

Build An Agile BI Organization To Support An Insights-Driven Culture

Organization: The Business Intelligence Playbook

by Boris Evelson
February 19, 2019

Why Read This Report

An insights-driven organizational culture is key to enterprise success and competitive differentiation, and Agile business intelligence (BI) is a required foundational component to make it succeed. This report dives into the people part of the Agile BI tetrad — Agile BI software development, organizations, processes, and technologies. It provides an organizational framework that describes how application development and delivery (AD&D) professionals working on BI initiatives can align their BI organization for agility.

This is an update of a previously published report; Forrester reviews and updates it periodically for continued relevance and accuracy.

Key Takeaways

Organize For Agility

BI requirements are often out of date even before the first set of specifications has been collected and documented. Agility is the current frontier in the battle for BI success and the keystone to Forrester's Agile BI tetrad.

Empower Business Users To Build Their Own BI Apps

Firms can't become insights driven until they empower business users to build up to 80% of their own BI reports and dashboards. Don't fight users who want to grow their own apps for fear of losing control and a single version of the truth; fight battles only for the most mission-critical BI apps. For the rest, empower users to build their own.

Fill BI Technology Roles From Your Business

Finding and retaining BI talent is a top challenge. Before going outside, look internally for the business users who perform "shadow IT" BI functions and bring them into the BI support organization. Then empower them organizationally and give them the right technology to draw them out of the shadows.

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[Eliminate Confusion In Data Management Roles And Responsibilities](#)

[Four Essential Steps To Transform To An Insights-Driven Business](#)

[Organize For Digital Intelligence With Three Models](#)

[Use The Insights Center Of Excellence To Orchestrate Analytics Across Organizational Silos](#)



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Move From Data-Driven To Insights-Driven BI Support Organizations

Data- and technology-centric organizations have already fought — and largely lost — the battle of trying to apply a traditional waterfall software development life-cycle (SDLC) methodology and project management to BI. These approaches and best practices, which apply to most other enterprise applications, work well in cases such as mission-critical, enterprise-grade BI capabilities that have a shelf life of a year or more, like tax or regulatory reporting.¹ But they don't work for the majority of BI initiatives, where requirements change much faster than traditional approaches can support. By the time a traditional BI application development team rolls out what it thought was a well-designed BI application, it's too late. AD&D pros need to move beyond earlier-generation, data-driven, technology-centric BI support organizations and instead:

- › **Focus on business outcomes, not just data and technology.** Earlier-generation BI programs lacked an outcomes-first mentality. Those data-driven programs employed bottom-up approaches that focused on project management, architecture, and technology first, leaving clients without the proper outcomes they needed to manage the business; in other words, they created an insights-to-action gap. AD&D pros working on BI initiatives should use a top-down, outcomes-first approach that defines then instruments the applications to measure KPIs and metrics that support the business' goals and objectives.² Resist the temptation to address technology and data needs before the business requirements.³
- › **Put the business in charge.** Anecdotal evidence indicates that there's a direct correlation between business ownership of BI initiatives and success. The evidence strongly supports one of Forrester's key principles of insights-driven businesses: Insight collection and implementation is a team sport.⁴ You can eliminate the stigma associated with BI as a technology-centric, technology-professional-driven cost center by moving the BI support organization under direct or partial control of the business. Almost half (49%) of global data and analytics decision makers report already doing this, indicating that they're embracing insights-driven best practices.⁵ Additionally, 41% of global data and analytics decision makers who use or have purchase influence over BI tools sit in the business.⁶
- › **Drop the technology-centric mentality and methodologies.** Even the most modern SDLC and project management methodologies that call for heavy business involvement foster technology centrality. While they're constantly evolving, these methodologies' roots are in the 1980s and 1990s, when we lacked the luxury of BI commodities like in-memory data exploration, semantic data access layers, user-friendly GUIs, and report-building wizards with hints and prompts. Few AD&D pros should spend their time designing BI dashboard layouts. Why? All modern BI tools offer drag-and-drop and search-like UIs where any trained business user can pick the appropriate metrics from a menu, arrange them on a dashboard screen, and share the results with colleagues — or with the entire enterprise. More modern UIs that include natural language processing (NLP) and natural language generation (NLG) interfaces require even less AD&D work to deploy them and less training for business users to become self-sufficient.⁷

