

Becoming a data-driven company with Azure analytics



INTRODUCTION

Organizations today are challenged to keep pace in a data-driven world. Extracting business value from the vast quantities of data available today is the new competitive differentiator. Those that lag in embracing a business-wide, data-powered approach will lose ground to competitors that are doing it faster, better, and more holistically. Recent surveys from both IBM and McKinsey clearly demonstrate the gap between those with a clear data strategy and those who are fumbling.

In this eBook, discover what makes for a winning approach based on best practices learned across thousands of projects centered around three key tenets: data strategy, data platform, and operating model.

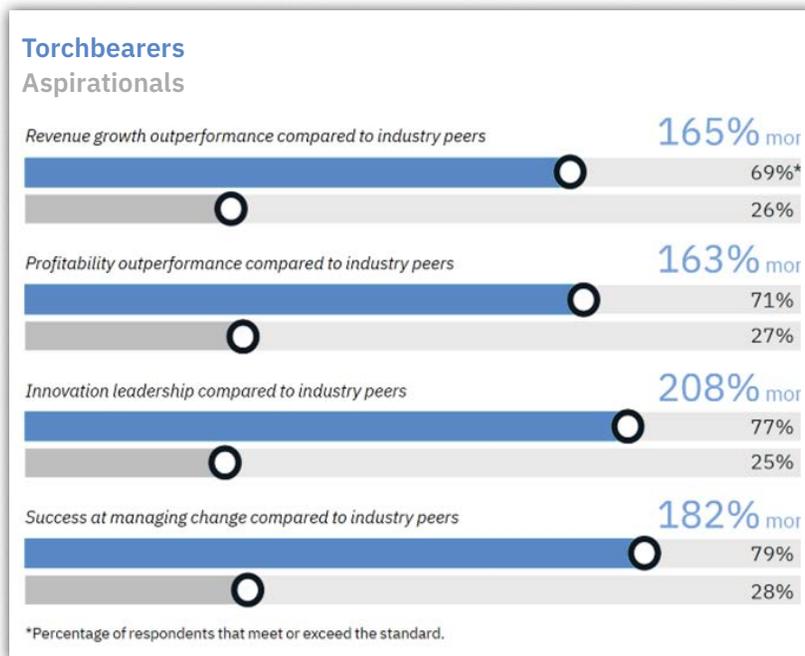


WHY ARE COMPANIES ASPIRING TO BECOME DATA-DRIVEN?

An IBM C-suite study of more than 13,000 executives illuminated a new category of data-driven companies—Torchbearers.¹ Torchbearers are leading the pack in creating a “culture of data believers,” where 80 percent of their executives rely heavily on data to improve the quality and speed of the decisions they make.

The study points to some remarkable findings, with Torchbearers generating significantly higher revenue growth and profitability than their peers, leading their industries in innovation, and being better prepared to manage change. In essence, organizations that have fully integrated data into their business strategies, operations, and cultures have established a new path to value.

Similarly, a McKinsey study on analytics found that only eight percent of respondents were considered elite Breakaways.² These Breakaway companies use data to deliver value at every customer touchpoint and interaction while establishing trust.



Benefits of a data-driven business:

- Support more informed, evidence-based decision-making across the organization
- Drive revenue and optimize operations by discovering trends and insights that would be otherwise unknown
- Reduce risk and identify inefficiencies by gaining greater visibility into the health of the organization
- Optimize pricing, purchasing, costs, customer engagement, and more through predictive analysis
- Enable better responsiveness to changing customer or industry needs
- Drive increased customer sales, loyalty, and retention by delivering personalized, end-to-end customer experiences
- Take more informed action at every touchpoint by democratizing data to put analytics and insights in the hands of more people across the business

One of the factors that distinguishes Breakaways is that they allocate 2.5 times more budget to analytics than the other companies in the survey. This investment and command of data is enabling organizations to enter new markets with data-driven confidence.

