For: Application
Development
& Delivery
Professionals

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

by Boris Evelson, July 3, 2014

## KEY TAKEAWAYS

### BI Buyers Have Plenty of Choices With Eight Leading Vendors And Seven Strong Competitors

Forrester's research uncovered a market in which SAS, Tibco Software, Information Builders, Microsoft, MicroStrategy, SAP, Qlik, and Tableau Software lead the pack. Actuate, Birst, Panorama Software, Pentaho, GoodData, Tibco Jaspersoft, and IBM offer competitive options. Oracle lags behind.

### The Agile BI Market Is Growing As AD&D Pros Focus On Supporting Business Agility

The Agile BI market is growing because more AD&D professionals see Agile BI platforms as a way to address their top challenges. This market growth is in large part due to the fact that AD&D pros increasingly trust Agile BI providers to act as strategic partners, advising them on top business, data, and information agility decisions.

### Business User BI Self-Service Is The Key Differentiator In The Agile BI Market

As enterprise BI driven by technology management becomes commoditized, features that empower business users to be self-sufficient will differentiate software providers. Vendors that can deliver business user self-service features without sacrificing essential enterprise capabilities will position themselves to deliver the best BI platforms to their customers.

### 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™: Agile Business Intelligence Platforms, Q3 2014

## The 16 Providers That Matter Most And How They Stack Up

by Boris Evelson
with Holger Kisker, Ph.D., Martha Bennett, and Nasry Angel

## WHY READ THIS REPORT

In Forrester's 15-criteria evaluation of Agile business intelligence (BI) vendors, we identified the 16 most significant software providers — Actuate, Birst, GoodData, IBM, Information Builders, Microsoft, MicroStrategy, Oracle, Panorama Software, Pentaho, Qlik, SAP, SAS, Tableau Software, Tibco Jaspersoft, and Tibco Software — 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 AD&D professionals select the right platform for their Agile BI requirements.

## Table Of Contents

## Notes & Resources

Forrester conducted demos, briefings, and customer surveys in April, 2014.

## Related Research Documents

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

The Forecast For Business Intelligence Is Partially Cloudy
May 15, 2014

How To Select A Mobile BI Solution
February 19, 2014

The Forrester Wave™: Enterprise Business Intelligence Platforms, Q4 2013
December 18, 2013

## AGILE BI IS A KEY ELEMENT IN THE BUSINESS AGILITY EQUATION

The battle over customer versus internal business processes requirements and priorities has been fought — and the internal processes lost. Game over. Customers are now empowered with mobile devices and ubiquitous cloud-based all-but-unlimited access to information about products, services, and prices. Customer stickiness is extremely difficult to achieve as customers demand instant gratification of their ever changing needs, tastes, and requirements, while switching vendors is just a matter of clicking a few keys on a mobile phone. Forrester calls this phenomenon the age of the customer. The age of the customer elevates business and technology priorities to achieve:

- **Business agility.** Forrester consistently finds one common thread running through the profile of successful organizations — the ability to manage change. In the age of the customer, business agility often equals the ability to adopt, react, and succeed in the midst of an unending fountain of customer driven requirements. Forrester sees agile organizations making decisions differently by embracing a new, more grass-roots-based management approach. Employees down in the trenches, in individual business units, are the ones who are in close touch with customer problems, market shifts, and process inefficiencies. These workers are often in the best position to understand challenges and opportunities and to make decisions to improve the business. It is only when responses to change come from within, from these highly aware and empowered employees, that enterprises become agile, competitive, and successful.

- **Information agility.** Agile enterprises must gather customer and market knowledge and rapidly incorporate it into decisions. In order to support and promote business agility, enterprise knowledge workers need to be empowered with easy access to agile, flexible, and responsive enterprise business intelligence tools and applications. However, while organizations of all sizes made significant headway over the last several decades in their enterprise BI accomplishments, many organizations still struggle with making their data and information management, BI, and analytics environments agile.

Alas, enterprise grade BI platforms are often anything but agile. Indeed, all modern enterprise BI platforms are scalable and robust, support and promote a single version of the truth, and minimize operational risk. However, these capabilities carry a hefty price tag of complexity, rigidity, and inflexibility, and as a result they are slow to react to constantly changing customer and business requirements. This lack of BI agility promotes an unfortunate side effect — proliferation of shadow IT, "homegrown" BI applications (see Figure 1).

**Figure 1** Approximately Half Of All Enterprise BI Applications Are "Homegrown"

**"How would you describe the BI applications or tools that you use? Are they primarily company-issued, or are they 'homegrown'?"**
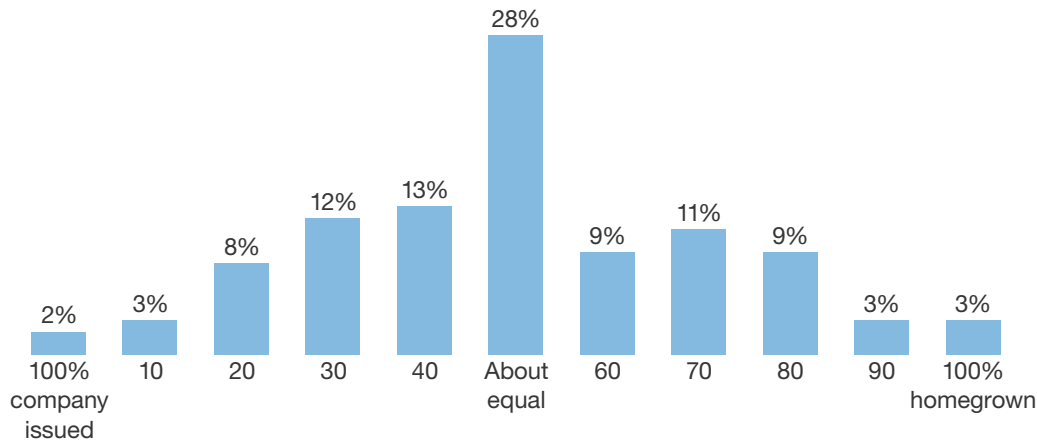
Base: 249 North American business decision-makers