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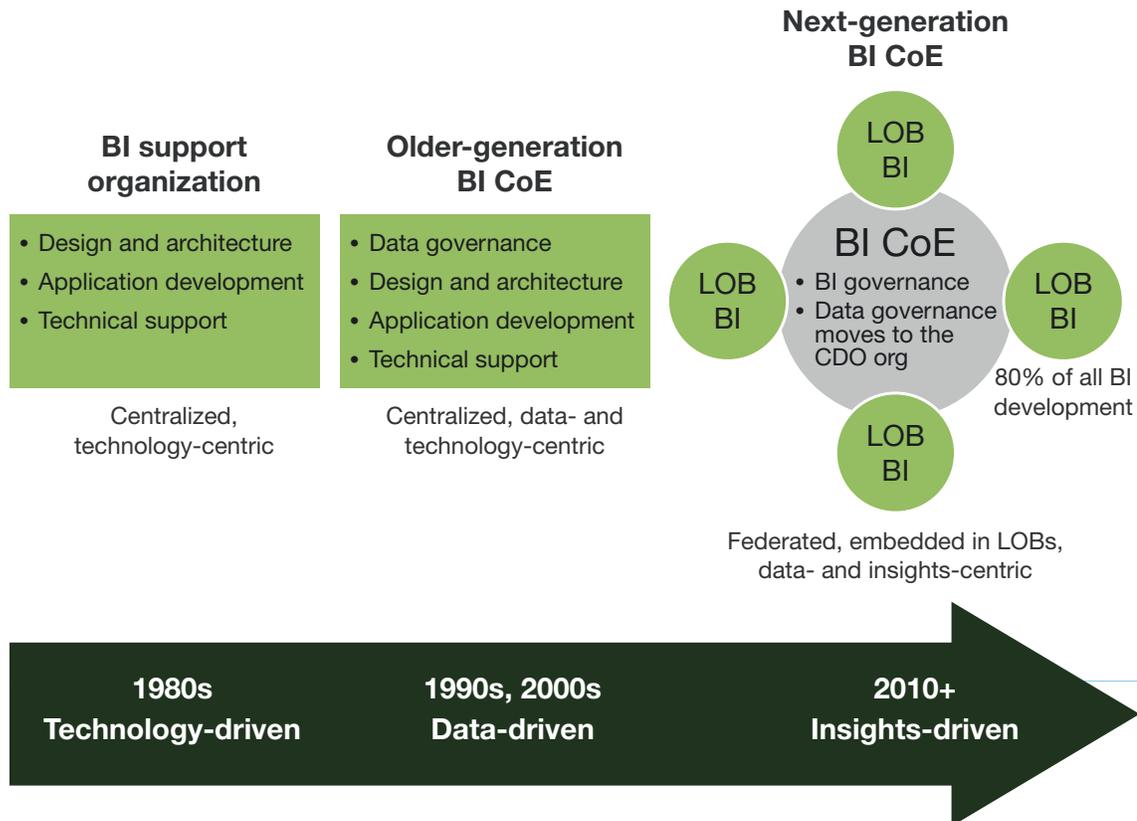
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Deploy An Insights-Driven BI CoE For Flexibility And Agility

The 52% of global data and analytics decisions makers whose organizations already have a BI center of excellence (CoE), along with those who don't, must look beyond data-driven, technology-centric models.⁸ As a next step in the evolution of the BI CoE, AD&D pros working on BI initiatives should structure the organization along one of Forrester's key insights-driven organization principles and best practices: Build agile, cross-functional insights teams embedded in the business and accountable for clear insights-driven outcomes. We define such a modern BI CoE as (see Figure 1):

A permanent, cross-functional, virtual, or physical organizational structure, loosely coupled for flexibility and agility, responsible for the governance and processes necessary to deliver or facilitate the delivery of successful BI solutions as well as being an institutional steward of, protector of, and forum for BI best practices. The BI CoE is a foundational component of the insights-driven business.

