."

03 Data Quality, Governance & Security

Foundations of Trustworthy Decision-Making

LET'S TURN NOW TO THE CHALLENGES organizations can face. At the top of the list is fragmentation—many organizations are dealing with multiple disconnected data platforms. This adds complexity to the data architecture, affecting costs and efficiency at a lower level and decision-making, productivity, and trust at a higher level.

This is followed by compliance, then issues with infrastructure. Poor usability, skills issues, and and lack of budget clarity are also lesser concerns.

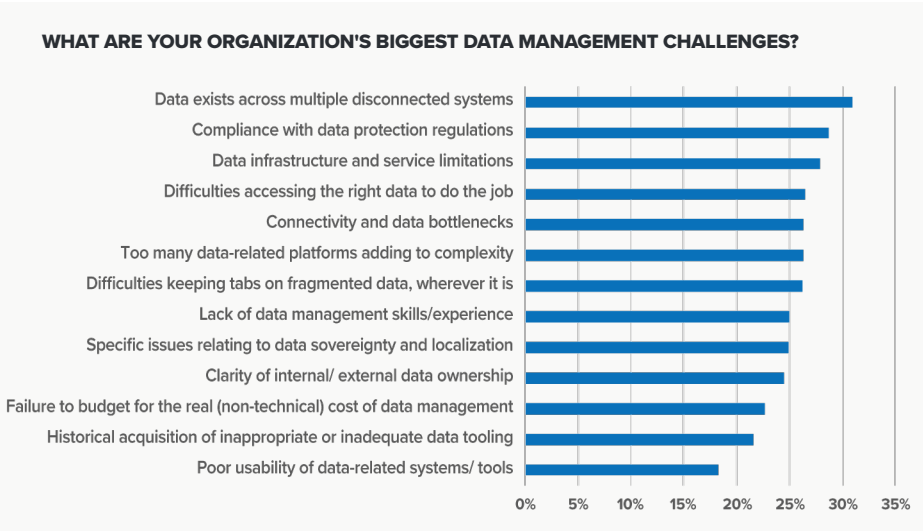


Figure 7. Disconnected data is the biggest data management challenge.

These issues manifest in the data quality issues we saw before, together with integration across applications. Quality and lack of integration go together: organizations with weak data quality struggle to integrate information across systems, leading to sub-optimal insights.

WHERE DO YOUR ORGANIZATION'S DATA MANAGEMENT CHALLENGES TEND TO MANIFEST?

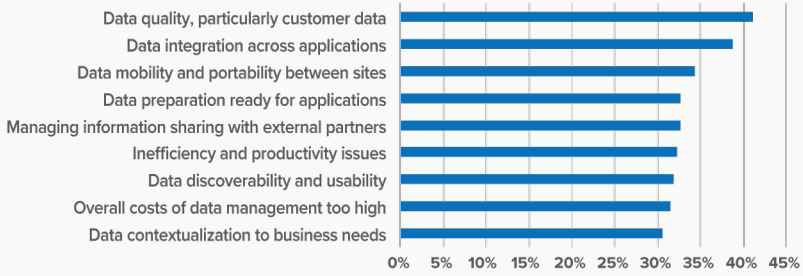


Figure 8. Data quality is the greatest data management consequence.

Data quality has always been important, but many organizations have not prioritized it–the challenge of dealing with it has outweighed the perceived benefits. Now, as AI and automation become more embedded in decision-making, poor data quality is becoming a roadblock.

How are organizations responding? Let's drill into what more advanced companies are doing.

"Now, as AI and automation become more embedded in decision-making, poor data quality is becoming a roadblock."

04 Defining the Mature Organization

Understanding the Data Management Journey

IN THIS SURVEY, WE WANTED TO explore the differences between more advanced companies and those still early in their data management journey. Respondents were asked to assess their own organizations' maturity in data management, ranking themselves on a scale from ad hoc to optimized, as follows:

- **Ad hoc:** No formal practices; processes are reactive.
- **Developing:** Some structured practices in place, but not applied across the organization.
- **Defined:** Standardized processes are established and actively followed
- **Managed:** Practices are optimized and monitored for performance and improvement.
- **Optimized:** Data management is a strategic asset, with continuous improvement and innovation embedded.

