For: Application
Development
& Delivery
Professionals

The Forrester Wave™: Enterprise Business Intelligence Platforms, Q1 2015

by Boris Evelson, March 27, 2015

KEY TAKEAWAYS

Eight Well-Established, Mature BI Vendors Lead The Pack

Forrester's research uncovered a market in which SAS, SAP, IBM, Microsoft, Information Builders, Oracle, OpenText, and MicroStrategy lead the pack. Tableau Software, TIBCO Software, and Qlik offer highly competitive and often differentiated options.

The Big Data Era Is Injecting New Requirements Into Traditional BI Platforms

As traditional BI functionality (e.g., reporting and OLAP) becomes commoditized, buyers need to look for other differentiation, such as in the area of big data capabilities. BI on Hadoop; predictive, streaming, and text analytics; data exploration; and other features related to big data are now key strategic enterprise BI platform selection criteria.

A Single Enterprise BI Platform May Be A Vision But Is Seldom A Practical Reality

Having 10 different BI platforms within one company is overkill, but trying to standardize on a single platform brings diminishing returns. Enterprises will likely settle on at least three platforms: a broad enterprise suite; BI embedded in core business applications, such as ERP; and lightweight desktop self-service tools for business users.

Access The Forrester Wave Model For Deeper Insight

Use the detailed Forrester Wave model to view every piece of data used to score participating vendors and create a custom vendor shortlist. Access the report online and download the Excel tool using the link in the right-hand column under "Tools & Templates." Alter Forrester's weightings to tailor the Forrester Wave model to your specifications.

The Forrester Wave™: Enterprise Business Intelligence Platforms, Q1 2015

The Top BI Vendors That Matter Most And How They Stack Up

by Boris Evelson
with Holger Kisker, Ph.D., Martha Bennett, and Sophia Christakis

WHY READ THIS REPORT

In Forrester's 60-criteria evaluation of enterprise business intelligence (BI) platform vendors, we identified the 11 most significant software providers — IBM, Information Builders, Microsoft, MicroStrategy, OpenText, Oracle, Qlik, SAP, SAS, Tableau Software, and TIBCO Software — and researched, analyzed, and scored their current market offerings. This report details our findings about how well each vendor fulfills Forrester's evaluation criteria and where they stand in relation to each other to help application development and delivery (AD&D) professionals select the right vendor for their enterprise BI platform.

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Notes & Resources

Forrester conducted survey- and demo-based evaluations in October and November 2014 and interviewed 11 vendors and 59 user companies.

Related Research Documents

TechRadar™: Business Intelligence, Q1 2015
February 23, 2015

The Forrester Wave™: Agile Business Intelligence Platforms, Q3 2014
July 3, 2014

Forrester's 10-Step Methodology For Shortlisting Business Intelligence Vendors
May 23, 2014

BI SOFTWARE WILL CONTINUE TO CHALLENGE AD&D PROS FOR YEARS

The majority of large organizations have either already shifted away from using BI as just another back-office process and toward competing on BI-enabled information or are in the process of doing so. Businesses can no longer compete just on the cost, margins, or quality of their products and services in an increasingly commoditized global economy. Two kinds of companies will ultimately be more successful, prosperous, and profitable:

■ **More and deeper insights will generate competitive advantage.** Companies with richer, more accurate information about their customers and products than their competitors will gain substantial competitive advantage.

■ **Faster access to insights will make companies more agile.** Companies that have the same quality of information as their competitors but get it sooner and can turn it into action faster will outpace their peers.

Confirming the trend, Forrester's Business Technographics® Global Data And Analytics Survey, 2014 showed that top business performers (those with 15%-plus year-over-year revenue growth) planned to invest 38% more of their technology budget in BI in 2014 than their slower-growing peers and competitors.[1]

The BI Software Market Is Becoming More Crowded And Complex Every Year

The software industry recognized this trend decades ago, and, as a result, the BI market is swarming with new startups that appear and (very often) find success faster than large vendors can acquire them. The market is still jam-packed and fragmented with more than a hundred BI vendors — a trend supported by a steady 19% increase in the adoption of "other" BI software vendors from 21% in 2012 to 24% in 2014 (see Figure 1). Forrester attributes the trend to both the increased number of opportunistic BI startups taking advantage of the market fragmentation and their innovative architectures (cloud, in-memory, new types of user interfaces) that continue to challenge the incumbents. At one point in time or another, AD&D pros working on BI initiatives will encounter and have to deal with multiple vendor-specific market dynamics such as:

■ **Most ERP, CRM, and other business applications vendors offer strong BI platforms . . .** Stack or suite versus best-of-breed is no longer a consideration. All large vendors of packaged business applications have either built or acquired best-of-breed BI platforms over the past few years. And the pace of acquisition has not slowed: On top of multiple BI acquisitions by enterprise resource planning (ERP) and customer relationship management (CRM) vendors over the last decade, more recently SAP acquired KXEN; IBM acquired Star Analytics, StoredIQ, and The Now Factory; Microsoft acquired Revolution Analytics; and Salesforce acquired EdgeSpring.[2] Indeed, Forrester data indicates that Microsoft, Oracle, IBM, and SAP vendors are currently the most popular BI choices for companies.