FIGURE 1 The Evolution Of A BI Center Of Excellence's Focus: From Technology To Data To Insights



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Apply Three Key BI CoE Best Practices: Focus On Business, Business, Business

Hopefully AD&D pros already implement most of the DevOps best practices.⁹ They still apply, but AD&D pros working on BI initiatives should also focus on the following:

- › **Business best practice No. 1: Insist on business ownership of BI.** There's a reason it's called *business* — not technology — intelligence. One manufacturing client told us that it was not until subject matter experts convinced the CIO to place a business leader on the BI CoE team full-time that it gained the necessary business participation in the program. Business leaders, not technology project managers, should be responsible for prioritizing requirements, managing business stakeholder expectations, and reducing or eliminating certain nonfunctional requirements. This client's development team avoided having to build a complex security access solution simply by working with compliance to remove the requirement altogether — something that it could not have done without the business expertise and leadership of this particular individual.
- › **Business best practice No. 2: Foster a business and technology partnership.** Many businesspeople incorrectly believe that data quality is a technology problem that technology pros must solve. This of course makes no sense, as only businesspeople can effectively articulate how poor-quality data affects the business processes and decisions they own. This belief led technology organizations to develop an “if we build it, they will come” mentality, investing millions from tech budgets into horizontal data management infrastructure ranging from data warehouses and BI platforms to data quality and MDM solutions.¹⁰ Unfortunately, this approach leaves business stakeholders with low confidence and trust in the data coming from these systems to support business-critical processes and decisions. Mitigate these risks by bringing technology pros into the business strategy and requirements process much earlier and ensuring that the business participates and validates the tech organization's approach to the solution throughout the development life cycle.
- › **Business best practice No. 3: Deploy business-usage-focused BI governance.** Technology pros already use a wide variety of tools and processes to monitor network, server, storage, and application performance. AD&D pros working on BI initiatives should also deploy BI governance processes and technology to understand what their business partners are doing in BI.¹¹ Basically, they need to run the BI environment by the numbers (the BI environment itself needs to become insights driven): for example, determining frequently versus infrequently used BI applications; understanding the effectiveness of BI applications (whether the business users are getting answers to their questions or just exporting data to Excel); and knowing other relevant BI usage trends by lines of business (LOBs), departments, and applications. Just like business insights processes need to continuously learn and improve, so do BI processes.¹²

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Find A Perfect Balance Between Agility And Flexibility Versus Governance And Control