Based on these responses, our survey shows a clear spectrum of data maturity across the organizations surveyed. As we can see in **Figure 9**, just under half of respondents see their organizations as operating at the managed or optimized levels of maturity.

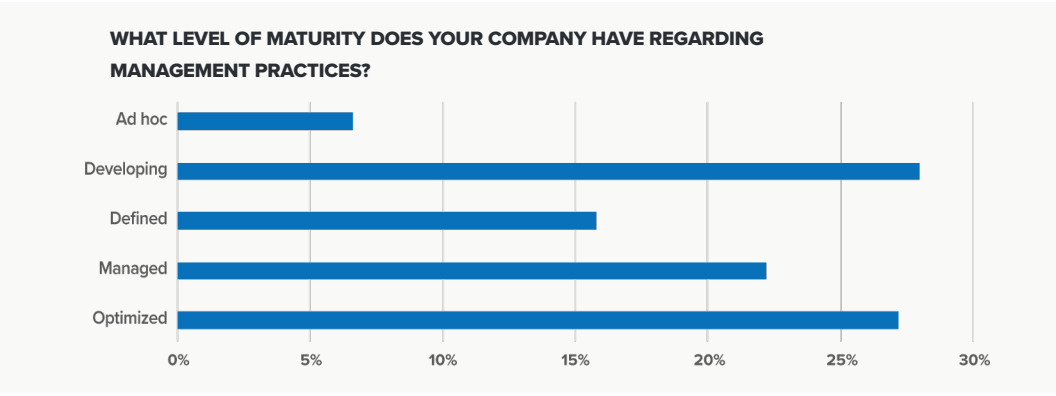


Figure 9. A significant portion have less mature data management practices.

Differences exist according to organizational context. For example, smaller organizations report themselves as less mature; we can also see differences in maturity across industries, with public sectors and healthcare ranking lowest (**Figures 10-11**).

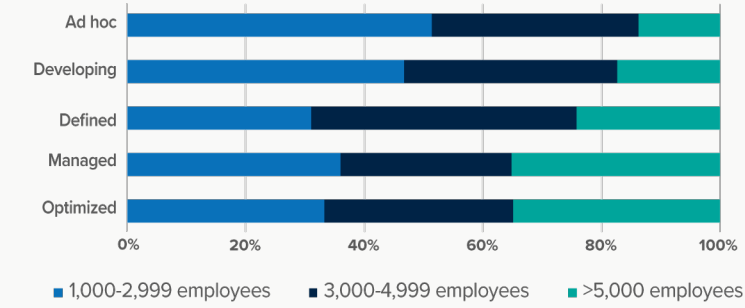


Figure 10. Larger organizations are more mature than smaller organizations.

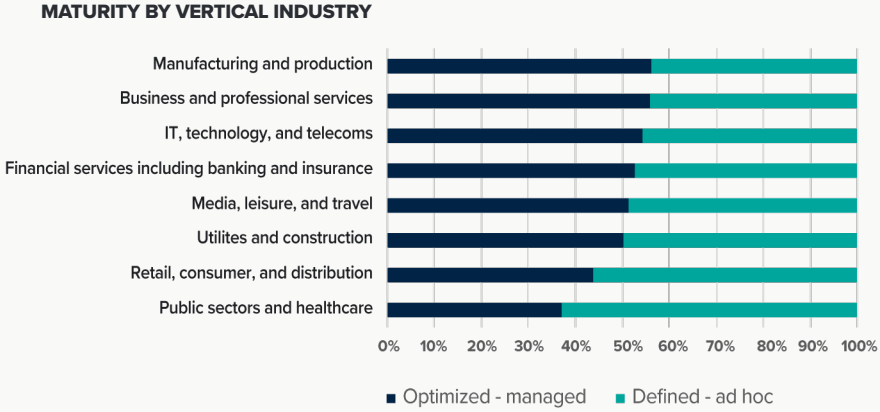


Figure 11. There are significant differences in reported maturity by vertical.

While the maturity levels are self-selecting, they are also reflected in actions undertaken by organizations. For example, in **Figure 12**, we can see how organizations grade their efforts in terms of strategy setting, actions, and outcomes. Respondents in the optimized group tend to feel more strongly about these areas.

