



A step-by-step guide to becoming a data-first organization

How to overcome persistent data management issues and put all your digital assets to use

Business and technology leaders agree that getting the most out of all the data in their realms would lead to stronger financials, smoother operations, greater innovation, and happier customers. But realizing that potential and getting there are two different things.

Most executives recognize the value of becoming data-first organizations, where every decision is rooted in data and analysis gleaned from internal and external digital assets. Indeed, a recent Salesforce survey found eight in ten leaders today consider data critical for decision-making.¹ At the same time, 41% of business leaders acknowledged they don't understand all their data because it is complex and often inaccessible. And 30% said they are overwhelmed by the volume of data coming at them, which is expected to more than double by 2026.²

So, what's a technology leader to do?

Increasingly, the business mandate is to find a path to becoming a true, data-first organization. In fact, a NewVantage Partners survey of chief data officers (CDOs) and chief data and analytics officers (CDAOs) found that in 48.1% of organizations, the primary mandate of leaders is to develop corporate data strategies.³



Five steps to a new, data-first enterprise

As the NewVantage report notes, enterprise leaders know that “data, and the ability to make sense of it, has been one of the greatest drivers of innovation in both business and society in recent decades, and a primary driver of economic success in the 21st century.”

However, data-first transformation often doesn't come easy. Most leaders must learn to crawl before they can walk and, ultimately, see the possible returns from adopting a data-first operating model. According to analysts, those returns include being 20x more likely to beat competitors to market when compared to laggards, 11.5x more likely to eclipse revenue targets by more than 10%, and 4.9% more resilient against losing data in a ransomware attack.⁴

To achieve such payoffs, tech leaders should build and implement an aggressive yet paced multiyear strategic program using the following five steps to guide the way.

^{1, 2} [“73% of Business Leaders Believe Data Reduces Uncertainty and Drives Better Decisions — So Why Aren't They Using It?”](#) Salesforce, Feb. 22, 2023

³ [“Data and Analytics Leadership Annual Executive Survey 2023,”](#) NewVantage Partners, a Wavestone Company, January 2023

⁴ [“Why Being a Data-First Leader Matters,”](#) Enterprise Strategy Group (ESG) and Hewlett Packard Enterprise, 2022

1. Set clear goals aligned to the business

It's not enough to simply say you want to get more actionable insights out of your data to accelerate business, improve operations, and pave the way for differentiating yourself in the market. You need specifics to reach these goals.

Sean Foley, global cloud transformation strategist at Hewlett Packard Enterprise, recommends asking a host of questions to clarify why you are doing this and what outcomes you want to achieve. The questions include:

- Do you want data-first modernization to extend to service quality?
- Do you expect it to help improve your pricing structures?
- Do you want to make data more accessible to people inside and outside your organization, or do you prefer a zero trust model where access is highly limited?
- Do you want to improve data quality as part of this transformation?
- Do you want to use data as a lever to improve corporate sustainability performance?
- “Don't boil the ocean when coming up with goals,” advises Foley. “Rather, focus on your highest priorities in the early going. You can always add others in subsequent phases.”



2. Drive cultural change

Having a data-first culture is vital for any technology overhaul since success depends on support and involvement from nearly every facet of the business. Yet, it's one of the most difficult steps to accomplish. In fact, nearly 80% of data leaders surveyed cited cultural issues — such as organizational receptivity and resistance to change, organizational alignment, and lack of necessary skills — as some of the greatest obstacles to achieving data-first business value.⁵

Foley suggests a few strategies to overcome this problem:

- Work diligently to find a C-suite sponsor who is not only willing to back reasonable investments but also communicate to the entire workforce how being data-first is a top priority for the entire business.
- Recruit a coalition of evangelists from across the business, at multiple levels of the organization, to help communicate and support the need for a data-first transformation.
- Adopt agile and lean project management principles that focus on speed, flexibility, collaboration, constant learning, and most of all, team respect. Foley says it's critical to develop a culture of hypothesis testing and communicate that in any data-first efforts. It's OK to experiment, take risks, and sometimes, fail to achieve success. You might want to do this testing in pilot projects and then roll out the approach more broadly once things progress smoothly. Doing so will help develop an organization that can learn.
- Understand the type and volume of new skills needed. Hire talent with the data, edge, and cloud skills required for meaningful transformation. Upskill or reskill internal teams and promote a cultural willingness to partner with qualified consultants to deliver needed competencies while you upskill your team.