- **. . . but there's also plenty of room for independent BI vendors.** If your sourcing and vendor management policy calls for diversification and less dependence on a single "full software stack" vendor, rest easy — you have abundant options.[3] Information Builders, SAS, and TIBCO Software deliver one-stop BI shopping, and they offer not just BI but also most of the data management platforms and tools. Actuate (acquired by OpenText on January 16, 2015) and MicroStrategy offer reporting and analytics platforms that can scale to the needs of large enterprises. Advisor Solutions, Alteryx, Panorama, Qlik, Sisense, and Tableau Software provide differentiated, highly visual, intuitive analytics oriented toward business users.

- **Departmental desktop BI tools aimed at business users are scaling up.** Qlik, Tableau Software, and TIBCO Spotfire started out by offering departmental desktop-based technologies that appealed to business users due to their ease of use and lesser reliance on enterprise technology support. While that appeal is still there, these vendors are now going after large, cross-enterprise implementations with features that challenge larger vendors in terms of scalability, security, rich metadata, internationalization, application programming interfaces (APIs), and other industrial-strength enterprise features.

- **Enterprise BI platform vendors are going after self-service use cases.** Large enterprise BI platform vendors aren't resting on their laurels; they're prioritizing investments in self-service, in-memory, desktop, and cloud products that appeal to business users. Because these tools are part of larger, more complete enterprise BI platforms, vendors often give them away for free or at lower cost. For example, you get IBM Cognos Insight if you have Cognos 10 enterprise licenses; SAP BusinessObjects Explorer and SAP Lumira if you buy the BusinessObjects BI suite; or the self-service BI features in Microsoft Excel 2013 like Power Pivot, Power View, Power Map, and Power Query if you have Microsoft Office 2013 or SharePoint 2010. These vendors have an additional advantage: AD&D pros can migrate self-provisioned BI applications to their more scalable platform. This puts a lot of pressure on the vendors with a traditional business user focus.

AD&D pros also need to consider other more recent market dynamics that are influencing BI vendor strategies and positioning, such as:
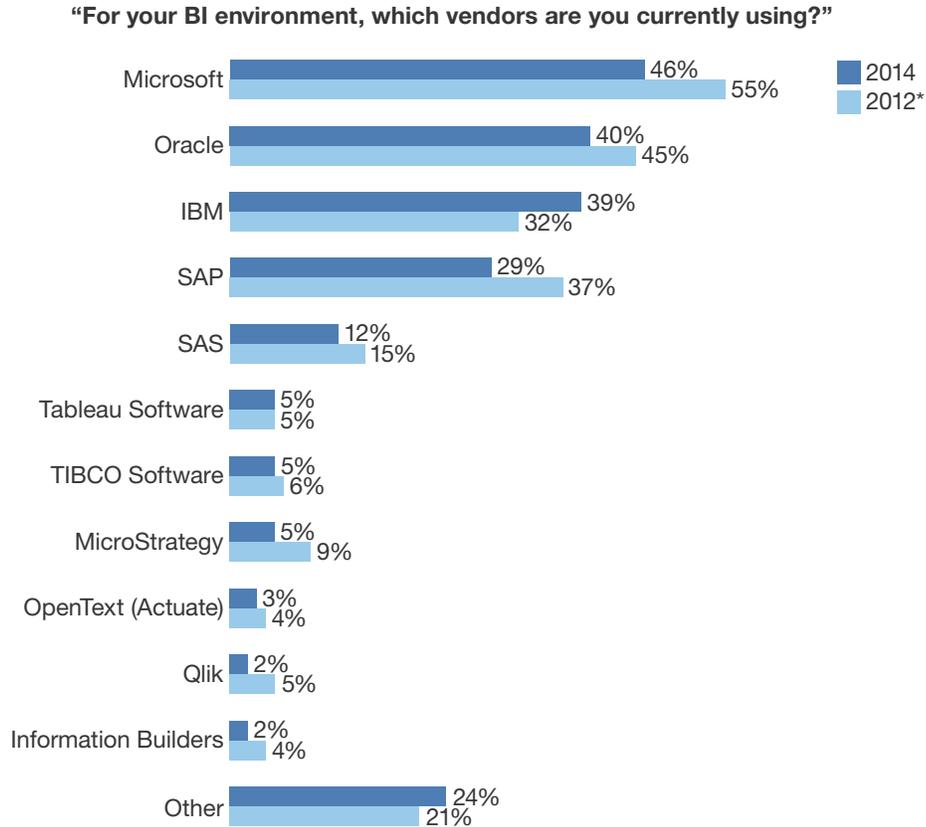
- **Cloud services offer options to firms that prefer not to deal with BI stack complexity.** Got data, want information, but don't want to deal with installation, configuration, integration, tuning, optimization, maintenance, and support? Large vendors such as Microsoft, MicroStrategy, OpenText (Actuate), Oracle, SAP, Tableau Software, and TIBCO Software and native cloud BI vendors like Bime, Birst, GoodData, and Rosslyn Analytics offer very attractive cloud-services-based options for such use cases.

- **Hadoop is breathing new life into BI functionality.** Most BI vendors can query Hadoop Distributed File System (HDFS) data sets via relational structures like Hive. An emerging trend, however, is also to analyze HDFS data in a nonrelational, NoSQL approach, cutting data-to-insights time by eliminating data movement, data integration, and data modeling steps and

exploring data in its native "raw" state. Established vendors like Oracle (Big Data Discovery) and Teradata (Loom) and emerging tools from Attivio, Datameer, and Platfora are jumping on the fast-moving "BI on Hadoop" train.

