

The Buyer's Guide to Business Intelligence Software

2016 edition

Curated from End-User Reviews on:

trustradius™

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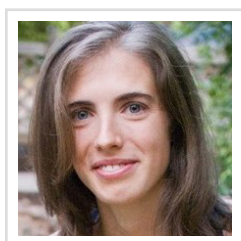
About This Report

Why read this report?

TrustRadius is excited to publish our second edition of the Buyer's Guide to Business Intelligence Software. The updated guide is a distillation of more than 2,250 ratings and in-depth reviews of 22 leading BI software products on TrustRadius. All ratings and reviews were contributed by authenticated end-users, and many were written or updated in the last year. We believe that the most useful insights come from first-hand users, particularly in a category like Business Intelligence, where there is such a wide variety of available tools at all price points, all with very similar marketing messaging. As always, each reviewer was vetted and validated by a TrustRadius team member. The result is a reliable, independent analysis, uninfluenced by vendors or anyone else with an agenda.

In addition to reading and distilling every single review, we spoke with vendors and experts to offer differing viewpoints on the direction of the BI market in 2016.

As with our other [buyer's guides](#), we hope this report will help you select the BI tool that best fits your needs.



Megan Headley
Research Director
TrustRadius

About This Business Intelligence Guide: A Note from the Author

The first TrustRadius Buyer's Guide to Business Intelligence was published in November 2014. That guide segmented the market into different product types with different advantages and disadvantages, with some types being more suitable for specific use cases.

The guide contained separate TrustMaps for the two principal product groupings: traditional full-stack platforms, and more agile data discovery and visualization tools. Dashboards and predictive analytics were the remaining adjacent product types. While these two major segments still contain sets of products that are quite unlike each other, the emphasis on speed agility in today's business

climate has brought the two segments closer towards each other as they both endeavor to provide data for rapid and informed decision-making. Indeed many larger organizations use products from each major segment to solve different and specific problems. However, the impetus towards decentralized and agile decision-making has rendered the strict division of tools less clear cut than it used to be and, for this guide, we have not segmented BI products into separate full-stack and data visualization TrustMaps. Here, TrustMaps are segmented according to customer size.

In this guide you'll find:

- » A discussion of the various types of business intelligence products
- » Recent trends in the business intelligence software market
- » TrustMaps showing the Top Rated tools for Small Businesses, Mid-Sized Companies, and Enterprises based on user ratings and research frequency by prospective buyers on TrustRadius
- » Detailed profiles of 22 business intelligence tools, including customer demographics and pros & cons as cited in 2,250+ authenticated end-user reviews and ratings
- » Tips from experts on how to buy a BI solution



Alan Cooke
Research Manager
TrustRadius

ABOUT TRUSTRADIUS

TrustRadius is the most trusted review site for business technology, serving both buyers and vendors. We help buyers make better product decisions based on unbiased and insightful reviews. We also help vendors scale and harness in-depth reviews to accelerate sales. Unlike software directories, TrustRadius collects reviews that are structured and substantive, averaging more than 400 words. Every reviewer on TrustRadius is authenticated and every review vetted by our Research Team before publication. Founded by successful entrepreneurs and backed by the Mayfield Fund, TrustRadius is bringing transparency and efficiency to the \$3.7 trillion business technology market.

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Types of Business Intelligence Tools

The Data Management Problem that BI solves

Companies collect large quantities of operations data as a by-product of doing business. Huge quantities of data are stored in finance, procurement, sales, marketing systems and multiple other data repositories. Being able to analyze and understand this data is extremely important to running the business. For example, Enterprise Resource Planning (ERP) systems typically contain data concerning the supply chain and inventory levels in addition to financial data. HR systems contain all employee records including demographic data, salary level, and performance reviews. Customer Relationship Management (CRM) systems contain customer, sales pipeline, forecasting and sometimes customer support case data.

The problem is that all this operational data is typically not accessible in one place for analysis in order to make decisions and provide strategic guidance to the business as a whole. For example, inventory data from an ERP system could be combined with sales forecasting information to understand how to optimize inventories in response to demand. This is the problem that business intelligence systems were designed to solve.

How Business Intelligence Tools Work

Traditional business intelligence solutions solve this problem by putting data into a common store called a warehouse. The data is then normalized - removing redundancy and duplication - making it easier to run queries and retrieve data for reporting. Newer data discovery and visualization platforms solve the problem differently, by either connecting directly to the various data sources, or storing data in-memory for analysis and visualization. There are many different types of business intelligence technology, not all of which depend on the business warehouse paradigm. Many new approaches have emerged, and the following sections describe some of the major classes of business intelligence technology.

On-premise Full Stack Products

On-premise full stack BI solutions have been around the longest and are now being eclipsed by newer, more flexible technology. However, these tools still have a very large installed base, and are still very effective for managing structured data from many sources and structuring it for standard reporting across the enterprise. They have a number of key components, although every solution does not necessarily have each component of the stack:

- » **Data warehouse:** A relational database designed specifically for data analysis instead of standard transactional processing. It acts as the conduit between operational data stores and the gaining of insight based on composite data. Slices of data from the warehouse—usually summary data for a single department like sales or finance—are stored in a “data mart” for quicker access.
- » **Extract, Transform, Load (ETL):** The first important task is to extract the data from the various data sources and load it into a data warehouse where it is normalized (organized into tables while cleaning the data and removing redundancy and inconsistencies). Once it has been appropriately structured it is available for querying and analysis.
- » **OLAP or ad-hoc query tools:** OLAP (Online Analytical Processing), and its close cousin ROLAP—(Relational) Online Analytical Processing, is a technology that allows users to query data across multiple dimensions, for building standard reports or for enabling users to ask a specific business question.
- » **Presentation layer:** Dashboards, scorecards and reports presenting the data to users in a visually appealing way that is easy to understand.

These tools are useful for organizations that wish to deliver relatively stable operational reports in a consistent format to front-line staff across the organization to help them monitor their progress or understand where performance is lagging. The advantage of this kind of enterprise reporting capability is the consistency of the data sets being used across the entire organization, which makes it easy to create alignment. It is notoriously difficult to achieve alignment if there is no common agreement about the accuracy of data, and stakeholders have different sets of data showing contradictory information. This is typically what people mean when they refer to a “single source of the truth”.