Source: Forrester's Business Technographics Global Data And Analytics Survey, 2014

115485                                                    Source: Forrester Research, Inc.

## EVERYTHING YOU WANTED TO KNOW ABOUT AGILE BI BUT WERE AFRAID TO ASK

A word of caution: Do not use the term Agile BI synonymously with the terms intuitive and user friendly — two hugely overused and hyped terms in BI. Unfortunately, these terms are highly subjective and qualitative. Point-and-click, drag-and-drop GUIs may be intuitive to an experienced professional with a background in command line interfaces, but not so obvious to a millennial who grew up with a thumb-typing mobile phone UI. And while menu- and prompt-driven instrumented (radio buttons, dialog boxes, etc.) applications may seem user friendly to left-brained people (who think in numbers and lists), right-brained office workers (who see the world in pictures and associations) may prefer an application driven by icons, visual associations, and artistic infographics.

While mainly academic discussion of these terms may be thought-provoking, it's not really actionable. Forrester takes a more pragmatic and practical approach and describes Agile BI in highly objective and quantifiable terms, which specifically address many of the shortcomings and limitations (rigid and restrictive data models, too much reliance on technology management professionals, and many others) of the traditional enterprise BI platforms, including platform features such as (see Figure 2):

- **IT-enabled BI self-service.** What are the BI platform features that enable technology professionals to empower business user self-service capabilities? These features include cascading parameters and nested prompts, collaboration, data virtualization and drill anywhere, parameterized reporting, prompt for columns, migration of user-sandbox-generated BI content to production, and write back.

- **BI automation.** Does the BI platform support various self-service BI automation processes that allow business users to do more with less? Beyond commoditized and non-differentiated features like report batches, report scheduling, etc., these features should include such capabilities as auto information discovery, actionable BI, contextual BI, suggestive BI, and managing a full BI life cycle with a single integrated development environment (IDE).

Additionally, Agile BI requires capabilities that empower business users to be self-sufficient in their BI environment with little or no involvement from technology professionals. These capabilities are typically supported by BI platform features such as:
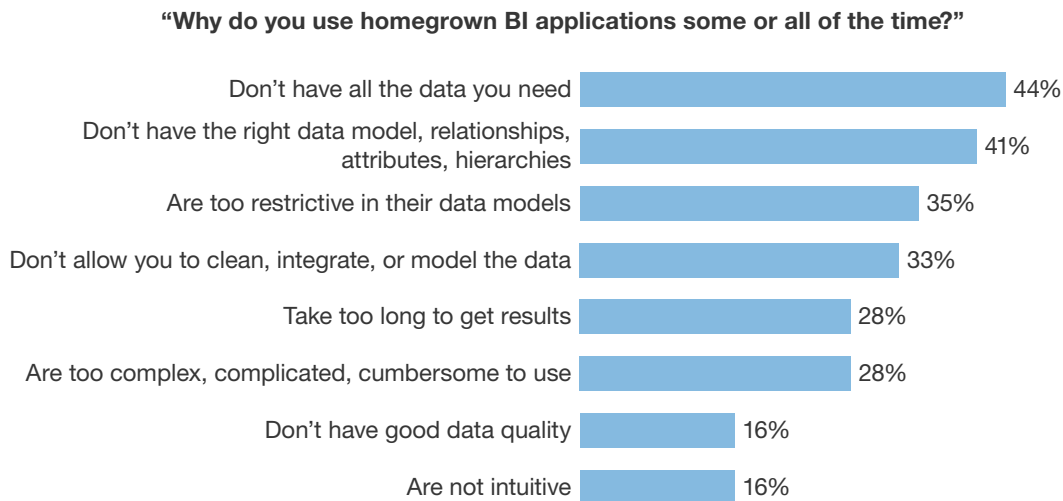
- **Self-provisioning applications and data.** How efficiently can business users connect to new data sources and provision applications, data, and resources? This includes such capabilities as application sandboxes, data upload, data virtualization and drill anywhere, elasticity, semantic layer, and mobile delivery.

- **Data integration, mashups, and wrangling.** How efficiently and effectively can business users perform various data transformation tasks? This includes capabilities such as automodeling, calculated measures, data mashups, data wrangling, light weight data cleanup functions, and write back.

- **Effective user interfaces.** How easily can business users create their own reports and dashboards and run data exploration and other relevant tasks? Going beyond highly commoditized and nondifferentiated graphical user interface (GUI) features like point-and-click and drag-and-drop, this criteria includes capabilities such as collaboration, data exploration and discovery, faceted navigation, guided navigation, information workplace integration, natural language processing (NLP), and search like GUI.

Last but not least, Agile BI requires rich advanced data visualization (ADV) capabilities. Older definitions of ADV (versus static data graphs and charts) included visual querying (without writing SQL code), dynamic visualizations (where visualizations dynamically changed based on query results), and several others. These features, however, are table stakes in all modern BI platforms and no longer differentiate one vendor from another. Today we look for differentiated ADV capabilities such as:

- **Richness of ADV content.** What are the BI platform ADV capabilities in terms of richness of data visualization content like graphs and charts that are available out of the box? Includes such capabilities as cockpit gauges, custom charts and maps, geospatial representations, and infographics.

- **Data visualization effectiveness.** What are the BI platform ADV capabilities in terms of allowing business users to efficiently and effectively visualize data sets and act on the results? This includes capabilities such as animations, autosuggestions, modes of interaction, multiple dimensions, and storyboarding. Autosuggestions is a top differentiator in ADV these days. Look for capabilities to help the user select the best possible visualization or chart type. Can the system analyze the input data, recognize the pattern and key field, and automatically propose a 'best practice' visualization for an individual data set?