“It's critical to be constantly innovating and developing an organization-wide culture of continuous learning,” says Foley. “Even if your people are on the right track, they will get run over by the pace of change if they sit still for too long. Everyone will always benefit from evolving their skills.”

⁵ [“Data and Analytics Leadership Annual Executive Survey 2023,”](#) NewVantage Partners, a Wavestone Company, January 2023

3. Learn to trust your data

To use data properly, you must know where it is, who is using it, where it's being used, and for what reasons — from the data center to the edge and the cloud. But even further, leaders must trust the quality of the data. What is its internal, authoritative source? How well is it culled and refined? Are the AI models and downstream systems refreshed often enough to avoid bias?

Unfortunately, many CIOs, CDOs, and CDAOs lack the tools to have an effective data catalog, as it's often sitting in repositories or silos. Complicating this need is the issue of data gravity. Large volumes of data tend to attract services, applications, and other data sets to it, making it increasingly difficult to transform over time.

With all these complications, it's not surprising that 74% of IT leaders believe their data management capabilities can't keep pace with business requirements.⁶ Foley says that must change. To start, conduct an audit to fully understand your data landscape. One goal is streamlining or replacing the 23 different tools the average organization uses to track data with modern alternatives that provide more centralized views.⁷ He says, only then can organizations seriously approach the ability to gain actionable insights from their digital assets.

4. Safeguard the data

Cybersecurity is often an afterthought for business and technology leaders, but it should be one of the first considerations in data-first modernization. Organizations don't just face a range of malicious attacks; they must also deal with regulatory responsibilities and emerging issues such as ethical AI development.

As such, securing your data is no longer something only chief information security officers care about. It's now a business-critical issue commanding the attention of CEOs and board members alike. Once you have a clear inventory of your data and have classified it accordingly, you'll need to understand your regulatory responsibilities in managing it. This will help inform your data security strategy. Having a robust, informed data security approach is an absolute must for any data-first modernization program, says Foley.

5. Determine how people will consume the data

In addition to the security implications, deciphering who should access what data — and how they will consume it — is another key consideration.

Foley says the user experience is critical to ensuring users have effective access to the most relevant data they need. In addition to enhancing that experience, he says, don't lose sight of operational constraints, which could impact infrastructure planning and investment. Specifically:

- Map applications to business services and catalog workload dependencies, latency, and regulatory compliance requirements.
- Understand both current and future data flows and volumes. In particular, pay attention to data growth at the edge and consider how that connects to the application map you started with.
- Make sure you have a clear, role-based access model for your data that balances effective data access with compliance requirements.
- Accelerate data delivery to your users by applying automation at every stage of your data pipeline.
- Leverage artificial intelligence (AI) and machine learning to develop insights and recommendations that accelerate business outcomes. This can help employees close sales, keep systems running, and safeguard critical information from attack.

⁶, ⁷ [“Why Being a Data-First Leader Matters,”](#) ESG and HPE, 2022

Putting it all into action

Once you've gone through these steps, you should be on a path that enables you to see, access, analyze, and share data-driven insights in your organization — at scale.

What does that look like?

In a data-first organization, a whole world of possibilities suddenly appears. For example, imagine a connected hospital with a strong data management team, culture, and infrastructure. Large medical facilities typically have plenty of raw patient data — electronic health records, medical device data and images, and financial data tracking insurance and billing. While it's historically been difficult for healthcare organizations to collect, aggregate, and analyze all that data, let alone gain actionable insights, a data-first transformation can be the key to making that possible.

When successfully transformed, every ounce of clean, relevant data from reports and images can be reviewed, enriched, and analyzed instead of languishing in a forgotten file. And while using AI, systems can improve the diagnosis of health issues and propose smarter remedies that might save lives. Hospital staffing and bed requirements could be adjusted on the fly by tracking admissions trends over time.

“In a hospital, the goal is always to improve patient outcomes,” says Foley. “If you can take all that instrumented data and align it with the expertise of physicians and researchers, you maximize your odds of helping people in ways they deserve. And that's just one vision for data-first.”



Learn more at

[HPE.com/data](https://hpe.com/data)

Visit [HPE GreenLake](#)



Chat now (sales)


**Hewlett Packard
Enterprise**

© Copyright 2023 Hewlett Packard Enterprise Development LP. The information contained herein is subject to change without notice. The only warranties for Hewlett Packard Enterprise products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. Hewlett Packard Enterprise shall not be liable for technical or editorial errors or omissions contained herein.

a50008523ENW