- **Open source BI finds a new life inside "mother ships."** In the past 10 months, three leading BI vendors whose software and business models are based to a significant degree on open source have been acquired: Jaspersoft by TIBCO Software, Actuate by OpenText, and a recently announced Hitachi Data Systems (HDS) intent to acquire Pentaho.[4] These acquisitions confirm Forrester's long-held view that open source BI commercial models run into significant challenges as a standalone software business. However, Forrester predicts that open source BI will continue to play an important role in embedded BI, custom-developed BI applications, and as tools and components that systems integrators (SIs) offer as project accelerators and/or client solutions that require no commercial licenses.

- **The line between BI software and services is blurring.** Leading consultants and SIs are riding the BI wave; they're getting into BI outsourcing deals where they take on the burden of managing a client's data and providing information-as-a-service, often hiding architecture and software complexities from the client.[5] To help differentiate themselves from competitors, in the past two years Accenture acquired i4C Analytics, Infosys acquired Panaya, and KPMG took a substantial equity stake in Bottlenose. The latest announcement by HDD, a sister company to Hitachi Consulting, also confirms the trend where SIs will come to projects armed with their own products and other IP, in addition to helping clients to integrate and deploy third-party BI platforms.

The BI use cases and vendors cited above don't even come close to comprising a complete list. Other use cases include lightweight BI platforms that lend themselves to embedding into other applications, prebuilt components that can be quickly assembled into use-case-specific BI apps, and tools that extract data from exotic data sources such as mainframe reports. The complete list of more than a hundred vendors that Forrester tracks in this market also includes 1010data, Adaptive Insights, Antivia, arcplan, Bitam, Board, BPM-Counseil, Chartio, Datahero, Datawatch, Decisyon, Dimensional Insight, Domo, Dundas Data Visualization, Exago, HiCare, Incorta, InetSoft Technology, Infor, Jinfonet Software, Klipfolio, Lavastorm Analytics, Logi Analytics, Looker Data Sciences, Matillion, Phocas, JSC Prognoz, Pyramid Analytics, Rocket Software, Salient Management Company, SpagoBI, Targit, Treasure Data, and Yellowfin.

Figure 1 Adoption Of Vendors Participating In Forrester's 2015 Evaluation Of Enterprise BI Platforms

"For your BI environment, which vendors are you currently using?"

Vendor	2014	2012*
Microsoft	46%	55%
Oracle	40%	45%
IBM	39%	32%
SAP	29%	37%
SAS	12%	15%
Tableau Software	5%	5%
TIBCO Software	5%	6%
MicroStrategy	5%	9%
OpenText (Actuate)	3%	4%
Qlik	2%	5%
Information Builders	2%	4%
Other	24%	21%

Base: 746 North American and European technology decision-makers
*Base: 603 North American and European technology decision-makers
(multiple responses accepted)

Note: TIBCO Software includes both TIBCO Spotfire and Jaspersoft. Quiterian, acquired by Actuate in 2012, was added to Actuate's 2012 results.

Source: Forrester's Business Technographics® Global Data And Analytics Survey, 2014
*Source: Forrester's Forrsights Strategy Spotlight: Business Intelligence And Big Data, Q4 2012

BI Platform Differentiation Lies In Minute Technical Details

Categorizing, evaluating, and ranking these 100-plus BI software vendors is a daunting task. Selecting a BI platform purely on better reporting, querying, OLAP, dashboarding, and data visualization (core components of most BI platforms) will lead to just a few critical variances, often not enough to highlight major differentiating factors between vendor A and vendor B. Therefore, Forrester recommends a rather detailed approach, such as the one we used in this evaluation, where we decomposed vendor offerings into hundreds of detailed features organized by four categories:

1. **Architecture.** The first evaluation category concentrates on the architecture of the product and evaluates data access, data integration, information delivery, and technical and metadata architecture.

2. **Application development capabilities.** The second evaluation category weighs the application development capabilities of the product and evaluates such features as integrated development environments (IDE), software development kits (SDKs), and APIs.

3. **Functional capabilities.** The third evaluation category focuses on the functional capabilities of the product and evaluates such features as analytics, collaboration, data visualization, knowledge management, master data management (MDM), performance management, reporting, and self-service.

4. **Operational capabilities.** The fourth evaluation category looks at the operational capabilities of the product and evaluates such features as administration and security.

The detailed list of BI platform capabilities and features is much, much longer. As part of the research conducted for this Forrester Wave, Forrester collected more than 750 data points from each vendor and consolidated them into 60 criteria.

ENTERPRISE BI PLATFORMS EVALUATION OVERVIEW

To assess the state of the market for enterprise business intelligence platforms and see how the vendors stack up against each other, Forrester evaluated the strengths and weaknesses of top enterprise BI platform vendors.

Evaluation Criteria: Current Product Offering, Strategy, And Market Presence

After examining past research, user need assessments, and vendor and expert interviews, we developed a comprehensive set of evaluation criteria. We evaluated vendors against 60 criteria, which we grouped into three high-level buckets:

- **Current offering.** We assessed each vendor's current offering by considering all of the features and capabilities reviewed above. We also evaluated a short demonstration by each vendor of its key capabilities and surveyed a total of 59 of the vendors' customers.