However, on-premise first, full-stack BI systems are difficult to build and implement, expensive, and often difficult to learn and use. They also lack flexibility and are difficult to change once they have been built. It has been relatively common in recent years for publications and analysts to bemoan the high failure rates for BI projects, and full-stack deployments are often the culprits. Implementation times for these tools can be long, because setting up the data warehouse and creating the schema are inherently IT-intensive, complex tasks. When they are finally up and running, the ROI can be low, often because of usability problems.

However, it should be pointed out that this does not have to be so. In recent years, a new category of data warehouse automation tools has emerged to mitigate these problems. Products like TimeXtender, Kalido, WhereScape, and Attunity go some way to making data warehouse creation and maintenance a far more agile and collaborative experience. These tools are capable of automating the creation of a data warehouse schema, indexes, cubes, etc. They can also create business metadata for specific business intelligence tools. In this way, they can dramatically simplify and speed up both data warehouse development and subsequent maintenance.

Additionally, not all tools in this category are legacy tools. There are more modern approaches to providing end-to-end capabilities using newer technology. A good example of this is Sisense, which uses a more flexible version of OLAP cubes, called “elasticubes”, and leverages data storage provided by the chip set to eliminate some of the speed limitations of disk storage. This approach yields significant speed increases of more than 50x over the competition.

Full-stack BI tools built on a data warehouse can still provide immense value to larger organizations with the resources to deploy and manage them, and the deep pockets required to invest in them.

Example Products

- » [IBM Cognos](#)
- » [Microsoft BI](#)
- » [MicroStrategy](#)
- » [SAP Business Objects](#)
- » [Sisense](#)

Best Fit For

- » Organizations whose primary need is for alignment and consistency of data across a very large organization and the provision of accurate reports to line of business managers and operational employees. These tools provide “a single version of the truth” as a basis for decision making across an entire enterprise.
- » Organizations with access to a highly skilled IT division, which includes ETL developers, report developers, data architects, data administrators and—very importantly—corporate trainers. (However, some newer products that attempt to radically simplify both deployment and usage need far less IT oversight).

Open-Source Full-Stack Products

The primary reason for choosing open-source BI tools is often perceived cost. Commercial BI tools are still largely seen as having superior technology, while open-source tools are viewed as offering good-enough technology at a fraction of the price. But although download of the software can be completely free, large-scale open-source deployments can still turn out to be a significant investment when factoring development costs. Also, there are very often commercial versions of the products that offer capabilities that the core free product does not. These typically include enterprise-level features like integrated security, connectivity to multiple data sources, administration tools, etc.

It is also important to bear in mind that these are developer-led tools and are designed with a developer mindset, which often means that significant development resources will be required to deploy and integrate them in an existing corporate environment.

There is however renewed interest in open-source BI tools today, partly fuelled by the extraordinary success of open-source products like [Hadoop](#) and [Revolution Analytics R](#), recently acquired by Microsoft, which have raised awareness of the open-source approach.

Example Products

- » [Actuate](#) (commercial product built on open-source technology)
- » [Pentaho](#)
- » [Jaspersoft](#) (acquired by TIBCO in 2014)

Best Fit For

- » Open-Source BI can be a good choice for organizations that have the technical expertise required to integrate the code base and make it work effectively within the organization. Typically these tool sets are very complete, due to the large number of developers working on the code base.
- » Open-source reporting engines are a particularly logical case for application vendors looking for a reporting engine to integrate into their product.

Cloud Full-Stack Products

Cloud full-stack BI products are a subset of full-stack products. They tend to include a data store, an ETL and semantic layer, and a range of front-end presentation tools sitting on top. The difference is largely in the deployment model (cloud versus on-premise). However, it makes sense to consider these solutions independently since they have some unique characteristics. For example, they are far easier to deploy, and do not require nearly as much IT oversight as traditional full-stack BI products.

Increasingly traditional full-stack BI providers are offering cloud versions, but most are single tenant, i.e. a single instance of the software supporting a single customer. Cloud-only full-stack BI products like Birst and GoodData are true multi-tenant SaaS products deployed on public clouds and offer all the advantages of true SaaS products, i.e. lower cost, frequent updates, and no data center infrastructure required. Tableau introduced a cloud-version of the product, Tableau Online, in 2013.

This familiarity with the cloud paradigm for enterprise business systems, in conjunction with massive and growing demand for analytics by business users, has spurred the development of cloud BI systems, and a basic comfort level with analytics in the cloud. It was inevitable that as operational data moved to the cloud, analytics would soon follow, and cloud BI is fast becoming ubiquitous, despite some reservations among highly regulated industries. Cloud BI platforms are often positioned as splitting the difference between legacy and discovery tools, offering the ease-of-use of discovery tools, with legacy data integration capabilities.

Cloud BI has been talked up as the next big thing in the BI world for some time now, but adoption has been slower than expected. One of the major obstacles has been concern over data security—corporations have been reluctant to put sensitive data in the cloud. However, as

more operational data is located in the cloud as cloud-based operational systems like Salesforce, NetSuite, Zendesk, SuccessFactors and a multitude of others become ubiquitous, cloud BI adoption is becoming much more mainstream. This familiarity with the cloud paradigm for enterprise business systems, in conjunction with massive and growing demand for analytics by business users, has provided a basic comfort level with analytics in the cloud. It was inevitable that as operational data moved to the cloud, analytics would soon follow, and cloud BI is fast becoming ubiquitous, despite some reservations among companies in highly regulated industries.

Example Products

- » [GoodData](#)
- » [Birst](#)
- » [Domo](#)
- » MicroStrategy Secure Cloud

Best Fit For

- » Organizations that have come from the Internet world and have been using SaaS applications like Salesforce and SuccessFactors to run their businesses. These organizations are likely to have fewer security concerns around storing their data in the cloud.
- » Organizations of all sizes that want a much easier to deploy, less IT-centric version of the full-stack products allowing “single version of the truth” reporting across a department or a whole company.
- » Smaller organizations with a limited budget that want a fully featured system at far lower initial cost due to the absence of any capital outlay for on-premises infrastructure.