Use Forrester's Agile Self-Assessment tool for a more in-depth exploration on the specific evaluation criteria.[1]

*Figure 2* Reasons Business Users Resort To Homegrown BI Apps

**"Why do you use homegrown BI applications some or all of the time?"**

| | |
|---|---|
| Don't have all the data you need | 44% |
| Don't have the right data model, relationships, attributes, hierarchies | 41% |
| Are too restrictive in their data models | 35% |
| Don't allow you to clean, integrate, or model the data | 33% |
| Take too long to get results | 28% |
| Are too complex, complicated, cumbersome to use | 28% |
| Don't have good data quality | 16% |
| Are not intuitive | 16% |

Base: 237 North American business decision-makers using homegrown BI apps

Note: "Other" responses not shown
Source: Forrester's Business Technographics Global Data And Analytics Survey, 2014

115485                                                                     Source: Forrester Research, Inc.

## AGILE BI PLATFORMS EVALUATION OVERVIEW

To assess the state of the Agile BI platforms market and see how the vendors stack up against each other, Forrester evaluated the strengths and weaknesses of top Agile BI platforms 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 15 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 outlining its key capabilities and surveyed a total of 112 vendor 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.

- **Market presence.** In this particular research, we only considered vendor BI revenues as a measure of global market presence. For a more comprehensive market presence analysis, please refer to our latest Enterprise BI Platform Forrester Wave where 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.[2]

## Evaluated Vendors Have What It Takes To Support Complex Agile BI Requirements

Forrester included 16 vendors in the assessment: Actuate, Birst, GoodData, IBM, Information Builders, Microsoft, MicroStrategy, Oracle, Panorama Software, Pentaho, Qlik, SAP, SAS, Tableau Software, Tibco Jaspersoft, and Tibco Software. Each of these vendors has (see Figure 3):

- Platforms that can query DBMS using SQL and MDX.

- A product that can analyze data from multiple sources, not just a single ERP app.

- Customers that use these products for more than one business domain (for example, not just marketing analytics).

- Frequent interest from Forrester clients in the form of questions about or mentions of a vendor in the context of inquiries about BI.

- Status as a top 16 software vendor by BI revenue and market presence as indicated by interest from Forrester clients.

- A product that is generally available by May 15, 2014.

The market is by no means limited to these top 16 vendors. Forrester encourages AD&D pros to consider a much longer list of 40 vendors and use Forrester recommended methodology to short list them before using this Forrester Wave to narrow down the choices even further.[3]

*Figure 3* Evaluated Vendors: Product Information And Selection Criteria

| Vendor | Product evaluated | Product version evaluated |
|--------|-------------------|---------------------------|
| Actuate | BIRT iHub, BIRT onDemand, BIRT Analytics | iHub 3, BA 4.3 |
| Birst | Birst Enterprise Edition | Release 5.10 |
| GoodData | GoodData | Release 101 |
| IBM | Cognos BI | 10.2.1 |
| Information Builders | 8 | 8 |
| Microsoft | • Excel<br>• SQL Server<br>• SharePoint<br>• Power BI for Office | 2013<br>2014<br>2013<br>365 |
| MicroStrategy | MicroStrategy Analytics Platform | 9.4.1 |
| Oracle | Oracle Business Intelligence Enterprise Edition | 11.1.1.7.0 |
| Panorama Software | Necto | 14 |
| Pentaho | Business Analytics | 5.1 |
| Qlik | QlikView | 11.2 |
| SAP | • SAP Lumira<br>• SAP BusinessObjects Explorer | 1.16<br>4.1 |
| SAS | • SAS Visual Analytics<br>• SAS Enterprise BI Server<br>• SAS Office Analytics | 6.4<br>4.4<br>6.1 |
| Tableau Software | Tableau Software | 8.2 |
| Tibco Jaspersoft | Jaspersoft BI Enterprise Edition | 5.6 |
| Tibco Software | Spotfire | 6.5 |

Source: Forrester Research, Inc.

*Figure 3* Evaluated Vendors: Product Information And Selection Criteria (Cont.)

**Vendor selection criteria**

| |
|---|
| Platforms that can query DBMS using SQL and MDX |
| The product can analyze data from multiple sources, not just a single ERP app. |
| Customers use these products for more than one business domain (for example, not just marketing analytics). |
| Frequent interest from Forrester clients in the form of questions about or mentions of a vendor in the context of inquiries about BI |
| Top 16 software vendors by BI revenue and market presence as indicated by interest from Forrester clients |
| All products needed to be generally available by May 15, 2014. |

Source: Forrester Research, Inc.

## BI IS A BUYER'S MARKET THAT OFFERS PLENTY OF CHOICES

The evaluation uncovered a market in which (see Figure 4):

■ **Agile BI buyers are in great hands with eight market Leaders.** SAS, Tibco Software, Information Builders, Microsoft, MicroStrategy, SAP, Qlik, and Tableau Software lead the Agile BI pack. While many Agile BI platform features are becoming commoditized, it's not the individual capabilities that differentiate the Leaders, but rather the completeness, comprehensiveness, and integration of the entire suite of agile capabilities that stands the Leaders apart from the rest of the vendors in this category. While many of the Leaders appear to be closely grouped, each of them differentiates itself in terms of specific individual capabilities. For example, in this research, Forrester found that data integration (or data wrangling), BI automation, and ADV content functionality appear to be evenly supported by all of the vendors. However, BI self-service features that technology professionals can enable for the business users, application and data provisioning, effectiveness of the UI, and ADV features vary significantly among the vendors. Our lab exercise also found significant discrepancies in the way vendors achieved the exercise objectives and the time it took them to complete the process. Forrester recommends that AD&D pros map and weigh their requirements against the individual vendor scores before shortlisting vendors simply because they ended up in the Leaders category.