- **Strategy.** We reviewed each vendor's strategy and considered how well each vendor's plans for product enhancement position it to meet future customer demands. We also looked at the financial and human resources the company has available to support its strategy and each vendor's go-to-market pricing and licensing strategy.

- **Market presence.** To establish a product's market presence, we combined information about each vendor's financial performance, installed customer base, and number of employees across major geographical regions with information about its partnership ecosystem and its horizontal and vertical industry applications.

Evaluated Vendors Have What It Takes To Support BI In Complex Organizations

Forrester included 11 vendors in the assessment: IBM, Information Builders, Microsoft, MicroStrategy, OpenText, Oracle, Qlik, SAP, SAS, Tableau Software, and TIBCO Software. Each of these vendors has (see Figure 2):

- **A complete, self-contained, fully functional BI platform development environment.** We focused on BI tools that are not technologically or functionally tied or limited to particular functional or horizontal applications like ERP or CRM. These tools must be complete, self-contained BI environments or platforms that do not necessarily have to be embedded into other applications.

- **The ability to query databases using SQL and MDX.** While other querying technologies, such as XQuery and DMX, are available and NoSQL data architecture is on the rise for certain BI use cases, SQL and MDX are the database query technologies still most widely used in large enterprises.

- **Sufficient market presence and interest from Forrester clients.** We included the top 11 vendors by BI revenue that also had at least 100 in-production customers and were present in more than one major geographical region. We also focused on vendors that Forrester clients frequently mentioned or asked about in the context of BI (measured as more than 25 inquiries over the past 12 months).

March 27, 2015

Figure 2 Evaluated Vendors: Product Information And Selection Criteria

Vendor	Product	Version
IBM	IBM Cognos Business Intelligence	10.2.2
Information Builders	WebFOCUS Platform	8.0.09
Microsoft	SQL Server SharePoint Excel Power BI Azure Machine Learning	2014 2013 2013
MicroStrategy	MicroStrategy Analytics Platform	9.4.1
OpenText	OpenText Actuate iHUB	3.1
Oracle	Oracle BI Foundation Suite	11g
Qlik	Qlik Sense QlikView	1.0 11.2
SAP	SAP BusinessObjects Business Intelligence	4.1
SAS	SAS Enterprise BI Server SAS Visual Analytics SAS Office Analytics	9.4 7.1 7.1
Tableau Software	Tableau Desktop Tableau Server Tableau Online	8.3 8.3 8.3
TIBCO Software	TIBCO Spotfire TIBCO Jaspersoft	6.5 6.0

Figure 2 Evaluated Vendors: Product Information And Selection Criteria (Cont.)

Vendor selection criteria

At least three of the four major functional BI components that Forrester believes are critical for large enterprise BI environments: production and operational reporting, ad hoc querying, OLAP, and dashboards.
The ability to query databases using SQL and MDX. While other querying technologies such as XQuery and DMX are available, SQL and MDX are used most widely in large enterprises.
A complete, self-contained, fully functioning BI environment that is not technologically or functionally tied or limited to particular functional or horizontal applications like ERP or supply chain management. To be considered, a tool must be a complete, self-contained BI environment or platform that does not have to be embedded in other applications.
Significant market presence: at least 100 in-production customers present in more than one major geographical region and more than 10% of which are enterprise-grade installations that cross lines of business and have more than 100 users.
Frequent interest from Forrester clients in the form of questions about or mentions of a vendor in the context of inquiries about BI.
One of the top 11 vendors by BI revenues.
All products needed to be generally available by December 2014.

Source: Forrester Research, Inc. Unauthorized reproduction or distribution prohibited.

AD&D PROS NAVIGATE A BUYERS' MARKET THAT OFFERS PLENTY OF CHOICES

The evaluation uncovered a continuously evolving but overall stable market. While the evaluated vendors often leapfrog each other in individual releases, the others rarely rest on their laurels and catch up quickly. As a result, we did not find major vendor position shifts in the Forrester Wave since the last evaluation and uncovered a market in which (see Figure 3):

- **SAS, SAP, IBM, Microsoft, Information Builders, Oracle, OpenText, and MicroStrategy continue to lead the pack.** While many BI platform features are becoming commoditized, it's not the individual capabilities that differentiate the Leaders; rather, it's the completeness, comprehensiveness, and integration of the entire BI architectural stack. In addition to increasingly popular features like analytics, data visualization, dashboards, and data exploration, the Leaders also provide the pixel-perfect, industrial-strength report writers that companies still need. While many of the Leaders appear to be closely grouped, each of them differentiates itself in terms of specific individual capabilities, such as high scalability and tight integration with extract-transform-load (ETL), MDM, business performance solutions, portals, and other highly relevant data management and information delivery components. If one of the Leaders in this Forrester Wave is already your enterprise's preferred BI platform provider, AD&D pros may need little or no reason to look elsewhere for another specialized BI tool.