Data Discovery and Visualization Products

Data discovery and visualization tools are designed for data analysts and more technical business users. The focus of these tools is not really reporting and monitoring, but rather ad-hoc analysis of multiple data sources. They provide data analysts with an intuitive way to sift through large volumes of disparate data to expose patterns and outliers hidden in the data. They replace the traditional rows and columns of traditional data presentations with graphical pictures and charts.

These tools have taken the BI world by storm, largely because of the low cost of implementation and because they do not require IT support. Ease of use is another key feature encouraging rapid adoption. They allow end users with some comfort level in data analysis to access multiple different data sources and perform data mash-ups and display the results in visually compelling ways. For example, a company might produce a visualization of expenses by department across a large enterprise to help hone in on outliers and figure out the reason for the disparity.

Example Products

- » [Entrinsik](#)
- » [IBM Watson Analytics](#)
- » [QlikView](#) and [Qlik Sense](#)
- » [MicroStrategy Analytics Desktop](#)
- » [SAP BusinessObjects Lumira](#)
- » [Tableau Online, Desktop & Server](#)
- » [TIBCO Spotfire](#)

Best Fit For

- » Business analysts requiring access to data from disparate systems, and the ability to blend the data with no required IT assistance, and produce visually compelling images to understand the data and tell a story.
- » These are not the right tools for providing a reporting infrastructure across an entire company and very few companies use these tools as their corporate BI standard, but it is also rare for at least one of these tools not be used at an individual or departmental level.

Big Data Products

Big data does not describe a single technology or initiative, but rather a broad trend that is affecting all kinds of organizations. Big data technology emerged in response to the enormous volumes of data that have inundated organizations in recent years, and that are beyond the capacity of traditional business intelligence tools to process and manage. The problem that Big Data technology vendors are trying to solve is how to actually use this data to improve business outcomes. Terabytes of digital information are collected from actual physical devices like RFID sensors and machines, along with human-sourced communications like text image or video. Most existing BI systems cannot easily comprehend this kind of data, as they have been designed to make sense of highly structured data organized in tables and stored in a data warehouse. That leaves a vast quantity of potentially very useful data out in the cold. This is the driver behind the rapid ascension of the Hadoop and noSQL data stores like [MongoDB](#) and [Cassandra](#), and the constellation of products that have accrued around them.

The value the big data technology can bring to the enterprise is varied and profound. Here are some typical use cases among many:

- » **IT Data Center Optimization:** Running a large, complex modern data center is not an easy task. A large data center can produce terabytes of plain text log files. Big data systems can help analyze this massive volume of log files to understand the root cause for any system

breakdown, or sub-optimal performance. These systems can analyze terabytes of data daily to decipher what is happening across the stack with every single transaction. Without big data systems, this is impossible.

- » **Fraud Detection:** Fraud detection is all about building models in order to identify customers engaging in fraudulent behaviors. The problem is building these models however, is the underlying data. Because the volume of transactional data is so intimidatingly large, models are usually constructed on subsets or segments of the entire data set. Partial data and high latency can seriously reduce the predictive power of these models. Big data tools allow models to be built on the entire data set and with very low latency, thus vastly improving the power and accuracy of the predictive models.
- » **Call center analytics:** Big data models can help to understand customer loyalty decay, and to remediate customer dissatisfaction at key touch points to increase customer loyalty.
- » **Social media analytics:** Analysis of torrents of data in the form of social media streams can provide insight into what customers are saying about a company and its products along with those of competitors. While this sentiment analysis is important, the real power of social analytics is linking this sentiment data to transactional data to understand how sales promotions, loyalty programs and competitor activities correlate to this social sentiment.

Example Products

Hadoop Infrastructure

- » [Hadoop](#)
- » [Hortonworks](#)
- » [MapR](#)
- » [Amazon Elastic MapReduce](#)
- » [Microsoft Azure HD Insight](#)

Big Data Analytics

- » [Platfora](#)
- » [Datameer](#)

SQL on Hadoop

- » [Apache Hive](#)
- » [Apache Spark](#)

Best Fit For

- » Companies who need to analyze very high volumes of data, from very diverse data sources, to solve pressing and complex business problems.

- » Data-rich organizations with an IT department closely connected to business units, and with a strong desire to use their data to gain competitive advantage.

EMBEDDED BI

Several BI vendors also sell their products to ISVs to embed analytics capabilities in their own products. While this is not a separate class of products, this specific use case has become increasingly important as companies grapple with ever-growing data volumes and become more familiar with data discovery and visualization tools. Many software vendors realize that built-in analytics capabilities are critically important to the success of their products in the marketplace and are faced with a critical build-or-buy decision. They can add significant competitive advantage to their own customers by providing tested BI technology. This can allow them a rapid time to market and better cost management than building capabilities in a domain where they have limited expertise.

In the early days of this model, companies embedded proprietary code in their products using APIs provided by BI vendors. However, web-based solutions no longer need to be embedded, but reside adjacent to the application, greatly simplifying deployment and administration.

The market initially developed around open-source products designed primarily for developers like Logi Analytics, Tibco JasperSoft, OpenText and Pentaho (Hitachi Data Systems). The emergence of cloud hosting infrastructure allows vendors to make their solutions available in platform-as-a-service cloud environments.

This use case is quickly becoming pervasive in the marketplace. GoodData, for example, is now almost exclusively focused on this market. In addition to GoodData, embedded solutions are also available from Logi Analytics, Tibco JasperSoft, OpenText and Pentaho (Hitachi Data Systems), Birst, Qlik, Tableau, Looker and Sisense.

Recent Trends in the Business Intelligence Market

Shift from Centrally Governed to Agile, Self-Service BI

It's impossible to discount the extraordinary success of data discovery and visualization tools, and the emancipation of business analysts from old-school ETL processes and data modeling. This revolution has democratized data and greatly accelerated the speed of data analysis to help companies make data-driven decisions in fast-moving, highly competitive environments. The structured world of data warehouses and ETL processes as the single source of truth within the enterprise has been permanently challenged.