■ **Actuate, Birst, Panorama Software, Pentaho, GoodData, Tibco Jaspersoft, and IBM offer competitive options.** Vendors in the Leaders category can by no means rest easy: the Strong Performers are hot on their heels, especially some of the newcomers in the cloud SaaS BI category. In many specialized situations, these vendors can even outperform the Leaders. Some of the Strong Performers outpaced Leaders in the lab exercise and received higher scores in

customer feedback. Provisioning of applications and data, data integration, BI automation, and ADV content and effectiveness is where Forrester finds the least gaps between the Leaders and the Strong Performers.

- **Oracle lacks some Agile BI features; Endeca and upcoming cloud BI will close the gaps.** Oracle OBIEE is a powerful enterprise reporting platform, with multiple, scalable components that address all of the advanced BI capabilities such as pixel perfect reporting, ad hoc querying, interactive dashboards, and ADV. Data exploration is available in a separately available Endeca offering. However, all of these features still require significant resources by technology professionals to install and setup the environment. For example, OBIEE still lacks a desktop or a cloud-based business user sandbox, where knowledge workers can provision their own BI tools, connect to new data sources, and manipulate data beyond what the underlying DBMS or BI Server (OBIEE's ROLAP engine) data and semantic models allow. This deployment and provisioning process will get simplified with the upcoming Oracle BI cloud service that makes Oracle's BI technology available as a subscription-based cloud service, along with a version of the Oracle DB cloud service.

*Figure 4* Forrester Wave™: Agile Business Intelligence, Q2 '14
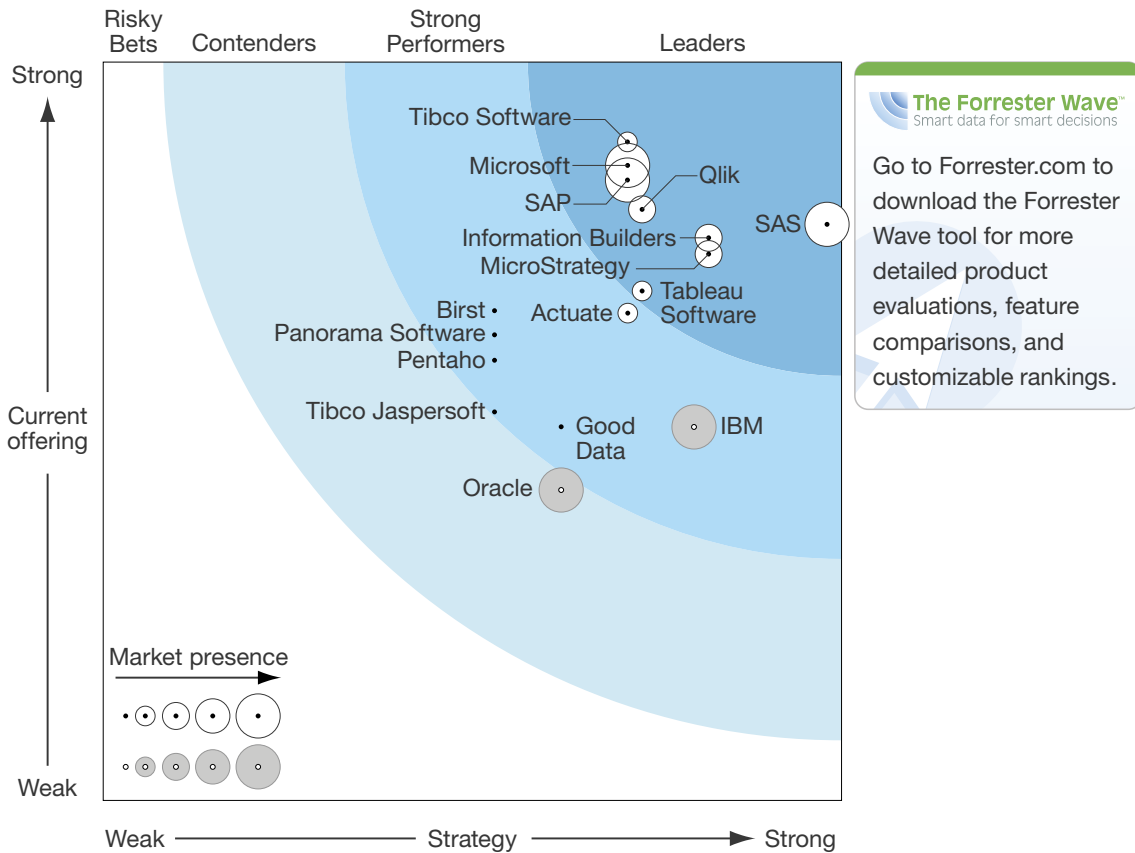
*Figure 4*: Forrester Wave™: Agile Business Intelligence, Q2 '14 (Cont.)