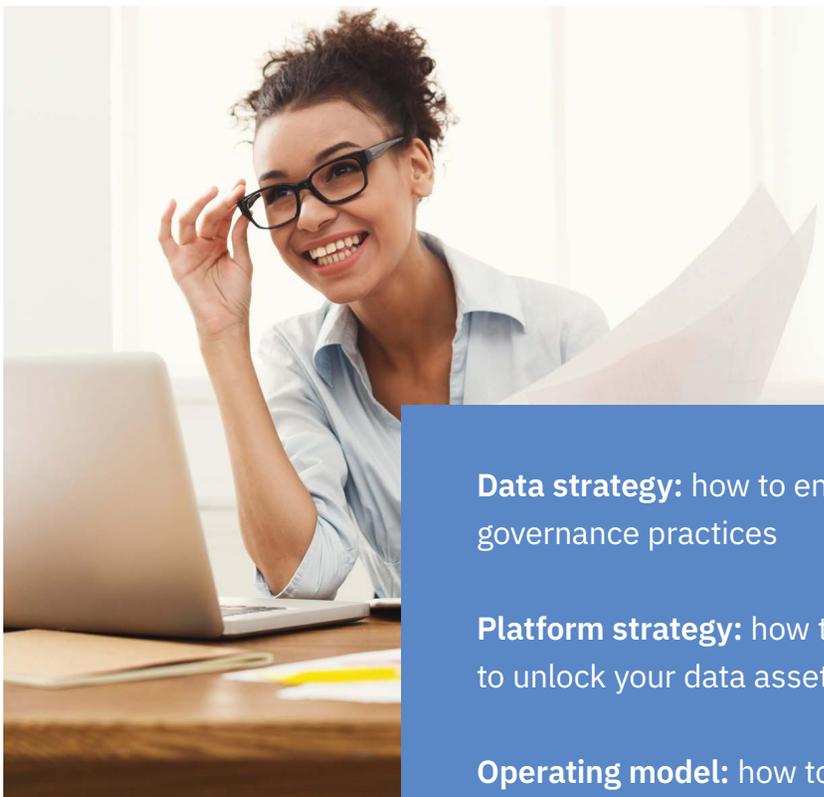
As many realize that the ability to exploit data is a clear competitive advantage, an increasing number are also migrating applications and data to the cloud. It is precisely at this intersection of data, analytics, and the cloud that organizations face a fateful decision in orchestrating their analytics strategies.



INSTANTIATING AN AZURE ANALYTICS STRATEGY

The path to becoming a data-driven company begins with developing an initial strategy. To instantiate your analytics strategy on Azure, there are three key elements that you need to address—your data strategy, your platform strategy, and your operating model.

Meeting each of these objectives requires both serious effort and the right approach.



Data strategy: how to enhance and enrich your existing data management framework and governance practices

Platform strategy: how to modernize and industrialize your data architecture leveraging cloud to unlock your data assets

Operating model: how to establish communication and funding between your business units and IT and enable your organization to operate the future-state data and analytics strategy

IBM's Rapid Approach to Data & Analytics Strategy

IBM's proven methodology is based on a thorough analysis of your existing estate to identify gaps compared to best practices. Our gap analysis is followed by an architecture, organizational structure, and platform enablement. The end result is a comprehensive strategy for enabling your agile industrialization.

A key aspect of our analysis reviews your analytics strategy relative to your enterprise resource planning (ERP) system. As the undisputed leader in this area, SAP is a major factor in creating a data strategy. Tapping into the wellspring of SAP is also fundamental to creating a "data fabric"—a concept for integrating, consuming, sharing, and managing data at scale.