The hard distinctions between the various types of BI tools described in the section above are becoming less significant, as all vendors orient their products away from the IT-centric model towards a more agile, self-service approach. For example, full-stack vendors have all now built data discovery and visualization tools as a component of their platforms, and these new capabilities are improving all the time:

- » SAP Lumira started life as SAP Visual Intelligence and was renamed SAP Lumira in 2013, and SAP BusinessObjects Lumira more recently. The product has gone through several enhancement cycles and has become a solid discovery and visualization tool for SAP Business Objects users who use the two products together. Additionally, SAP has built an entirely new cloud-based BI platform called Cloud for Analytics, incorporating not just standard BI components, but also business planning, predictive analytics, and [Governance, Risk, and Compliance](#) (GRC).
- » MicroStrategy 10, and subsequent point releases, has also significantly improved the discovery and visualization tool called Analytics Desktop, since its initial release in 2013. Since then the company has updated the licensing model, usability and governed data discovery capabilities.
- » IBM released Watson Analytics at the end of 2014. This is an entirely new cloud-based analytics platform designed to process natural language queries, pattern detection, and data discovery with advanced analytics. The product has already amassed a significant user base through the freemium sales model and is starting to acquire paying customers. IBM is now applying Watson user experience and design principles to the Cognos platform, and the latest release of Cognos has been given a new name: Cognos Analytics.
- » SAS released Visual Analytics in 2012, and this has now become the flagship product. The Enterprise BI Server product still available for large deployments but is no longer a focus for the company.

- » Microsoft released the second major version of Power BI in 2015, and continues to enhance its capabilities. The product is a cloud-based data discovery and visualization framework with both desktop and browser-based authoring. It has pre-built connectors to 60+ different data sources.

Conversely, data discovery and visualization vendors are being pushed in the opposite direction. Products like QlikView/Qlik Sense, Tableau and TIBCO Spotfire comprised the first entirely successful attempt to wrest analytics away from the control of the IT department and make these capabilities available to business users who no longer have to rely on the IT department for data analysis. The IT department typically has sophisticated data management expertise, and for this reason has functioned as the de-facto BI service bureau for business departments that do not necessarily have those skills. But as business has speeded up and the urgency of understanding data has increased, the IT department became a bottleneck hindering the ability of business units to make data-driven decisions.

Ironically, the very success of this data discovery and visualization movement has sewn the seeds of reaction. A common scenario is that multiple groups within an organization purchase more and more seats for a data discovery and visualization tool, which began as a small departmental purchase. This inevitably leads to calls for enterprise licenses, and once a product becomes a standard offering deployed across the enterprise, the IT organization is inevitably involved again. Data discovery and visualization tool vendors have responded by building enterprise features like security, data governance, data preparation, and even report generation into newer versions of their products in order to satisfy the requirements of the IT department.



Qlik and Tableau started by selling into the business side directly, many times by-passing IT. It became clear that multiple instances could cause fractured environments with inconsistent results produced. Each department could develop its own numbers which often did not mesh. There was no single source of data. Eventually customers wanted enterprise licenses, which means the vendor had to deal with IT. The IT department gets involved and brings in questions about governance, metadata, administrative functions. That's when Qlik and Tableau had to add more sophisticated data management functions and features. Qlik bought Expressor and integrated it into their Sense product for easier data integration / metadata management and Tableau now has its own data preparation and metadata management capabilities. Both companies have enhanced their governance and audit capabilities as well. They are now able to satisfy most of the IT requirements for enterprise implementations.



Claudia Imhoff
CEO Intelligent Solutions, Author



Tableau and Qlik are now being forced down the same road as traditional vendors, with increasing demands for enterprise level data governance, and even report generation. Ultimately, the question of whether the data is clean and reliable becomes central.

Barry Devlin

BI Consultant, Author, Speaker



Increased importance of Big Data Systems

The ascendance of big data and Hadoop is another major thread in the development of the business Intelligence landscape.

Hadoop Adoption Rate

2015 saw increased adoption of Hadoop and Hadoop-related tools. This is not exactly a new technology: Hadoop has been around for 10 years, and is still only being used by a relatively small number of early adopters. However, a Hadoop adoption **survey** based on 2,200 responses conducted by AtScale indicates that of those who already use Hadoop, 76% plan on doing more within the next 3 months. Of those who have not yet deployed Hadoop, almost half say that they plan to do so within the next 12 months. In addition, 94% of respondents are bullish about their ability to achieve value from Hadoop. Hadoop does look as if it's poised for significant growth and adoption.

How Does Hadoop Differ from a Traditional Data Warehouse?

Hadoop is often erroneously thought of as a database. It is, in fact, an ecosystem of open-source components including MapReduce, the Hadoop Distributed File System (HDFS), the HBase NoSQL database, along with other databases, and many other packages facilitating import and export of data into and out of the HDFS. All of this software is deployed and run on inexpensive commodity hardware—usually many different servers—to cope with the massive volumes of data.

One of the most significant differences between Hadoop and a relational data warehouse is the way in which the data is stored. In a data warehouse, the data is carefully structured and organized before it is stored, so the data is highly structured and easily accessible through well-constructed queries. A Hadoop data lake by contrast contains large volumes of raw, unstructured data, which can be analyzed by business analysts and data scientists without the constraints of any preconceived structure being imposed on the data.

The terminology often used to describe this difference is “Schema-on-Write” versus “Schema-on-Read”. In Schema-on-Write, the data is mapped and parsed before being written into predefined columns and rows in the warehouse. Conversely, in Schema-on-Read, analysts can use tools like Hive, Spark and other similar tools to analyze the data in its native format. Another way of putting this is that ETL is performed on the fly. There are advantages and disadvantages to both approaches, but one of the big advantages of Schema-on-Read is the ability to analyze raw, unstructured data without being slowed down by an existing structure or schema that may inhibit creativity and flexibility.