| | Forrester's Weighting | Actuate | Birst | GoodData | Information Builders | Tibco Jaspersoft | Microsoft | MicroStrategy | Panorama Software | Pentaho | Qlik | SAP | SAS | Tableau Software | Tibco Software |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CURRENT OFFERING | 50% | 3.30 | 3.32 | 2.53 | 3.81 | 2.63 | 4.30 | 3.70 | 3.15 | 2.98 | 4.00 | 4.20 | 3.90 | 3.45 | 4.46 |
| IT-enabled end user self-service | 5% | 4.00 | 5.00 | 3.00 | 5.00 | 2.00 | 5.00 | 5.00 | 4.00 | 3.00 | 5.00 | 5.00 | 5.00 | 5.00 | 5.00 |
| End user self-service — provisioning | 15% | 5.00 | 4.00 | 2.00 | 4.00 | 2.00 | 5.00 | 4.00 | 3.00 | 4.00 | 5.00 | 4.00 | 5.00 | 3.00 | 5.00 |
| End user self-service — data integration | 10% | 3.00 | 4.00 | 3.00 | 5.00 | 4.00 | 4.00 | 4.00 | 3.00 | 4.00 | 5.00 | 5.00 | 4.00 | 3.00 | 4.00 |
| End user self-service — user interface | 20% | 2.00 | 2.00 | 2.00 | 4.00 | 2.00 | 5.00 | 3.00 | 3.00 | 2.00 | 4.00 | 4.00 | 3.00 | 3.00 | 5.00 |
| BI automation | 15% | 2.00 | 2.00 | 2.00 | 2.00 | 2.00 | 3.00 | 2.00 | 2.00 | 2.00 | 2.00 | 4.00 | 3.00 | 2.00 | 4.00 |
| Advanced data visualization content | 5% | 3.00 | 4.00 | 3.00 | 3.00 | 3.00 | 3.00 | 3.00 | 4.00 | 3.00 | 3.00 | 4.00 | 3.00 | 4.00 | 3.00 |
| Advanced data visualization functionality | 15% | 5.00 | 4.00 | 3.00 | 4.00 | 3.00 | 5.00 | 5.00 | 3.00 | 3.00 | 4.00 | 4.00 | 5.00 | 5.00 | 4.00 |
| Agile BI — clicks to answer | 5% | 1.00 | 2.00 | 3.00 | 3.00 | 2.00 | 3.00 | 3.00 | 3.00 | 2.00 | 3.00 | 5.00 | 3.00 | 2.00 | 5.00 |
| Agile BI — client feedback | 4% | 4.00 | 5.00 | 3.00 | 4.00 | 4.00 | 4.00 | 5.00 | 5.00 | 4.00 | 5.00 | 4.00 | 4.00 | 5.00 | 4.00 |
| End user self-service — client feedback | 3% | 4.00 | 4.00 | 3.00 | 5.00 | 5.00 | 4.00 | 5.00 | 5.00 | 5.00 | 5.00 | 4.00 | 4.00 | 5.00 | 5.00 |
| ADV — client feedback | 3% | 4.00 | 5.00 | 4.00 | 5.00 | 4.00 | 4.00 | 5.00 | 5.00 | 4.00 | 5.00 | 4.00 | 4.00 | 5.00 | 5.00 |
| | | | | | | | | | | | | | | | |
| STRATEGY | 50% | 3.55 | 2.65 | 3.10 | 4.10 | 2.65 | 3.55 | 4.10 | 2.65 | 2.65 | 3.65 | 3.55 | 4.90 | 3.65 | 3.55 |
| Commitment — R&D spending/size of R&D team | 45% | 3.00 | 1.00 | 2.00 | 3.00 | 2.00 | 2.00 | 4.00 | 2.00 | 2.00 | 3.00 | 2.00 | 5.00 | 3.00 | 3.00 |
| Product direction | 45% | 4.00 | 4.00 | 4.00 | 5.00 | 3.00 | 5.00 | 4.00 | 3.00 | 3.00 | 4.00 | 5.00 | 5.00 | 4.00 | 4.00 |
| Corporate and product vision customer feedback | 10% | 4.00 | 4.00 | 4.00 | 5.00 | 4.00 | 4.00 | 5.00 | 4.00 | 4.00 | 5.00 | 4.00 | 4.00 | 5.00 | 4.00 |
| | | | | | | | | | | | | | | | |
| MARKET PRESENCE | 0% | 2.00 | 1.00 | 1.00 | 3.00 | 1.00 | 5.00 | 3.00 | 1.00 | 1.00 | 3.00 | 5.00 | 5.00 | 2.00 | 2.00 |
| Company financials | 100% | 2.00 | 1.00 | 1.00 | 3.00 | 1.00 | 5.00 | 3.00 | 1.00 | 1.00 | 3.00 | 5.00 | 5.00 | 2.00 | 2.00 |

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

Source: Forrester Research, Inc.

## VENDOR PROFILES

### Leaders

■ **SAS, a known leader in enterprise BI and advanced analytics, now leads the pack in Agile BI.** SAS products evaluated in this research — Visual Analytics, Enterprise BI Server, SAS Office Analytics — received top scores for the features technology professionals need to enable business user BI self-service, business user capabilities to provision their own BI applications and data, as well as the effectiveness of its ADV functionality. Forrester also scored SAS highly for the business user capabilities to perform data integration tasks within the BI tool. SAS received high client feedback scores for its agile, business user self-service and ADV functionality. Clients also gave SAS a high score for its product vision.

In addition to Agile BI, SAS's traditional strength is being a one-stop shop for all BI capabilities with little to no reliance on partners. SAS has grown mostly organically, so its architecture is more seamlessly integrated and allows for more reuse of components than competition, which grew by acquisitions. SAS still needs to build up its capabilities in the increasingly popular data exploration and discovery categories as well as cloud-based SaaS offerings. Because SAS's strength and legacy are large enterprise BI applications and entry-level price is not insignificant, SAS may be considered overkill for small workgroup or departmental solutions. Even though SAS is a large vendor with a global network of partners, large global enterprise buyers should still perform due diligence on the availability of local SAS BI resources.

■ **Tibco Spotfire maintains its position and builds on its strengths as a leader in Agile BI.** Tibco's product evaluated in this research — Spotfire — received top scores for the features technology professionals need to enable business user BI self-service, business user capabilities to provision their own BI applications and data, as well as effectiveness of the UI. Additionally, Tibco Spotfire received a top score in the Forrester Wave lab exercise for the time and the number of clicks it took to finish the assigned process. Forrester also scored Tibco Spotfire highly for the business user capabilities to perform data integration tasks within the BI tool, BI automation, and effectiveness of its ADV functionality. Tibco Spotfire received top client feedback scores for its business user self-serve and ADV functionality, as well as a high score for its agile BI. Clients also gave Tibco Spotfire a high score for its product vision.