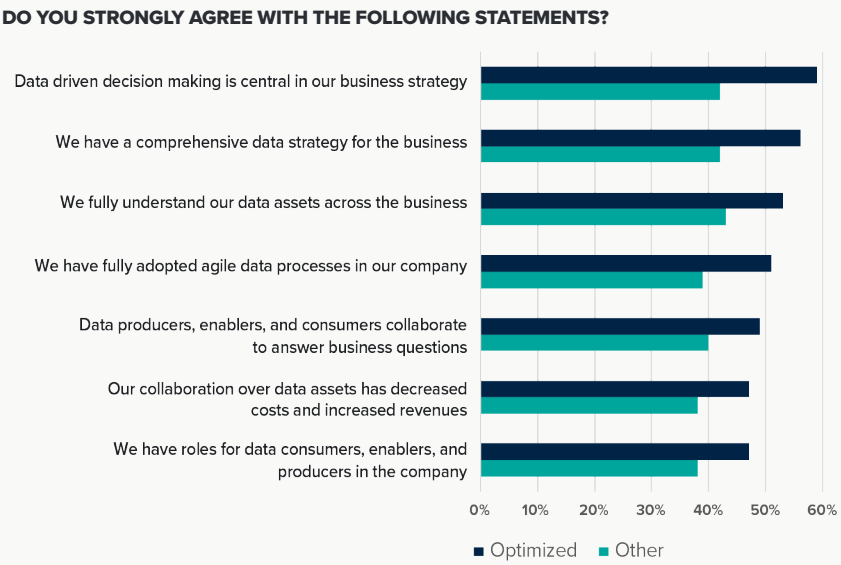


Figure 12. Optimized organizations feel more competent with regard to data.

What are more mature organizations targeting from a business perspective? As **Figure 13** shows, optimized organizations are focused on innovation and growth, whereas those in the managed or below group prioritize customer experience and cost reduction. In summary, more mature organizations are looking to build and develop, whereas less mature organizations look to improve what they have.

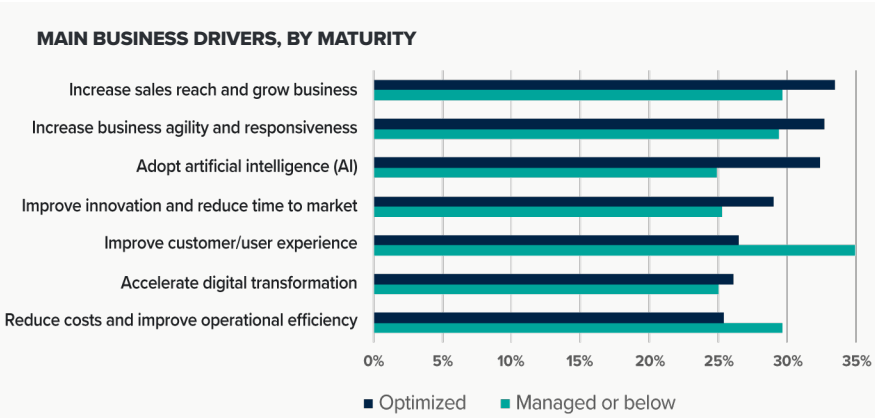


Figure 13. Optimized organizations are focused on innovation and growth.

For more mature organizations, the challenges faced are particularly revealing. Looking specifically at the optimized group, data quality remains a major concern—an even bigger issue for them than for less mature groups (**Figure 14**). Data integration is also a priority across the board but holds particular importance for these advanced organizations. Beyond that, the optimized group is more likely to see costs as too high and is especially focused on contextualizing data to business needs—ensuring that data directly supports organizational goals.

In contrast, less mature organizations tend to struggle more with infrastructure-related challenges, such as data mobility, portability, discoverability, and preparation. Their focus is on making data more accessible and usable, whereas the more advanced organizations concentrate on improving data quality and its strategic value, with all groups sharing concerns around quality and integration.

"In contrast, less mature organizations tend to struggle more with infrastructure-related challenges, such as data mobility, portability, discoverability, and preparation."