Why Hadoop Matters

In the first edition of this guide, we described the problem that big data vendors are trying to solve: How to harness the Terabytes of unstructured data like streaming data, video data, machine data, etc. to improve business decision-making and business outcomes. Business data is no longer only collected from operational and transactional, internal systems, but also from physical devices like sensors and machines, and from human sources like social media, image designers, etc. The relational data warehouse was designed for highly structured data stored in tables, and cannot comprehend this kind of unstructured data, or this volume of data—hence, the rapid ascension Hadoop and of so-called “data lakes,” or vast repositories of raw data stored in its native format until needed.

BI tools must all now be capable of ingesting and analyzing this data, often in conjunction with more organized, structured data. Virtually all BI vendors now integrate with Hadoop in some fashion, and many legacy BI vendors have formed partnerships or acquired vendors in the big data space to be able to tap into this new data universe. Notable big data acquisitions include:

- » Teradata acquired four Hadoop-related companies in 2014: [Think Big](#), [RainStor](#), [Hadapt](#), and [Revelytix](#)
- » IBM acquired two healthcare big data companies, [Explorys](#) and [Phytel](#), in 2015 as it builds out healthcare big data analytics capabilities on Watson. It also acquired [Cleversafe](#), a big data storage product.

Microsoft acquired [Metanutix](#), a startup designed to help people crunch big data, in December of 2015.

More deals of this kind are likely in the second half of 2016 and in 2017.

Data Preparation and Machine Learning

The two trends just described: a shift away from IT-managed BI deployments towards agile, data discovery and visualization tools, and an increasing emphasis on schema-less Hadoop data lakes, have both led to a third major trend: data preparation and machine learning.

The task of data preparation used to be performed by IT departments running Extract, Transform and Load (ETL) processes. ETL extracts the data from the various data sources, and loads it into a data warehouse where it is normalized by organizing it into tables, while cleaning the data and removing redundancy and inconstancies. Once it has been appropriately structured, it is then available for querying and analysis. In the new self-service, agile world, this paradigm no longer holds. As data becomes more democratized, one of the biggest challenges for business users trying to make sense of data for analysis, is that the data must first be prepared. Data from multiple different sources has to be integrated and cleaned before any analysis can occur. How successful less technical business users (rather than data analysts and data scientists) can be at this task is a matter of debate. But given the scarcity of technical data scientists and analysts, the goal of many vendors is to create a kind of “ETL light” that requires the minimum amount of expertise in order to be successful.

Data Preparation for Data Discovery and Visualization Products

Data discovery and visualization tools like Tableau and Qlik have typically relied on third-party tools like Alteryx to clean and prepare data for analysis. Indeed these product types are quite complimentary, and the vendors have lead sharing agreements in place. However, data discovery software vendors are increasingly developing their own data integration and data cleaning capabilities. For example, Tableau 9 introduced some Excel-based data preparation capabilities that are a first step in that direction. Qlik has always had the ability to perform data loads and basic data preparation tasks though scripting, but non-technical users have been forced to rely on third-party tools. TIBCO Spotfire 7.6 has what it calls visual “in-line data wrangling” functions that lets users perform data preparation functions while performing their analysis, an approach they believe is more useful than workflow style preparation tools. Ultimately though, all of these vendors are likely to build robust data preparation capabilities into their products so that users are not forced to purchase separate products to perform this mechanical but crucial process.

But the jury is still out on the ability of business users to use these tools successfully.



Tableau and Qlik are terrific additions to the marketplace; they expanded the ability of people to be able to analyze data. But while these tools have made a great leap forward, I don't see a comparable leap on the data side – if you look at wrangling tools and data prep tools, they are still aimed at techies, or IT people, or consultants like me. We're not really quite there yet.



Rick Sherman
Managing Partner at Athena IT Solutions

A more likely scenario is that data analysts or even data scientists will still be the primary users of these tools, at least in the medium term. The increasing prevalence of machine learning technology may eventually bridge this gap, but this is still an issue in the current environment.

Data Preparation for Big Data

Big data represents an even bigger challenge. The explosion of interest in big data technology, as organizations begin to understand the potential competitive advantage to be gained from analyzing massive quantities of unstructured data, has triggered a burst of innovation across the entire analytics landscape. As pointed out, data warehouses and big data stores like Hadoop are vastly different, but the need to prepare the data for analysis is equally crucial for both scenarios. This is and has always been an arduous task and frequently takes longer than the time required to actually analyze the data.¹

One direct result of this is the emergence of a new class of data preparation tools like the aforementioned Alteryx, specifically designed for big data preparation: [Trifacta](#), [Paxata](#), and [Tamr](#), are some of the newer entrants in addition to more established vendors like [Informatica](#), [Datawatch](#), and [IBM](#).

¹ For Data Scientists, “Janitor Work” is Key Hurdle

When IT was the steward of enterprise data, specialists handled data preparation and integration as part of the ETL process. The difference today is that data preparation tools are no longer being designed for the IT specialist, but rather for the self-service data analyst or business user.

Machine Learning

Machine learning is a relatively new data analysis method that has become a hot topic in analytics generally, but is also getting a lot of attention in the context of data preparation. As data analysts and even business users with limited data management expertise are now frequently performing data preparation on the fly, it becomes critically important to build software that can intuit and understand large volumes of data automatically. Machine learning technology uses algorithms that are capable of learning iteratively. Given that business users and data analysts now have to perform their own data preparation without assistance from IT, modern data preparation tools have started to build machine learning under the hood, in order to make things as easy as possible for non-experts to perform things like data integration and format conversions on their own. For example, the software can suggest tactics to users for blending data or other data preparation scenarios based on what others have done before. By drawing on a library of past actions, the software is capable of guiding the user to accomplishing tasks that might otherwise have been too complex or require the assistance of a data expert.