- **Tableau, TIBCO, and Qlik carry on with highly competitive and differentiated options.**
Vendors in the Leaders category can by no means rest easy: The Strong Performers are hot on
their heels, especially where the main use case calls for business user self-service and highly
visual and intuitive analytics. In many specialized situations, these vendors can even outshine
and outperform the Leaders. TIBCO Spotfire leads the market in highly visual streaming
analytics and business activity monitoring, tightly integrating it with process workflows,
rules, and advanced analytics to help enable the modern real-time enterprise. Qlik's QlikView
and Qlik Sense are hard to beat in intuitive and spontaneous data exploration and discovery,
providing a unique solution to the age-old BI challenge that "you don't know what you don't
know." Tableau Software's differentiation goes well beyond technology: Its platform embeds
most of the best practices that address the human psychology of visual perception to produce
the most intuitive visualizations.

This evaluation of the enterprise BI platform market is intended to be a starting point only. We
encourage AD&D pros working on BI initiatives to view the detailed product evaluations and adapt
criteria weightings to fit their individual needs through the Forrester Wave Excel-based vendor
comparison tool.

Figure 3 The Forrester Wave™: Enterprise Business Intelligence Platforms, Q1 '15
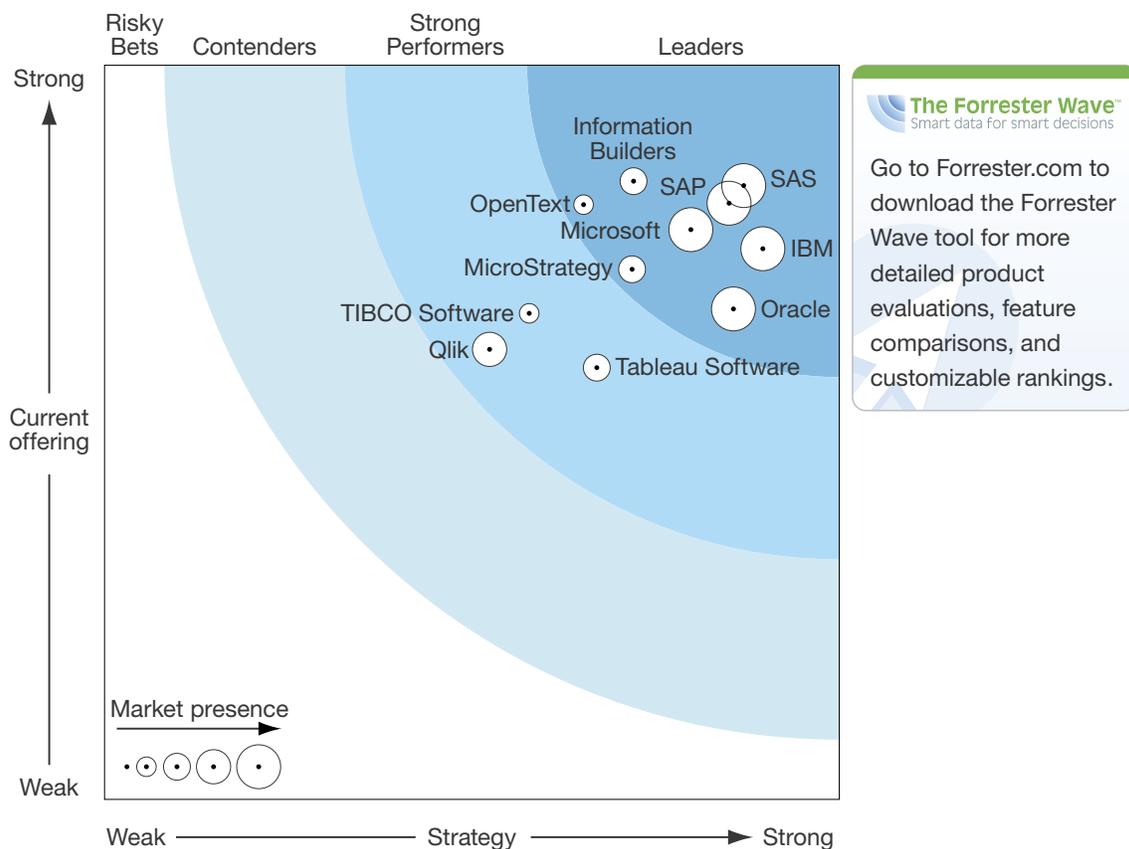
Figure 3 The Forrester Wave™: Enterprise Business Intelligence Platforms, Q1 '15 (Cont.)

	Forrester's Weighting	IBM	Information Builders	Microsoft	MicroStrategy	OpenText	Oracle	Qlik	SAP	SAS	Tableau Software	TIBCO Software
CURRENT OFFERING	50%	3.75	4.21	3.88	3.61	4.05	3.34	3.06	4.06	4.18	2.94	3.31
Architecture	50%	3.59	4.61	3.43	4.03	4.06	3.53	3.14	4.29	3.88	3.20	3.21
Development environment	20%	3.10	3.20	5.00	2.20	4.80	2.30	2.30	3.20	4.90	2.10	3.10
Functional	20%	4.43	4.30	4.25	3.73	3.38	3.73	3.40	4.50	4.44	2.98	3.88
Operational	10%	4.50	4.00	3.20	4.10	3.90	3.70	3.50	3.70	3.70	3.20	3.10
STRATEGY	50%	4.48	3.60	3.99	3.59	3.26	4.28	2.61	4.25	4.35	3.35	2.89
Commitment	65%	4.60	3.20	3.65	3.45	3.15	4.25	2.15	4.25	4.40	3.20	2.45
Pricing	0%	4.00	3.80	4.00	2.80	3.80	2.60	4.60	3.40	3.60	2.80	4.80
Transparency	5%	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	4.00	2.00
Product direction	30%	4.45	4.55	4.90	4.00	3.55	4.55	3.55	4.45	4.45	3.55	4.00
MARKET PRESENCE	0%	4.59	2.63	4.57	2.92	1.78	4.59	3.13	4.59	4.41	2.47	1.96
Company financials	60%	4.40	2.30	4.70	2.40	1.00	4.40	3.30	4.40	4.10	2.20	1.30
Global presence base	25%	4.80	3.20	4.80	4.10	3.30	4.80	3.20	4.80	4.80	3.20	3.30
Partnership ecosystem	10%	5.00	3.00	5.00	4.00	3.00	5.00	3.00	5.00	5.00	3.00	3.00
Functional applications	5%	5.00	3.00	1.00	1.00	1.00	5.00	1.00	5.00	5.00	1.00	1.00