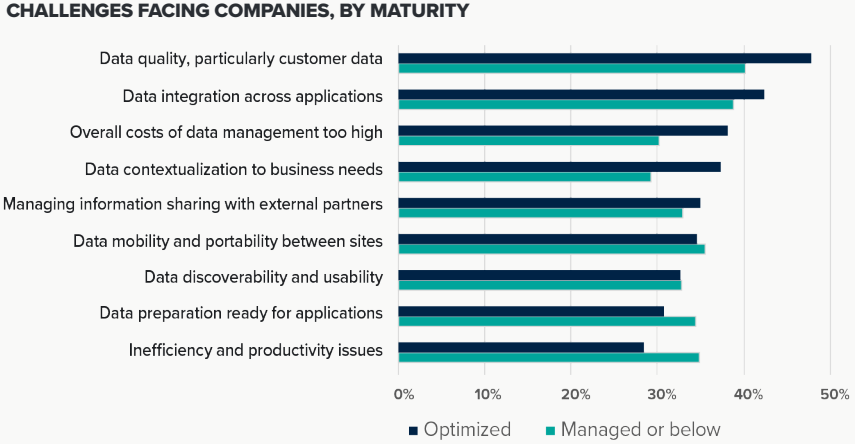


Figure 14. Data quality remains an issue for most mature organizations.

05 Breaking Down Silos

Data Integration, Automation, and Democratization

DRILLING INTO THE CHALLENGES organizations face, we can see how much work is in progress–roughly only a quarter of initiatives are complete, and a further quarter are yet to start (see **Figure 15).** Data security is a significant element of initiatives, together with having a more strategic view of data, either through a strategy, or with actual dashboards. Data management and architecture come next.

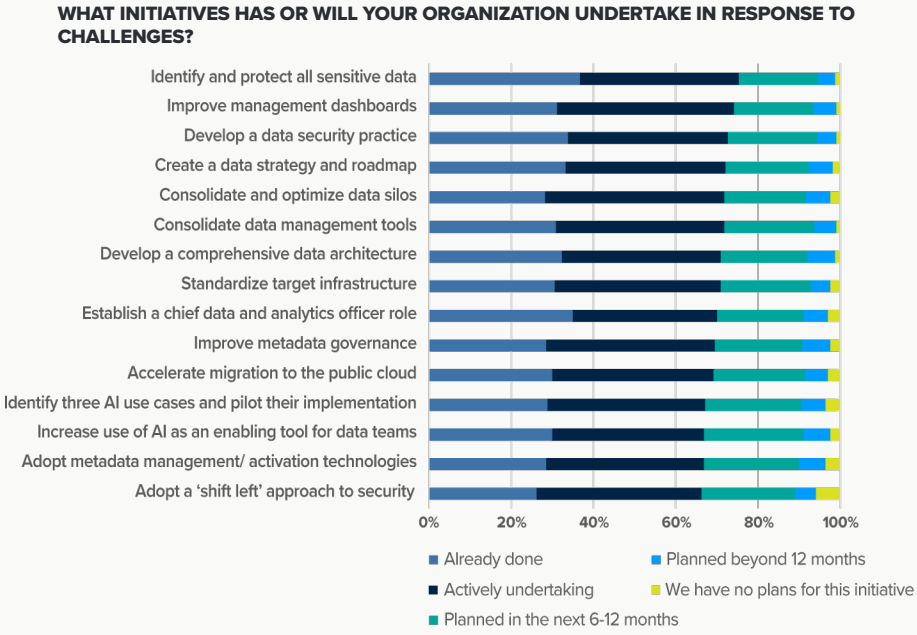


Figure 15. Multiple data management initiatives are underway.

So how does this picture look for more mature organizations? (**Figure 16**) For a start, considerably more initiatives (over a third, approximately) are complete, and only 20% are still to start. Top of the list is still data protection, but next is to establish a chief data and analytics officer–emphasizing the importance of executive sponsorship to enable data to be aligned with strategic business goals. And once again, we can see the strategic importance of AI as an enabling tool for data teams and therefore, the broader business.