Coexistence of Multiple Data Sources

Many large enterprises are making big bets on Hadoop as a critically important data framework for the future. This technology will be indispensable for managing huge volumes of unstructured and semi-structured data in a cost-effective and highly flexible environment. However, it should not be understood as a replacement for the traditional data warehouse. This is not a rip-and-replace technology. According to data warehouse pioneers like Barry Devlin and Ralph Kimball, the two technologies will exist side-by-side for the foreseeable future. Hadoop will be used for mass storage of unstructured data for predictive and exploratory data discovery. Data warehouses, particularly those running against very fast, massively parallel processing (MPP) relational databases like Redshift, Vertica, Netezza, and Google BigQuery, will remain the best infrastructure for structured reporting, which is still the lifeblood of most organizations. As mentioned above, a new breed of data warehouse automation tools have mitigated some of the drawbacks of setting up and managing these data stores.

Ralph Kimball described this coexistence succinctly in a webinar in 2014: “Everyone has now realized that there’s a huge legacy value in relational databases for the purposes they are used for. Not only transaction processing, but for all the very focused, index-oriented queries on that kind of data, and that will continue in a very robust way forever. Hadoop, therefore, will present this alternative kind of environment for different types of analysis for different kinds of data, and the two of them will coexist.”²

² *Building a Hadoop Data Warehouse, Dr. Ralph Kimball, 2014*



The data warehouse is where you create production analytics. These use trusted, high quality data, the data you count on for KPIs, regulatory and compliance reports, precise financial analyses, and so on. But there is also a need for an experimental environment. This environment uses (big) data without formally vetting it, without rigorous data quality processing or even data integration processing. Data analysts and data scientists just want to experiment with the data, try different analytical techniques, perform general, unplanned queries and analyses. This environment is what I call the Investigative Computing Platform. It is not as rigorously controlled as the data warehouse and has more flexible governance and schema support. These two environments (the production data warehouse and the more experimental investigative platform) are diametrically opposed to each other but serve important purposes in the world of analytics. Will there be a single technology that can handle them both? The technologies are certainly moving in that direction, but perhaps not today; I believe it will be a while before we see the data warehouse and the experimental environment fully supported in a single technological environment.



Claudia Imhoff
CEO Intelligent Solutions, Author


















The data infrastructure of the future will include a variety of data repositories including relational database servers, Apache Hadoop, and other NoSQL platforms, interlinked by a metadata catalog defining the characteristics and context of all the data in each store.

Data warehouses and standard BI reporting are not going to disappear any time soon.










Implications of Trends for BI Buyers

- » Traditional, data warehouse-based BI systems sometimes referred to as “legacy BI” are unlikely to be at the top of the modern BI buyer’s list, at least to begin with. Although these systems are remarkably effective within their domain, they have traditionally not been able to supply the agility and exploratory freedom that is required by today’s business environment. However, many of these vendors are remaking their product suites to provide more agile capabilities and reduce dependence on the IT department. These products are likely to remain good options for larger enterprises, as they continue to re-design their products to meet the needs of the modern agile enterprise.
- » Data discovery and visualization systems provide the agility and freedom missing from traditional tools, but have their own shortcomings. These very powerful tools tend to lack data preparation and data governance capabilities which are required if they are to be used as the primary BI system across an enterprise. The addition of a data preparation tool will almost certainly be needed to blend and structure data from multiple sources, although eventually these capabilities are likely to be built-in.
- » It is almost certainly unwise to swap out data warehouses and their associated BI systems for the new world of Hadoop and data lakes. The big data Hadoop infrastructure is designed to house high-velocity and high-volume unstructured data generated by machines. However, Hadoop makes little sense—at least today—as a repository for business-critical, highly structured, core business data, which is best, stored in a data warehouse or other structured data store.






BI Products Featured in this Guide

PRODUCT NAME	 Score	BEST FIT FOR...
  (31)	8.7 out of 10	Alteryx is a good option for companies with a need for a data blending and data modeling before staging the data for visualization in another tool like Tableau, QlikView, Microsoft Power BI, or TIBCO Spotfire.
  (83)	7.7 out of 10	Birst is a pioneer in multi-tenant, cloud BI and a good choice for organizations looking for a cloud-based platform for business intelligence and analytics, that can help organizations looking to analyze complete business process, and operationalize analytics across both decentralized and centralized teams.
  (30)	7.5 out of 10	Chartio is designed for business users and allows visualizations to be built by direct connecting to databases. The primary target audience is smaller companies.
  (30)	8.5 out of 10	This is a relatively new product, and Dundas provides a lot of support for the embedded use case. Its broad range of functionality, and focus on a dedicated business user's experience make it a contender for companies looking for excellent visualization coupled with strong connectivity to multiple data sources and ETL.
  (78)	8.5 out of 10	Informer is used by customers in a variety of industries where there is a strong need to manage large volumes of operational data. Typical customers have limited IT support and a relatively non-technical user base.
  (29)	8.1 out of 10	GoodData's strength is as an embedded or white-labeled application under their "Powered By" program. This is targeted both to ISVs and to enterprises that wish to create and distribute analytics out to internal and external customers. This model makes up about 50% of the company's business, and is expected to grow.
  (135)	6.8 out of 10	IBM Cognos Business Intelligence is an enterprise "full-stack" solution, and has recently undergone a major new re-design. The new platform is called Cognos Analytics. It is still the same platform under the hood, but the user experience is completely different and is similar to Watson Analytics. TrustRadius will endeavor to get early reviews of the new version to help provide guidance.
  (34)	8.7 out of 10	InsightSquared is a good option for small to mid-size companies looking for a tool to support sales analytics, pipeline management, trend analysis, and sales forecasting, and for companies looking to more easily access and understand data from Salesforce.

Continued on next page.