All scores are based on a scale of 0 (weak) to 5 (strong).

VENDOR PROFILES

Leaders

■ **SAS provides leading enterprise BI tools in addition to its popular analytics platform.** Although firms have known SAS as a leader in advanced and predictive analytics for years, don't overlook the fact that it also has a formidable BI platform. Firms engage with SAS to benefit from one-stop shopping for data management (ETL, MDM, and data quality [DQ]) and BI products, expertise with business domain and industry vertical applications, and professional services. Using SAS BI can also help clients reduce their dependence on a single "full software stack" vendor. A few concerns about SAS BI include an absence of a full client "sandbox" offering, lack of commercial pricing transparency (SAS makes government pricing publicly available), and a failure to offer perpetual software licenses.

- **SAP continues to push the envelope with broad BI innovations.** Whether it's SAP Hana for low latency, agile, and in-memory analytics; Lumira for business user self-service; or Crystal Solutions for scalable, mission-critical reports, SAP's philosophy and strategy of "the best tool for each job" delivers on its promise. Firms engage with SAP on BI to benefit from one-stop shopping for data management (ETL, MDM, data warehouse, and DQ), BI products including the Hana appliance, and SAP's expertise with business domain and industry vertical applications based on its ERP experience. One concern that Forrester often hears about SAP BusinessObjects is that innovation and functional richness sometimes trump product-to-product integration; customers still face multiple user interfaces and cannot reuse some objects across various products within the SAP BusinessObjects suite.

- **IBM continues to differentiate by integrating Cognos with its data management portfolio.** Organizations looking for a single source to meet all their BI needs, including software, hardware (including mainframes), and professional services ("blue on blue on blue" as IBM calls such initiatives) can look no further than IBM. Forrester often sees clients work with IBM because of its significant investment in research and innovation (including the cognitive computing Watson ecosystem), one-stop shopping for data management and BI products, and the unique management consulting and SI capabilities of IBM Business Analytics and Optimization professional services organization. A few concerns include reliance on a single vendor, being late to market with some innovations (like cloud BI and agile BI), and implications resulting from the complexity of coordinating BI R&D across multiple IBM areas.

- **Microsoft BI builds on Office and SharePoint platforms, both on-premises and in the cloud.** Throughout the history of the BI market, Microsoft has dominated and will continue to dominate the market with Excel, the de-facto most-used BI platform around the globe. With every new release of SQLServer, Office, Office 365, and SharePoint (by continuing to introduce large enterprise BI features), Microsoft is making it easier for organizations to say "why not use Excel for enterprise BI." Forrester's clients often choose Microsoft for BI solutions because it offers one-stop shopping from desktop productivity tools to enterprise application servers and databases, including cloud-based deployments. Potential concerns mostly include dependence on other Microsoft products and platforms (Office, SharePoint, SQL Server, .NET, Visual Studio, etc.) — although the next version of Power BI cloud service will work with, but will be independent of, the full stack of Microsoft products and platforms — and reliance on partners for professional services.

- **Information Builders provides a broad platform to support all enterprise BI needs.** WebFOCUS continues to be a preferred choice for enterprises where high-end scalability (relying on more than 30 years of Information Builders experience with large data sets) and a broad set of integrated BI components are among the top requirements. Forrester clients often choose to work with Information Builders because it's a midsize company — not too big for a client to be lost in a corporate shuffle and not too small so that it can provide global support; it provides one-stop BI shopping; and it can help clients reduce dependency on a single software stack vendor.

Although Information Builders' owners publicly state that they have no immediate plans to sell the business, dealing with an independent vendor always carries a potential risk of an acquisition. Other concerns include being late to the market with BI tools that can be procured and operated with little to no involvement of AD&D pros, like full desktop and cloud-based applications (partially addressed by cloud-based InfoDiscovery).

- **Oracle's OBIEE and BI Apps offer plug-and-play enterprise-grade BI for ERP and CRM.** The common metadata layer shared by Oracle BI Enterprise Edition (OBIEE), Oracle BI Applications, and Fusion versions of Oracle ERP and CRM applications — an industry-unique feature — enables plug-and-play BI deployment, a truly unique and differentiated capability. Additional differentiated BI offerings from Oracle include the recently released Big Data Discovery product and an all-in-one BI appliance (engineered system, according to Oracle's lingo). Concerns include a lack of desktop self-service BI tools and few referenceable customers using OBIEE in heterogeneous non-Oracle environments (although Forrester is beginning to see more OBIEE and Endeca deals in non-Oracle-centric enterprises).