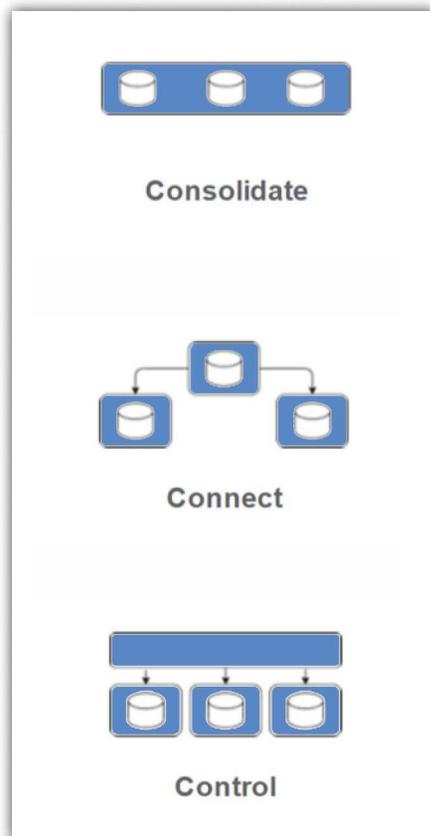
LEVERAGING SAP AND AZURE SYNAPSE IN A DATA FABRIC

Forrester defines a data fabric as an architecture for “orchestrating disparate data sources intelligently and securely in a self-service manner...to deliver a unified, trusted, and comprehensive view of customer and business data across the enterprise.”³

The upshot is that, if implemented properly, the data fabric concept can mitigate data held in silos prone to low reliability and scalability, reliance on legacy systems and needless cost inefficiencies. But how is it “done properly”?

In our experience, three distinct patterns have emerged recently as industry best practices with regard to developing a data platform landscape:

- **Consolidating** multiple platforms into a single infrastructure
- **Connecting** multiple platforms to one another
- **Controlling** multiple platforms through unified governance





	Data Warehouse	Data Lake	Data Fabric
Nature	Homogenous, Product	Cohesive, Homogenous, Platform	Loosely coupled, Heterogeneous, Open architectural construct
Variety	Low, Structured, Internal	High, Structured & unstructured, Internal	Very high, Structured & unstructured, Internal & external
Velocity	Absent	Present, Supports streaming	Present, Streaming, Real-time analytics, Edge
Veracity	High, East to trust	Can be low, Governance needed	Can be low, Governance needed
Architecture	Centralized	Centralized	Distributed

Over time, we've seen that as data platforms continue to evolve and mature, they have shifted to a distributed, loosely coupled ecosystem of platforms and away from the single, consolidated platform. Many of our clients are now designing for an advanced control-based data fabric as opposed to what is achievable with only consolidated or connected patterns, including the following:

- Individual data platforms can evolve at their own pace, technology, and maturity curve
- They will publish their own assets in the central catalogue
- The enterprise catalogue will be governed by predetermined data governance processes
- A common data model can be central to ensure consistent definition of shared entities
- Governance workflows can bring together all stakeholders across data producers and data consumers
- Data lineage and metadata-driven data discovery makes assets more discoverable and trustable

As a result, a modern data fabric has now become a strategic imperative for data-driven companies, like the Torchbearers from IBM and Breakaways from McKinsey. And because SAP is so pivotal, many start with an Azure strategy oriented to their SAP data. However, marrying SAP HANA to Azure depends on several factors, such as real-time reporting, data volumes, predictive analytics, and machine learning. At each juncture, there is a potential decision about whether to hold data in SAP HANA or move it to Azure.

For example, month-end financial reports need to run at near real time to adjust before close. In this case, the volume being churned is in gigabytes, not terabytes, and latency is critical, making SAP HANA the optimal choice for this scenario.

In a different scenario—say analyzing sales trends over the last five years—the sheer volume of data may warrant the Azure platform. Comparing apples-to-apples, the cost per terabyte on Azure is a fraction of the expense of SAP HANA. And this doesn't even consider the ability to synthesize data from other sources in a single repository or to adapt with seasonal demand.

So how does one make a decision given that, in many cases, Azure is not only more affordable but has greater dynamic storage and more tooling than SAP HANA?





Essentially, SAP HANA is best suited for real-time reporting , while Azure is ideal for massive data volumes where Microsoft intrinsic data mining, data science, and artificial intelligence (AI) capabilities are beyond the scope of HANA. Ultimately, organizations should define the performance service level agreements (SLAs) and value associated with each data set to decide on the appropriate storage or data platform.

	AZURE	HANA
Real-time reporting	Low	High
Data volume	High	Low
Machine learning	High	Low
Advanced analytics	High	Low

There must be a balance between cost to store, latency, structure, and volume. While not all data is high-value or time-critical, every strategy should aim to maximize the return on investment (ROI) of analytics considering the value to the business versus the cost to operate.