PRODUCT NAME	trScore	BEST FIT FOR...
 ★★★★★ (28)	8.7 out of 10	Looker is a fast-growing new entrant and is a good choice for companies looking for a data exploration tool capable of ad-hoc data exploration of SQL-readable data storage systems. Originally more focused on tabular data, the company is rapidly developing front-end visualization features designed for business users. Looker is also frequently sold for its API, embedding, and OEM functionality.
 Microsoft ★★★★★ (203)	7.6 out of 10	Microsoft BI is a good choice for large Microsoft shops, already using SQL Server across the organization. Power BI is a strong data discovery and visualization tool at a competitive price.
 ★★★★★ (99)	7.2 out of 10	MicroStrategy is a good option for medium to large enterprises in need of a complete set of business intelligence capabilities that can grow from a single data discoverer, to many thousands of users. It includes reporting, dashboards, and data discovery and visualization across the organization. It has particularly strong mobile capabilities.
 ★★★★★ (40)	7.5 out of 10	Pentaho is a solid open-source platform, and the data integration capabilities are particularly strong. This would be a good choice for companies that need to blend and integrate high-volume data from a wide range of structured and unstructured sources.
 ★★★★★ (230)	7.4 out of 10	QlikView is a good choice for companies with developer or power analyst resources to build reports and dashboards. Qlik Sense is a self-service tool built on the same engine that is being rapidly expanded as an enterprise platform.
 ★★★★★ (177)	7.0 out of 10	The SAP Business Objects platform is an enterprise-level system best suited to larger companies, and companies already using SAP enterprise applications. The new cloud platform, SAP Cloud for Analytics, will serve the same audience, although absence of deployment difficulties might extend its appeal to smaller organizations.
 ★★★★★ (64)	8.3 out of 10	SAP BusinessObjects Lumira is an effective visualization and data exploration tool for business users if they are already in the SAP ecosystem. It is easy to use, good value for money and provides excellent ROI.
 ★★★★★ (171)	7.6 out of 10	Crystal Reports is a good design tool for customers already using other SAP products, especially Business Objects, for which it serves as the de-facto report design tool. It is used in conjunction with SAP Crystal Server by mainly smaller companies for frequently repeated reporting tasks like quarterly sales data.
 ★★★★★ (35)	7.4 out of 10	Sisense is designed for companies with a need to process disparate data sources or large data volumes without heavy reliance on an IT organization. It also provides self-service analytics tools that are designed for the business user rather than the IT organization.

Continued on next page.

PRODUCT NAME	trScore	BEST FIT FOR...
 + a b l e a u DESKTOP ★★★★☆ (359)	8.1 out of 10	Tableau is an excellent tool for business analysts, allowing them to do discovery and visualization on data from a large number of data sources with ease. However, it requires additional products to help prepare the data for analysis. It is also not designed for enterprise reporting. TrustRadius does not have enough reviews to cover the Online version, but will endeavor to provide better coverage in the future.
 + a b l e a u SERVER ★★★★☆ (198)	8.0 out of 10	
 TIBCO Jaspersoft® ★★★★☆ (38)	7.2 out of 10	Jaspersoft is an open-source product suite, with particular strength in reporting and analysis, and an intuitive user interface. This is a good choice for companies looking for a reliable reporting engine that can be embedded into other applications.
 TIBCO Spotfire® ★★★★☆ (95)	8.7 out of 10	TIBCO Spotfire is a good choice for companies who need interactive visualization capabilities with built-in data wrangling, predictive and location analytics. Its cloud and on-premises platform is well suited for quickly building analytic applications that can be deployed across a small team or company.
 Z O H O Reports ★★★★☆ (50)	7.8 out of 10	Zoho Reports is a suitable reporting tool for small and mid-sized companies looking for a relatively inexpensive SaaS BI solution with a simple UI and good connectivity to a wide range of databases and business applications.