In addition to Agile BI, Tibco Spotfire's strategy is to combine data exploration, data visualization, and predictive and real-time analytics in one well-integrated package. Forrester clients often select Spotfire as a platform of choice for data exploration and visualization even when they have another enterprise BI platform with similar capabilities. With its integrated desktop and cloud-based SaaS offerings, Spotfire buyers can start small and scale quickly. Buyers should be aware that Spotfire strongly relies on a network of partners for several components of a full BI architectural stack. Even though Spotfire is part of Tibco with a global network of partners, large global enterprise buyers should still perform due diligence on the availability of local Spotfire resources.

- **Information Builders moves its leading enterprise BI platform front and center of the Agile BI market.** Information Builders' product evaluated in this research — WebFocus — received top scores for the features technology professionals need to enable business user BI self-service, as well as business user capabilities to perform data integration tasks within the BI tool. Forrester also scored Information Builders highly for the business user capabilities to provision applications and data, and for the effectiveness of its UI and ADV functionality. Information Builders received top client feedback scores for its business user self-serve and ADV functionality, as well as a high score for its Agile BI. Clients also gave Information Builders a top score for its product vision.

  In addition to Agile BI, Information Builders' traditional strength is being a one-stop shop for all BI capabilities with little to no reliance on partners. Information Builders is also just the right size: not too big for customers to be lost in a large corporate tech support shuffle but big enough that there's no concern about vendor viability. Information Builders still needs to build up its capabilities in the increasingly popular data exploration and discovery categories, as well as cloud-based SaaS offerings. Because Information Builders' strength and legacy are large enterprise BI applications, WebFocus may be considered overkill for small workgroup or departmental solutions. Even though Information Builders is a relatively large vendor with a global network of partners, large global enterprise buyers should still perform due diligence on the availability of local WebFocus resources.

- **Microsoft elevates its leading Agile BI capabilities to the cloud with Power BI.** Microsoft BI products evaluated in this research — Power BI for Office, SQL Server, SharePoint — received top scores for the features technology professionals need to enable business user BI self-service, business user capabilities to provision their own BI applications and data, as well as effectiveness of the UI and its ADV functionality. Forrester also scored Microsoft highly for the business user capabilities to perform data integration tasks within the BI tool. Microsoft received high client feedback scores for its agile, business user self-service and ADV functionality. Clients also gave Microsoft BI a high score for its product vision.

  In addition to its Agile BI offerings, with every new release of its BI platform, Microsoft makes it more difficult for large enterprises that have already deployed Microsoft Office, SharePoint, and SQL Server not to consider Microsoft BI as its enterprise BI platform. Microsoft BI does require a full Microsoft software stack, so organizations that are not looking to deploy SharePoint based on other requirements should not list Microsoft BI or look to the cloud-based Power BI. Buyers should be aware that Microsoft only provides direct presales/post-sales support to a handful of its top accounts; all other organizations should first secure a trusted relationship with a Microsoft implementation partner before committing to Microsoft BI.

- **MicroStrategy leading desktop and cloud Agile BI tools are embedded in its BI platform.** MicroStrategy's product evaluated in this research — MicroStrategy Analytics Platform — received top scores for the features technology professionals need to enable business user BI self-service, as well as for the effectiveness of its ADV functionality. Forrester also scored

MicroStrategy highly for the business user capabilities to provision applications and data, perform data integration tasks within the BI tool. MicroStrategy received high client feedback scores for its agile, business user self-service and ADV functionality. Clients also gave MicroStrategy a top score for its product vision.

In addition to its Agile BI offerings, MicroStrategy's traditional strengths are its organically grown architecture and a powerful ROLAP engine, which in the long term can often reduce total cost of ownership by reducing the number of reports and dashboards that need to be produced. With its integrated desktop and cloud-based SaaS offerings, MicroStrategy buyers can start small and scale quickly. MicroStrategy still needs to build up its capabilities in the increasingly popular data exploration and discovery categories. Buyers should be aware that MicroStrategy strongly relies on a network of partners for data integration and other components of a full BI architectural stack. Even though MicroStrategy is a relatively large vendor with a global network of partners, large global enterprise buyers should still perform due diligence on the availability of local MicroStrategy resources.

- **Lumira and BusinessObjects Explorer make SAP a formidable leader in Agile BI.** SAP products evaluated in this research — Lumira and BusinessObjects Explorer — received top scores for the features technology professionals need to enable business user BI self-service, as well as the business user capabilities to perform data integration tasks within the BI tool. Additionally, SAP received a top score in the Forrester Wave lab exercise for the time and the number of clicks it took to finish the assigned process. Forrester also scored SAP highly for the business user capabilities to provision applications and data, effectiveness of its UI and ADV functionality, BI automation, and ADV content. SAP received high client feedback scores for its agile, business user self-service and ADV functionality. Clients also gave SAP a high score for its product vision.

  In addition to its Agile BI offerings, SAP BusinessObjects' traditional strength is a one-stop shop for all BI capabilities with little to no reliance on partners, especially (but not limited to) when most of the data comes from SAP ERP applications. SAP is also considered a thought and market leader in the areas of in-memory and cloud SaaS BI and analytics, as well as the popular data exploration and discovery capabilities. Buyers should be aware that SAP's strategy often trumps innovation over platform integration, and as a result, while most of the SAP BI tools are best-of-breed, they are not as seamlessly integrated as competitive offerings.

- **Qlik keeps its position and builds on its fortes as a leader in Agile in-memory data exploration.** Qlik product evaluated in this research — QlikView — received top scores for the features technology professionals need to enable business user BI self-service, as well as the business user capabilities to provision applications and data, and perform data integration tasks within the BI tool. Forrester also scored Qlik highly for the effectiveness of its UI and ADV features. Qlik received top client feedback scores for its agile, business user self-service and ADV functionality. Clients also gave Qlik a top score for its product vision.