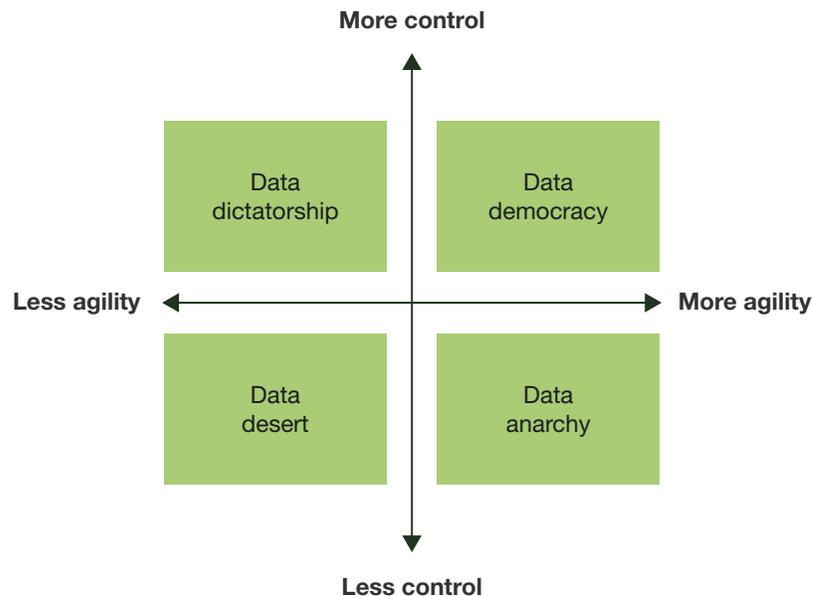
Organizational silos carry clear risks: redundant resources and information silos. However, we often fail to credit organizational silos for their agility: An LOB owner with his own BI resource calls the shots and does not have to concern himself with the BI priorities of other LOBs. Centralized organizations, on the other hand, foster enterprise-level resource rationalization, but they are inherently bureaucratic and often bogged down in endless steering committee meetings. The key to a perfect middle ground is balancing control and agility. The wrong balance may manifest in inefficient structures like a data dictatorship or data anarchy, whereas the right mix will result in the most desired outcome: a data democracy (see Figure 2). AD&D pros should advise business owners of BI to apply four organizational best practices:

- › **Loosely couple the data management and BI support organizations.** Aligning the BI objectives and priorities of the business and tech organizations is often challenging — for example, the business goal of revenue generation and risk mitigation versus the technology goal of cost savings, or the business priority of selecting the best tool for the job versus the technology priority of using enterprise-standard BI tools. Don't fight these disconnects — leverage them! AD&D pros should do what they do best: Own the data preparation layers of the BI stack, such as data integration, metadata, and data warehousing. Then business users can get more involved and own the data usage layers of BI, building their own reports and dashboards and analyzing the data that has been integrated and standardized according to corporate policies.¹³ Unfortunately, most organizations are stuck in the 1990s and still govern data management and BI out of the same organization.¹⁴
- › **Empower business users with agile self-service data preparation tools.** The business must own the rules, definitions, policies, and measures of data quality. Why? Our evidence suggests that tech-driven data quality and MDM fail to deliver. Rather than impulsively bundling MDM and data quality into the data management category, consider them business-owned data usage tasks, as the business owns the context of the definitions for ensuring the delivery of quality, trusted master data. Additionally, using modern, agile data preparation and Agile BI tools (with data preparation features), business users can create their own data pipelines and pass them on to AD&D as reusable content. AD&D pros then simply comply with these standards or leverage business-user-built data preparation content for operationalizing and installing in production environments. At firms with a BI CoE, 75% of global data and analytics decision makers report already offering these tools for self-service data management by end users.¹⁵
- › **Establish a hub-and-spoke organizational model.** Siloed BI support poses obvious issues, like duplication of effort and the difficulty of achieving a single version of the truth. But moving too far in the other direction toward a fully centralized, shared-services BI organization often creates rigidity and bureaucratic layers of control. In the end, such seemingly noble attempts at centralization lead to the same proliferation of processes and applications that they intended to eliminate. An increasing number of battle-scarred organizations have split the difference and created a hub-and-spoke BI organizational structure, often mimicking a hub-and-spoke business structure (see Figure 3).¹⁶