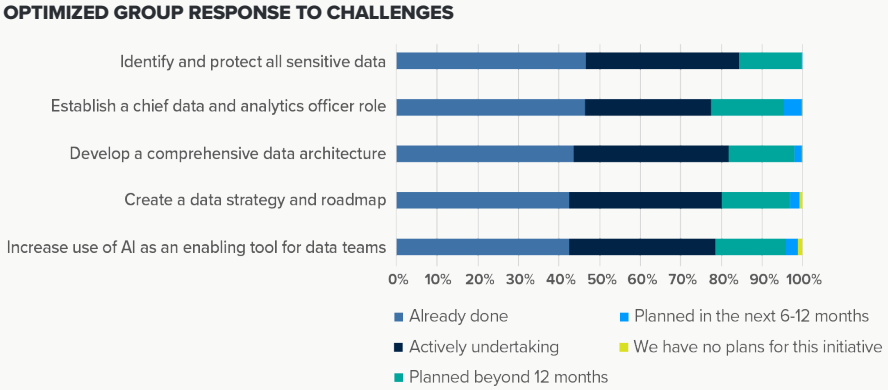


Figure 16. The optimized group emphasizes strategic architecture and planning.

Such considerations build upon data integration to enable business users across the board to access the data they need. Mature organizations see the democratization of data as an enabling tool, via a solid and integrated architecture, driven from the top.

06 The Path to AI-Driven Leadership

Next Steps for Business Leaders

IF WE MOVE UP A LEVEL HIGHER, we can see how more mature organizations are setting data strategy. While all groups prioritize improving data quality and processing, the optimized group tends to view every aspect of data strategy as more important than do the managed or lower-maturity groups (**Figure 17**). This suggests that the former group takes data strategy more seriously and aims to cover a broader set of priorities.

A key distinction is the emphasis on AI and machine learning. While AI is a lower priority for most organizations, it stands out as a top-level priority for the optimized group, indicating that advanced organizations see AI as a critical component of their data strategy. The prioritization of data self-service platforms is a further indicator of the drive toward data democratization.

Meanwhile, less mature organizations place greater importance on data integration and consolidation, ranking these as high priorities. This suggests that at lower maturity levels, the focus is on establishing the right platform and infrastructure. Once this foundation is in place, organizations can shift their focus toward higher-value activities, such as improving data quality and making data more outcome driven, following the example of the optimized group.

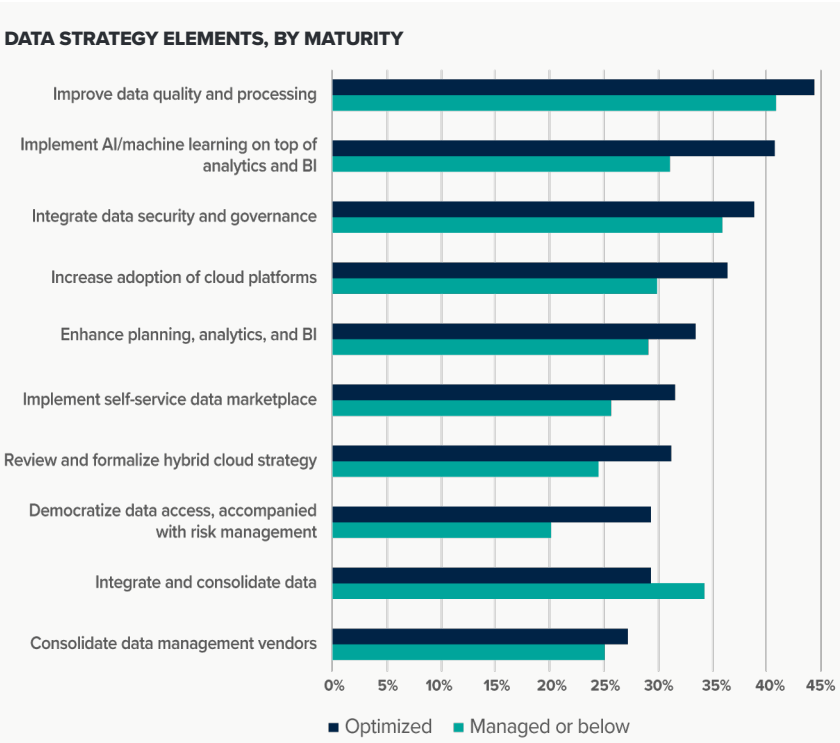


Figure 17. Mature organizations are prioritizing AI, while the less mature focus on integration.

Mature organizations aren't just focused on data quality issues—instead, they're investing in platforms, AI, and machine learning. It's not just about having data—it's about making it usable, accessible, and actionable. We can also see how the optimized group tends to prefer a multi-supplier approach rather than one based on a single data management platform (**Figure 18**). This makes the ability to integrate data silos even more important.