As part of its Agile BI offerings, Qlik's main differentiator is to assist business users with identifying business questions they didn't know they needed to ask or how to ask. Often synonymous with data exploration and discovery, Qlik's associative in-memory database is fine-tuned to address the real unknowns buried in enterprise data. Forrester clients often select Qlik as a platform of choice for data exploration even when they have another enterprise BI platform with similar capabilities. Buyers should be aware that Qlik's strength is in departmental and workgroup solutions because each in-memory model is standalone and needs to be managed separately (even though the acquisition of Expressor gives technology professionals more ammunition to make Qlik scale more across large organizations). Qlik also needs to build up its cloud BI SaaS capabilities. Buyers should be aware that Qlik strongly relies on a network of partners for several components of a full BI architectural stack. Even though Qlik has recently grown significantly with a global network of partners, large global enterprise buyers should still perform due diligence on the availability of local Qlik resources.

- **Tableau Software retains its position and builds on its strength as a leader in Agile ADV.** Tableau Software's product evaluated in this research received top scores for the features technology professionals need to enable business user BI self-service, as well as the effectiveness of its ADV features. Forrester also scored Tableau Software highly for the richness of its ADV content. Tableau Software received top client feedback scores for its agile, business user self-service and ADV functionality. Clients also gave Tableau Software a top score for its product vision.

  As part of its Agile BI offerings, Tableau Software's main strength is simply intuitive and easily consumable data visualizations. Forrester clients often select Tableau as a platform of choice for data visualization even when they have another enterprise BI platform with similar capabilities. Buyers should be aware that Tableau strongly relies on a network of partners for several components of a full BI architectural stack. Even though Tableau has recently grown significantly with a global network of partners, large global enterprise buyers should still perform due diligence on the availability of local Tableau resources

## Strong Performers

- **Actuate enters the Agile BI arena with BIRT Analytics.** Actuate products evaluated in this research — BIRT iHub, BIRT onDemand, and BIRT Analytics — received top scores for the features that enable business users to self-provision BI applications and data, as well as the effectiveness of its ADV features. Forrester also scored Actuate highly for the features technology professionals need to enable business user BI self-service. Actuate received high client feedback scores for its agile, business user self-service and ADV functionality. Clients also gave Actuate a high score for its product vision.

  In addition to its Agile BI offerings, Actuate's traditional strengths are massive scalability, partial leveraging of OSS community for code development and popularity within the developer community, and integration with BIRT Content Services for full life-cycle management of BI content. Actuate still needs to build up its capabilities in the growing area

of data exploration and discovery. Buyers should be aware that Actuate strongly relies on a network of partners for data integration and other components of a full BI architectural stack. Even though one can often count on the 3.5million strong OSS BIRT developer community, large global enterprise buyers should still perform due diligence on the availability of local Actuate BIRT (commercial version) resources.

■ **Birst BI is natively Agile as part of its integrated cloud SaaS-based full BI stack platform.** The Birst product evaluated in this research — Birst Enterprise Edition — received top scores for the features technology professionals need to enable business user BI self-service. Forrester also scored Birst highly for the features that enable business users to self-provision BI applications and data and perform data integration tasks within the BI tool, as well as the effectiveness of its ADV features and richness of its ADV content. Birst received top client feedback scores for its business user self-service and ADV functionality and high scores for its agile capabilities. Clients also gave Birst a high score for its product vision.

In addition to its Agile BI offerings, Birst will appeal to buyers who are looking for a single integrated end-to-end BI platform that is residing in the cloud, and therefore, taking the burden of maintenance, support, and upgrades away from enterprise technology professionals. Birst still needs to build up its capabilities in the increasingly popular data exploration, discovery, and predictive analytics categories, as well as scaling to reports with thousands of pages and hundreds of thousands of records in result sets. Relatively simple Birst based applications can be built by the business users themselves and will not require any involvement by the technical experts. But because Birst is still a relatively small vendor, large global enterprise buyers should also perform due diligence on the availability of local Birst resources in case they are looking to use Birst as a BI development PaaS.

■ **Panorama offers additional Agile BI and ADV features on top of a Microsoft BI stack.** The Panorama Software product evaluated in this research — Necto — received high scores for the features technology professionals need to enable business user BI self-service, as well as richness of its ADV content. Panorama received top client feedback scores for its agile, business user self-service and ADV functionality. Clients also gave Panorama Software a high score for its product vision.

In addition to its Agile BI offerings, Panorama is a great add-on to anyone who's committed to a Microsoft software stack, but it needs an extra "oomph" in data visualization and collaboration functionalities (although it can connect to and analyze data from any source including non-Microsoft data sources). Panorama Necto is a differentiated platform, uniquely offering a "suggestive BI" functionality that suggests best BI content based on popular usage by your peers. Panorama still needs to build up its capabilities in the growing area of data exploration, discovery, and cloud-based SaaS BI. Buyers should be aware that Panorama strongly relies on a network of partners for data integration and other components of a full BI architectural stack. Because Panorama is a relatively small vendor, buyers should perform due diligence on the availability of local Panorama resources.

- **Pentaho offers open source alternative to Agile BI.** The Pentaho product evaluated in this research — Business Analytics — received scores for the features to enable business users to self-provision BI applications and data and perform data integration tasks within the BI tool. Pentaho received top client feedback scores for its agile and ADV functionality, and a high score for BI self-service. Clients also gave Pentaho a high score for its product vision.

  In addition to its Agile BI offerings, Pentaho's traditional strengths are leveraging an OSS community for code development and popularity within the developer community. Pentaho also provides a one-stop shop for all BI capabilities with little to no reliance on partners. The Pentaho environment is still very technology-centric. It needs to do more to build up its business user self-service capabilities, especially in the increasingly popular data exploration and discovery categories. Even though one can often count on the 50-strong OSS Pentaho developer community, large global enterprise buyers should still perform due diligence on the availability of local Pentaho (commercial version) resources.

- **GoodData integrated cloud SaaS full BI stack platform is scalable and Agile.** GoodData's product evaluated in this research scored solidly across most Agile BI features. GoodData received high client feedback scores for its ADV functionality. Clients also gave GoodData a high score for its product vision.