- **OpenText Actuate differentiates by scaling to millions of reports and users.** Regardless of the recent acquisition of Actuate by OpenText, massive scalability — interactive reporting applications producing output consumed by millions, not just thousands, of users — continues to be Actuate's sweet spot. Its top use cases involve distributing complex, interactive online statements to customers of large financial services institutions. The Eclipse Foundation's BIRT, the basis of Actuate's platform, is used by more than 3 million developers and is open source, so it lends itself nicely to embedded BI and try-before-you-buy use cases. Concerns include potential postmerger integration challenges, lack of significant progress to integrate Actuate iHub with BIRT Analytics, and Actuate's high reliance on a largely disappearing network of partners, many of which have been acquired, for architectural components like ETL, DQ, and MDM.

- **MicroStrategy's integrated architecture delivers seamless desktop, server, cloud, and mobile BI.** MicroStrategy's purely organic growth resulted in a single seamlessly integrated BI platform. Its clients often find that the reusability of all objects and the relational OLAP engine drill-anywhere capability allow them to achieve a lower long-term total cost of ownership. Forrester clients often choose MicroStrategy because it's a midsize company — not too big for a client to be lost in a corporate shuffle and not too small so that it can provide global support; it provides only BI products, so its resources can be dedicated to provide best-of-breed BI platforms and not spend time on product-to-product integration; and it can help clients reduce single software stack vendor dependency.

  As MicroStrategy is one of the few remaining BI pure-play vendors, there's always a potential risk of an acquisition. Other concerns include MicroStrategy high reliance on a largely disappearing network of partners, many of which have been acquired, for architectural components like ETL, DQ, and MDM.

Strong Performers

- **Tableau Software continues to disrupt the BI market with highly intuitive data visualization.** Building effective data visualization requires much more than just technology. Very few business analysts have a background in data visualization best practices to answer questions like: Is a data set best visualized using a scatterplot or a bar graph? How many different colors should a single graph use? Can we put two graphs with different scales next to each other on a single dashboard? Tableau can answer these and many other questions about best practices based on the psychology of human visual perception. Its graphical user interface and library of white papers clearly show that this is Tableau's specialty. Forrester clients often choose Tableau because they perceive the vendor as a thought and market leader in data visualization and because it does not carry a legacy of earlier-generation technology-centric architecture/philosophy.

  While Tableau supports most enterprise BI use cases, such as analytics, data visualization, dashboards, and data exploration, it does not provide scalable, mass-generated pixel-perfect reporting functionality — so customers often deploy Tableau in addition to, not instead of, a broader enterprise BI platform from another vendor. Also, large enterprise BI features are still in the early stages of development, though in recent releases Tableau has made huge progress in scalability. An additional potential concern stems from Tableau's complete reliance on a largely disappearing network of partners, many of which have been acquired, for architectural components like ETL, DQ, and MDM.

- **TIBCO Software excels in advanced data visualization and now offers a full open source BI stack.** TIBCO Analytics is now a combination of two separate products: Spotfire for self-service analytics and data visualization, and Jaspersoft (acquired in 2014) for a full open source BI software stack. Forrester often sees clients choose TIBCO Spotfire because of its native in-memory architecture; operational BI capabilities via tight integration with streaming data, process workflows, and rules; as well as integrated advanced analytics. Forrester clients also choose Jaspersoft for the low-cost options of the open source platform, which also lends itself nicely to an embedded BI use case.

  Concerns include potential postmerger integration challenges and a lack of more progress to integrate Jaspersoft and Spotfire. (As of the writing of this report, the integration between the two products was limited to embedding Spotfire-based dashboards into Jaspersoft reports and using Spotfire in-memory models as a data source for Jaspersoft reports.)

- **Qlik continues to be a top choice for self-service data exploration.** Data visualization is a hot buzzword these days, but it's no panacea. Most data visualization tools rely on underlying relational or multidimensional data models, limiting them to answering questions prebuilt into the data models. QlikView and Qlik Sense products break through such barriers with associative data architecture that exposes any-to-any relationships between entities and attributes. Business users can explore these relationships and uncover previously unknown information, just by

typing in a few characters, words, or sentences (in addition to the standard point-and-click operations). Forrester clients often choose Qlik because they view Qlik as a thought and market leader in associative in-memory engine, and because it provides only BI products, so its resources can be dedicated to provide best-of-breed BI platforms. Qlik has recently closed one of the gaps in its BI portfolio with an acquisition of the NPrinting product from Vizubi, which can now be used for advanced QlikView report production, scheduling, and distribution.

Potential concerns include an ambiguous choice clients now face between the two Qlik products, complicated by the lack of product integration and interoperability beyond sharing data access, data models and expression scripts. Also, large enterprise BI features are still being developed and introduced, though in recent releases Qlik has made huge progress in scalability. Qlik is also quite late to the cloud BI market: QlikView and Qlik Sense can be deployed in any public cloud (like Amazon) or private cloud in a single-client mode, and a native multitenant cloud version of Qlik Sense is still in beta as of the writing of this research.