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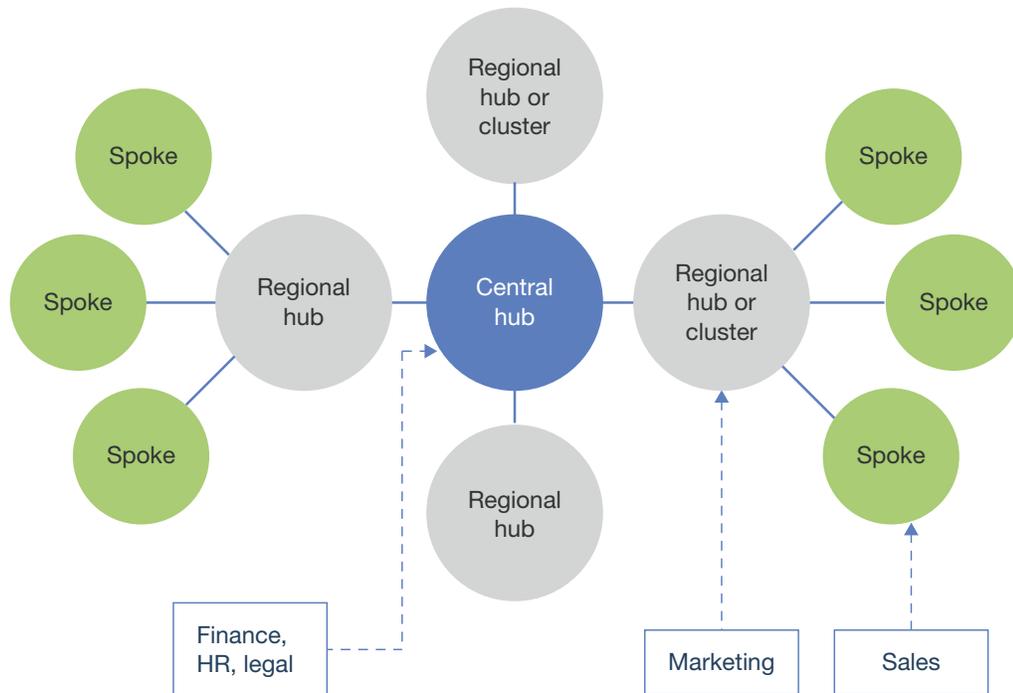
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- › **Set up different guidelines for supporting front- and back-office BI applications.** Back-office organizations (like finance and HR) and front-office organizations (like sales and marketing) have very different tolerances for risk, accuracy, and latency. Control, a single version of the truth, compliance, and reduced operational risk are nonnegotiable requirements in the back office. But customer-facing front-office priorities often differ. A salesperson may need to do something quick and dirty to retain a customer or close a deal, even at the expense of potentially jeopardizing accuracy and compliance with standards. We often hear that in certain situations — such as addressing a competitive threat, closing a deal, or keeping a customer from defecting — business users may prefer the speed and agility that self-service BI gives them over a single version of the truth.¹⁷

FIGURE 2 Balance Control And Agility In A BI Center Of Excellence

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FIGURE 3 An Enterprise Hub-And-Spoke Organizational Structure**Recommendations****Kick Off Your BI CoE By Leveraging Your Existing Experts**

Most of the core technology and business skills needed to jump-start your BI CoE likely exist in your organization today, although you may need to develop, recruit, or contract for skills like program management or business change management. The trick is successfully ensuring management support to get these skilled resources allocated to the BI CoE on an ongoing basis and providing clarity on the level of participation required. As an AD&D pro working on a BI initiatives, you should:

- › **Get a top-down mandate to invest in and prioritize the BI CoE program.** While grassroots governance of BI programs and strategies can sometimes succeed in returning value to the business, programs sponsored from the top down consistently deliver more value over a shorter period of time. Insist on a strong mandate from a business executive. If this doesn't come naturally — for example, if your business execs are falling behind the times and haven't bought into the idea of insights-driven business models — try to whet their appetites by filling out Forrester's BI maturity self-assessment tool as well as our insights-driven business self-assessment to gauge where you are in this journey.¹⁸ Sometimes such a picture speaks volumes.