  In addition to its Agile BI offerings, GoodData will appeal to buyers who are looking for a single integrated end-to-end BI platform that is residing in the cloud, and therefore, taking the burden of maintenance, support, and upgrades away from enterprise technology professionals. GoodData still needs to build up its capabilities in the increasingly popular data exploration, discovery, and predictive analytics categories. Also, GoodData works best with cloud data sources because even on-premises data still needs to be moved to the cloud into the GoodData environment. Relatively simple GoodData-based applications can be built by the business users themselves and will not require any involvement by the technical experts. But because GoodData is still a relatively small vendor, large global enterprise buyers should also perform due diligence on the availability of local GoodData resources in case they are looking to use GoodData as BI development PaaS.

- **Tibco Jaspersoft offers an open source alternative to Agile BI and its leading Spotfire product.** The Tibco Jaspersoft product evaluated in this research — Jaspersoft BI enterprise edition — received high scores for the features that enable business users to perform data integration tasks within the BI tool. Tibco Jaspersoft received top client feedback scores for the self-service BI, and high scores for its agile and ADV functionality. Clients also gave Tibco Jaspersoft a high score for its product vision.

  In addition to its Agile BI offerings Tibco Jaspersoft's traditional strengths are leveraging an OSS community for code development and popularity within the developer community. Jaspersoft also provides a one-stop shop for all BI capabilities with little to no reliance on partners. It is also well-positioned to ride the big data in the cloud wave with cloud-based SaaS solutions

based on Amazon Web Services (AWS) Redshift, which buyers can rent on demand by the hour. The Jaspersoft environment is still very technology-centric. It needs to do more to build up its business user self-service capabilities, especially in the increasingly popular data exploration and discovery categories. Even though one can often count on the 84-strong OSS Jaspersoft developer community, large global enterprise buyers should still perform due diligence on the availability of local Jaspersoft (commercial version) resources.

- **IBM's Agile BI is currently being extended from Cognos Insight to Watson Analytics.** IBM Cognos products were not evaluated in this research, but rather the findings were based on prior product briefings, demos, and feedback from Forrester clients. IBM's main Agile BI offering currently is Cognos Insight, an in-memory personal desktop tool. Cognos Insight is based on IBM's TM1 in-memory OLAP architecture and offers most of the Agile BI features including business user self-service and advanced data visualization. For years its main differentiated features have been writeback and in-memory query performance. Just recently, IBM added new features to Cognos Insight like "undo" for conditional formatting, a linking and expression editing interface, interactive synchronization control, and support for ragged and unbalanced hierarchies (a typical OLAP challenge).

  As an Agile BI product for IBM, Cognos Insight will continue to serve its purpose in small and midsize businesses, and as a financial performance management tool. But in 2014, IBM plans to introduce a significant new Agile BI offering with the cloud-based Watson Analytics, a cloud-based governed data discovery platform. Based on the powerful big data Watson technology, Watson Analytics aims to overcome the skills gap that often makes data exploration and analysis inaccessible to non-experts by providing such features as an NLP (natural language processing) interface that is used to locate the most relevant data, semantic and statistical analysis of the data to ensure the user is started with an intuitive and relevant visualization, pre-built analytic functions, from forecasting algorithms to filters, that are surfaced without any technical jargon and presented to the user in plain business language, automatic detection of important relationships in the data, through advanced analytics, to surface insights and encourage further exploration. While IBM has not publicly announced the GA of Watson Analytics, a rigorous beta program is currently underway and expanding with approximately 100 external users.

### Contenders

- **Oracle OBIEE is not a single Agile BI product — key agile features exist in multiple products.** Oracle OBIEE is as scalable and as ready for mission critical applications as they come. OBIEE packs a comprehensive suite of products such as BI Server (a ROLAP engine and a common enterprise business model and abstraction layer), BI Answers (ad hoc query and reporting), BI Interactive Dashboards, BI Delivers (a BAM product), BI Publisher (enterprise reporting and distribution of "pixel-perfect" reports), and Office Plug-in. Agile BI features are spread throughout these products. For example, BI Server, by sharing metadata with Oracle ERP applications, comes

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out of the box with actionable BI — ability to write back to transactional applications. In another example, Oracle ADV capabilities now come with autosuggestions which recommend best fit visualization based on the user data and the intent of the analysis. And its best-in-class, separately sold Endeca product allows users to search for structured and unstructured data across the entire data set and faceted navigation — key features in data exploration.

However, all of the Agile BI features don't manifest themselves until technology professionals set up the environment first. So for now, while OBIEE stands firmly as a leading enterprise BI platform, it lacks key requirements to take up a higher position in the Agile BI market segment. The upcoming BI Cloud Service will likely go a long way in simplifying this setup process.

## SUPPLEMENTAL MATERIAL

### Online Resource

The online version of Figure 4 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 surveyed a total of 112 of the vendors' current customers.

### 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.

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.

## 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.

## ENDNOTES

[1]  For more information, see the July 3, 2014, "Forrester's Agile BI Capabilities Self-Assessment Model" report.

[2]  For a detailed evaluation of the vendors' financial performance, installed customer base, partnership ecosystem and installed customer base, see the December 18, 2013, "The Forrester Wave™: Enterprise Business Intelligence Platforms, Q4 2013" report.

[3]  Forrester has created a pragmatic tool clients can use to categorize and shortlist the large BI market based on specific needs. See the May 23, 2014, "Forrester's 10-Step Methodology For Shortlisting Business Intelligence Vendors" report.

## About Forrester

A global research and advisory firm, Forrester inspires leaders, informs better decisions, and helps the world's top companies turn the complexity of change into business advantage. Our research-based insight and objective advice enable IT professionals to lead more successfully within IT and extend their impact beyond the traditional IT organization. Tailored to your individual role, our resources allow you to focus on important business issues — margin, speed, growth — first, technology second.

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