SUPPLEMENTAL MATERIAL

Online Resource

The online version of Figure 3 is an Excel-based vendor comparison tool that provides detailed product evaluations and customizable rankings.

Data Sources Used In This Forrester Wave

Forrester used a combination of three data sources to assess the strengths and weaknesses of each solution:

- **Vendor surveys.** Forrester surveyed vendors on their capabilities as they relate to the evaluation criteria. Once we analyzed the completed vendor surveys, we conducted vendor calls where necessary to gather details of vendor qualifications.

- **Product demos.** We asked vendors to conduct demonstrations of their product's functionality. We used findings from these product demos to validate details of each vendor's product capabilities.

- **Customer reference surveys.** To validate product and vendor qualifications, Forrester also fielded a reference survey with 59 customers of the vendors participating in the evaluation.

The Forrester Wave Methodology

We conduct primary research to develop a list of vendors that meet our criteria to be evaluated in this market. From that initial pool of vendors, we then narrow our final list. We choose these vendors based on: 1) product fit; 2) customer success; and 3) Forrester client demand. We eliminate vendors that have limited customer references and products that don't fit the scope of our evaluation.

After examining past research, user need assessments, and vendor and expert interviews, we develop the initial evaluation criteria. To evaluate the vendors and their products against our set of criteria, we gather details of product qualifications through a combination of lab evaluations, questionnaires, demos, and/or discussions with client references. We send evaluations to the vendors for their review, and we adjust the evaluations to provide the most accurate view of vendor offerings and strategies.

We set default weightings to reflect our analysis of the needs of large user companies — and/or other scenarios as outlined in the Forrester Wave document — and then score the vendors based on a clearly defined scale. These default weightings are intended only as a starting point, and we encourage readers to adapt the weightings to fit their individual needs through the Excel-based tool. The final scores generate the graphical depiction of the market based on current offering, strategy, and market presence. Forrester intends to update vendor evaluations regularly as product capabilities and vendor strategies evolve. For more information on the methodology that every Forrester Wave follows, go to http://www.forrester.com/marketing/policies/forrester-wave-methodology.html.

Integrity Policy

All of Forrester's research, including Forrester Waves, is conducted according to our Integrity Policy. For more information, go to http://www.forrester.com/marketing/policies/integrity-policy.html.

Methodology

Forrester's Business Technographics® Global Data And Analytics Survey, 2014, was fielded to 1,658 business and technology decision-makers located in Australia, Brazil, Canada, China, France, Germany, India, New Zealand, the UK, and the US from SMB and enterprise companies with 100 or more employees. This survey is part of Forrester's Business Technographics and was fielded from January 2014 to March 2014. ResearchNow fielded this survey on behalf of Forrester. Survey respondent incentives include points redeemable for gift certificates. We have provided exact sample sizes in this report on a question-by-question basis.

Each calendar year, Forrester's Business Technographics fields business-to-business technology studies in 10 countries spanning North America, Latin America, Europe, and Asia Pacific. For quality control, we carefully screen respondents according to job title and function. Forrester's 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. Additionally, we set quotas for company size (number of employees) and industry as a means of controlling the data distribution and establishing alignment with IT spend calculated by Forrester analysts. Business Technographics uses only superior data sources and advanced data-cleaning techniques to ensure the highest data quality.

ENDNOTES

[1] Source: Forrester's Business Technographics® Global Data And Analytics Survey, 2014.

[2] In Forrester's 45-criteria evaluation of salesforce.com (SFDC) implementation services providers, we identified the 10 most significant SFDC implementation partners in the category and researched, analyzed, and scored them. This report details our findings about how well each vendor fulfills our criteria and where they stand in relation to each other to help services sourcing professionals select the right partner for their SFDC projects. For more information, see the June 18, 2013, "The Forrester Wave™: Salesforce.com Implementation Services, Q2 2013" report.

[3] Many BI professionals spend countless hours and resources navigating the complex landscape, rationalizing, shortlisting, and selecting BI vendors. Application development and delivery professionals should not reinvent the wheel but rather leverage the BI vendor categorization and shortlisting methodology regarding the tools and technology in this report to act and speed through the process of shortlisting BI vendors that best fit your organization's requirements, environment, and culture. For more information, see the May 23, 2014, "Forrester's 10-Step Methodology For Shortlisting Business Intelligence Vendors" report.

[4] In a dizzying 1-2-3 succession, three leading BI vendors whose software and business models are to various degrees based on open source have been acquired within the last nine months: Jaspersoft by TIBCO, Actuate by OpenText, and now, on February 10, Hitachi Data Systems (HDS) announced its intent to acquire Pentaho. Application development and delivery (AD&D) pros working on BI initiatives should use the recommendations provided in this report on when to consider open source versus commercial BI platforms in the light of the recent acquisitions. For more information, see the February 13, 2015, "Brief: It's Not Your Grandfather's Open Source BI Market Any Longer" report.

[5] In Forrester's 30-criteria evaluation of BI services providers, we identified the 12 most significant services providers in the category and researched, analyzed, and scored them. This report details our findings about how well each vendor and their respective BI service offerings fulfill our evaluation criteria and where they stand in relation to each other to help sourcing and vendor management professionals and their companies select the right service partner for their BI initiatives. For more information, see the October 16, 2014, "The Forrester Wave™: BI Service Providers, Q4 2014" report.

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