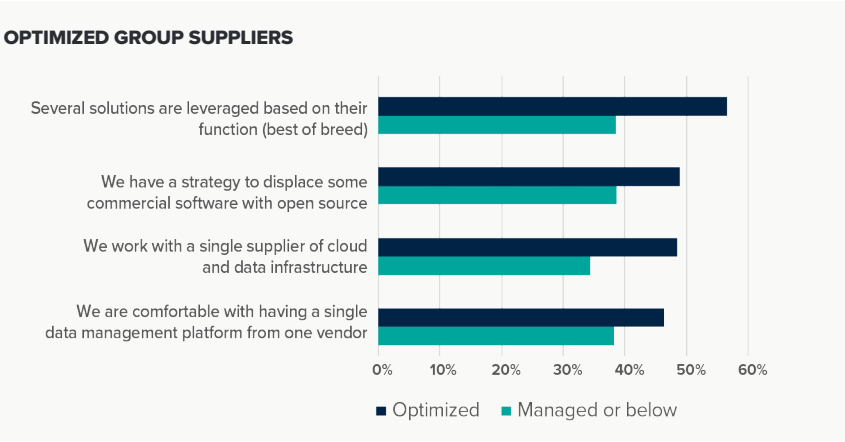


Figure 18. The optimized group tends to prefer a multi-supplier approach.

07 Conclusion

Strategic Data Culture is Key to Long-Term Success

GIVEN THAT THE RESPONDENT BASE FOR THIS SURVEY is business users, we can view the survey's findings as business expectations with respect to data strategy, management, and infrastructure. Key findings are:

- **Business users want to be able to trust the data they have.** Poor quality leads to bad decisions, but more importantly, it impacts productivity and effectiveness through time wasted performing manual checks.
- **Respondents recognize the role of data in driving AI.** There can't be an AI-driven transformation if the data is inadequate or fragmented.
- **There is a need for more democratized access to data.** That is, making data and resulting insights available to a broader set of people, rather than being locked away in tools or systems.

The findings highlight a data maturity gap across organizations, with more advanced companies focusing on the business value of data at a strategic level, while less mature organizations are still grappling with integration, infrastructure, and data accessibility. There is clear evidence that data maturity drives success, with data quality as a foundation, regardless of maturity level.

The future will be defined by organizations that move beyond simply managing data to becoming truly data driven and fostering a data-centric culture. Given the scale at which organizations are operating with data, this is no easy ask. It should be no surprise that more advanced organizations are looking to address data challenges across the board while always keeping their eyes on the prize of business outcomes: better data infrastructure is not an end in itself.

To summarize, successful organizations are looking to deliver across a range of strategies to improve their data quality and accessibility. However, they recognize that these are a means, not an end. The goal is to embrace data as a strategic asset, fostering a culture where data-driven thinking is second nature.

The keys to a strong data culture include literacy, access, empowerment, and cross-functional collaboration across lines of business and with IT. And as AI continues to evolve, data quality, accessibility, and strategic alignment will differentiate the leaders from the rest.

08 About

SAP Business Data Cloud brings together the world's most comprehensive and mission-critical data with the leading data platform. Access curated data products across your most important business processes, keeping its business context and semantics intact and fully governed. SAP Business Data Cloud also delivers transformational insights for advanced analytics and planning with prebuilt intelligent applications across all lines of business. It unifies all your SAP and third-party data with fully managed capabilities for business data fabric, BW modernization, planning, data engineering and AI/ML.

About Jon Collins

Jon Collins has over 35 years of experience in IT. He has worked as an industry analyst for a number of years and has advised some of the world's largest technology companies. He has acted as an agile software consultant to a variety of enterprise organizations, advised government departments on IT security and network management, led the development of a mobile healthcare app, and successfully managed a rapidly expanding enterprise IT environment.

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GigaOm works directly with enterprises both inside and outside of the IT organization to apply proven research and methodologies designed to avoid pitfalls and roadblocks while balancing risk and innovation. Research methodologies include but are not limited to adoption and benchmarking surveys, use cases, interviews, ROI/TCO, market landscapes, strategic trends, and technical benchmarks. Our analysts possess 20+ years of experience advising a spectrum of clients from early adopters to mainstream enterprises.

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