DRIVING ROI ON AZURE WITH OPERATING MODEL BEST PRACTICES



Adopting an Analytics Center of Excellence (CoE) can help you extract the maximum value from your data while ensuring organization-wide adoption. This strategic concept aims to streamline all your analytics efforts—from who will direct the analytics strategy, to defining where across your business processes it will be applied.

Decision factors that should be considered when implementing an Analytics CoE:

- **Who will the CoE will report to?** Each potential leader, such as the Chief Information Officer (CIO), Chief Executive Officer (CEO), or line-of-business (LOB) leader, will undoubtedly have a different objective. Pick a leader who is most unbiased.
- **How will work be prioritized between the lines of business?** To prevent conflicts, establish a strong steering committee and leadership to ensure its success.
- **How will funding decisions be made between corporate and individual business unit stakeholders?** Remember that the McKinsey study highlighted the disproportionate investment made by Breakaways.

Customer Story:

Skyrocketing margins with data & analytics



Challenge: Facing increased competition, a leading food and beverage distributor sought to become data-powered to support development of new business models and deliver more personalized products.



Solution: IBM helped to create the Analytics Service Line (ASL), an internal data science group that could be leveraged worldwide to transform the company's raw data into insights that improved decision-making and personalized the end customer experience with superior data and analytics.



Result: The company is leading the consumer sector with one of the highest margins in the packaged food industry. The ASL has become a best-in-class analytics group, completing ~300 projects across 40 markets and 80+ use cases. It has also improved end customer satisfaction leveraging advanced data visualizations in Microsoft Azure and Microsoft PowerBI.

- **Which roles will be owned internally and which should be outsourced to partners?** Often the answer lies somewhere in the middle, where the partner assumes a critical role until the client is ready to take over.

Since implementing an Analytics CoE internally in 2006, IBM has realized over \$1 billion in qualified benefits. By applying the learnings from its own investment, IBM is helping other organizations accelerate their own analytics journeys. To do that, IBM created several accelerators to drive successful outcomes, including:

- **A garage methodology** for accelerating how ideas and prototypes move to scalable deployments, ensuring that ROI is achieved before heavy investment
- **A deployment architecture** that ensures containerization, DevOps, CI/CD (continuous integration, delivery, and deployment), and scale-out considerations are factored into the first line of code so that no time is lost on refactoring between proof-of-concept (POC) and a production scale-out

WHY IBM?

IBM is Microsoft's fastest growing global systems integrator and a recognized leader by both the IDC and ISG analyst firms for our Microsoft consulting expertise. The IBM Global Business Services (GBS) SAP team includes over 37,000 SAP consultants with extensive experience delivering highly complex SAP implementations. With 34 years of industry experience, proven SAP on Azure expertise, and a deep history as the global system integrator with the largest SAP customer base, IBM doesn't just provide products—we are a trusted advisor.

Our GBS team is uniquely qualified to guide you through your Azure Data, Analytics and SAP on Azure journey for your financial success. We'll help you build a business case aligned to your core strategy and goals associated with SAP, data and the cloud, guiding you to make the right enterprise-wide decisions and the right approach for your company.

WHAT IS THE NEXT STEP?

Talk to an IBM Global Business Services consultant:

Leslie Belcher

IBM National Leader Azure Analytics & SAP on Azure

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Register for our webinar or watch on demand later:

February 11, 2021 at 9 AM PST ([Register here](#))

You will learn more about modern data platform strategies. Specifically, we will demonstrate how SAP data and analytics, Synapse, and the broader Azure analytics ecosystem can play a role in a viable data platform strategy. We will also discuss best practices from a data and analytics operational model perspective for optimizing your return on investment.



¹ *Build Your Trust Advantage Leadership in the era of data and AI everywhere.* IBM

² *Breaking away: The secrets to scaling analytics.* McKinsey & Company.

³ *Big Data Fabric 2.0 Drives Data Democratization.* Forrester Research, Inc.