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- › **Upgrade talent acquisition practices to fill BI CoE roles with deep expertise.** Most data and analytics decision makers report that their firm is recruiting more people with advanced data skills.¹⁹ Yet in today's competitive environment, attracting talented BI employees is a major challenge. While employee recommendations are the strongest information source for talent acquisition, social networks like LinkedIn and Glassdoor now provide ways to find and attract passive candidates who are not actively seeking a job. Assembling the right team requires getting creative.
- › **Make BI talent retention and appreciation your top priority.** BI is so hot that many companies are complaining of a BI brain drain. Anecdotal evidence continues to show a deep divide between the recognition that workers want from their employers and peers and what they actually get. Information and BI workers feel underappreciated; while many workers say their employers value teamwork, they're less certain that their direct managers do. And though people crave time and location flexibility in their careers, many don't get those freedoms. BI managers must create a deliberate BI human-capital management strategy that rewards success, improves productivity, and incentivizes innovation.²⁰
- › **Feel comfortable outsourcing parts of your BI processes to consultants.** Leverage economies of scale and outsource repetitive and commoditized tasks — like platform conversions, upgrades, bug fixing, and testing — to offshore firms at a lower cost than onshore, internal full-time employees could do them. Additionally, complex, global BI projects, especially when they involve business process re-engineering and organizational change management, contain many opportunities to make mistakes. Learn from the mistakes of others rather than your own by partnering with large management consulting and systems integrator firms that have learned from thousands of mistakes and turned these lessons into best practices.²¹
- › **Give AI special consideration and treatment.** As more and more BI technologies infuse artificial intelligence, specifically machine learning components, be sure that your BI CoE addresses these new challenges, either as part of its responsibility or working in unison with an AI center of excellence. As part of your AI/BI governance, verify whether the outcomes of machine-learning-based predictive or prescriptive applications make sound business sense. You must also govern training data for supervised machine learning to stay in control of provenance (where did it come from, who trained it, and how was it trained), versioning, and repeatability (replicating the same outcomes).²²

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Supplemental Material

Survey Methodology

The Forrester Analytics Global Business Technographics® Data And Analytics Survey, 2018, was fielded between February and March 2018. This online survey included 2,879 respondents in Australia, Canada, China, France, Germany, India, the UK, and the US from companies with 100 or more employees.

Forrester Analytics' Business Technographics ensures that the final survey population contains only those with significant involvement in the planning, funding, and purchasing of business and technology products and services. Research Now fielded this survey on behalf of Forrester. Survey respondent incentives include points redeemable for gift certificates.

Please note that the brand questions included in this survey should not be used to measure market share. The purpose of Forrester Analytics' Business Technographics brand questions is to show usage of a brand by a specific target audience at one point in time.

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Forrester's Q4 2016 Global Business Intelligence Organization Online Survey was fielded to 166 readers of Forrester BI reports. For quality assurance, we screened respondents to ensure that they met minimum standards in terms of content knowledge.

Forrester fielded the survey during Q4 2016. Respondent incentives included a complimentary copy of this report. Exact sample sizes are provided in this report on a question-by-question basis.

This survey used a self-selected group of respondents and is therefore not random. This data is not guaranteed to be representative of the population, and, unless otherwise noted, statistical data is intended to be used for descriptive and not inferential purposes. While nonrandom, the survey is still a valuable tool for understanding where users are today and where the industry is headed.

Companies Interviewed For This Report

We would like to thank the individuals from the following companies who generously gave their time during the research for this report.

Actuate	Microsoft
Computer Sciences Corporation	PricewaterhouseCoopers
Ernst & Young Global	QlikTech
Fujitsu	SAP
HP	Tableau Software
IBM	TCS
Infosys	Virtusa
KPMG	Wipro

Endnotes

- ¹ Even something as stable as tax reporting changes all the time in the modern world. Source: "7 Reasons To Transform Tax With Technology," Thomson Reuters (<https://tax.thomsonreuters.com/wp-content/pdf/taxologist/7Reasons.pdf>).
- ² This process is underway: 43% of global senior data and analytics decision makers report instrumenting applications and technical environments to measure key performance indicators (KPIs). Source: Forrester Analytics Global Business Technographics Data And Analytics Survey, 2018.
- ³ See the Forrester report "[Maximize Your Chances Of Business Intelligence Success In A Customer-Centric World.](#)"
- ⁴ See the Forrester report "[Insights-Driven Businesses Set The Pace For Global Growth.](#)"
- ⁵ Seventeen percent of global data and analytics decision makers report that sales/marketing has significant ownership of business intelligence and analytics; another 18% say the capabilities are owned by the department of a chief data officer within a business unit; and 14% report that a line of business within the organization is responsible for BI. Source: Forrester Analytics Global Business Technographics Data And Analytics Survey, 2018.

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⁶ Source: Forrester Analytics Global Business Technographics Data And Analytics Survey, 2018.

⁷ See the Forrester report "[AI Unlocks The Business Intelligence In BI.](#)"

⁸ Source: Forrester Analytics Global Business Technographics Data And Analytics Survey, 2018.

⁹ See the Forrester report "[Technologists — And The Business — Must Execute At The Speed Of DevOps.](#)"

¹⁰ MDM: master data management.

¹¹ See the Forrester report "[BI On BI: How To Manage The Performance Of BI Initiatives.](#)"

¹² See the Forrester report "[Divide \(BI Governance From Data Governance\) And Conquer.](#)"

¹³ The shift toward self-service BI is already evident at firms with a BI CoE. Specifically, 75% of decision makers at firms with a BI CoE report enabling self-service BI, compared to just 23% of those at firms with no interest or immediate plans to form a BI CoE. Source: Forrester Analytics Global Business Technographics Data And Analytics Survey, 2018.

¹⁴ In 2016, Forrester fielded an online survey to learn more about companies' BI organization. A majority (58%) of respondents reported that BI and analytical data management are supported by the same function within their organization. While we have not fielded a similar survey recently, Forrester regularly engages in inquiries, briefings, and advisory sessions with BI firms; based on these meetings, we believe that those reported figures were true at the time and have not changed significantly since. Source: Forrester's Q4 2016 Global Business Intelligence Organization Online Survey.

¹⁵ Source: Forrester Analytics Global Business Technographics Data And Analytics Survey, 2018.

¹⁶ In 2016, Forrester fielded an online survey to learn more about companies' BI organizations. 46% of the survey respondents had a hub-and-spoke organizational structure for BI, while 7% partially relied on that model. While we have not fielded a similar survey recently, Forrester regularly engages in inquiries, briefings, and advisory sessions with BI firms; based on these meetings, we believe that those reported figures were true at the time and have not changed significantly since. Source: Forrester's Q4 2016 Global Business Intelligence Organization Online Survey.

¹⁷ In 2016, Forrester fielded an online survey to learn more about companies' BI organizations. 41% of those surveyed reported fully (24%) or partially (17%) separating BI support functions for front-office and back-office BI applications and projects. While we have not fielded a similar survey recently, Forrester regularly engages in inquiries, briefings, and advisory sessions with BI firms; based on these meetings, we believe that those reported figures were true at the time and have not changed significantly since. Source: Forrester's Q4 2016 Global Business Intelligence Organization Online Survey.

¹⁸ See the Forrester report "[Establish Ongoing Processes To Assess Your Business Intelligence Maturity](#)" and see the Forrester report "[Gauge Your Insights-Driven Business Maturity.](#)"

¹⁹ Fifty-four percent of global data and analytics decision makers say their firms are recruiting more people with advanced data skills, while another 23% say their firms plan to implement this initiative within the next 12 months. Source: Forrester Analytics Global Business Technographics Data And Analytics Survey, 2018.

²⁰ See the Forrester report "[The Employee Experience Imperative.](#)"

²¹ See the Forrester report "[The Forrester Wave™: Business Intelligence Platform Implementation Service Providers, Q2 2017.](#)"

²² See the Forrester report "[Use Forrester's AI Activation Framework For AI Results.](#)"

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