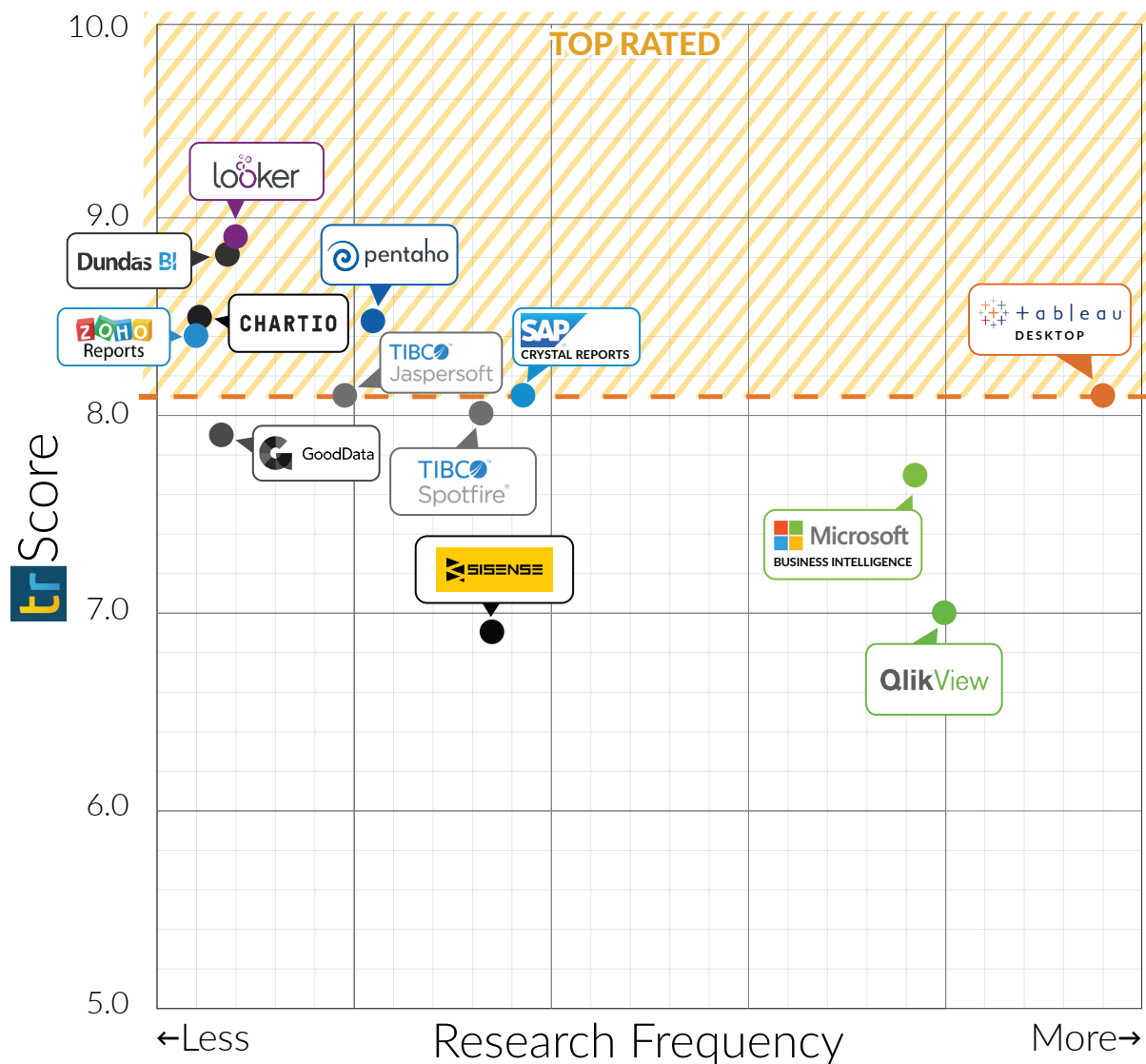
Products not covered in this Guide

A number of BI products are not discussed in this guide because TrustRadius does not have adequate data. Some of the omissions include:

- » Actuate OpenText Analytics
- » Domo
- » IBM Watson Analytics
- » Information Builders
- » Microsoft Power BI
- » Oracle BI Foundation Suite
- » Qlik Sense
- » SAS Enterprise BI Server
- » SAS Visual Analytics
- » Targit
- » Yellowfin

The Best Business Intelligence Software for Small Businesses

Business Intelligence Software TrustMap™ for Small Businesses (1-50 employees)



Based on 264 ratings and trailing 30 days of pageviews
on TrustRadius.com through 6/5/2016.

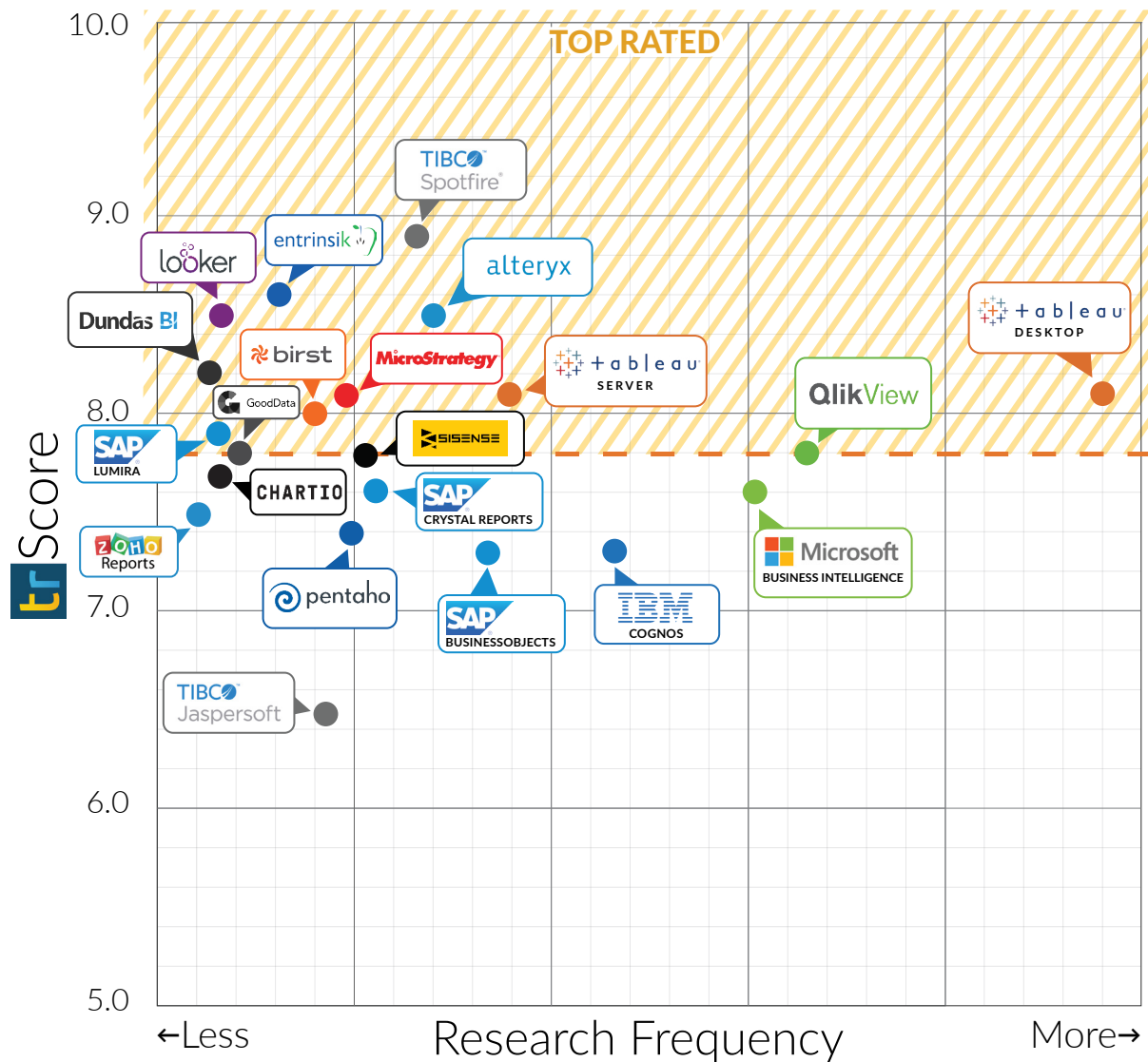
trustradius™

Top-Rated Products for Small Businesses

- » Tableau Desktop
- » SAP Crystal Reports
- » Pentaho
- » TIBCO JasperSoft
- » Looker
- » Dundas BI
- » Chartio
- » Zoho Reports

The Best Business Intelligence Software for Mid-Sized Companies

Business Intelligence Software TrustMap™ for Mid-sized Companies (51-1,000 employees)



Based on 668 ratings and trailing 30 days of pageviews
on TrustRadius.com through 6/5/2016.

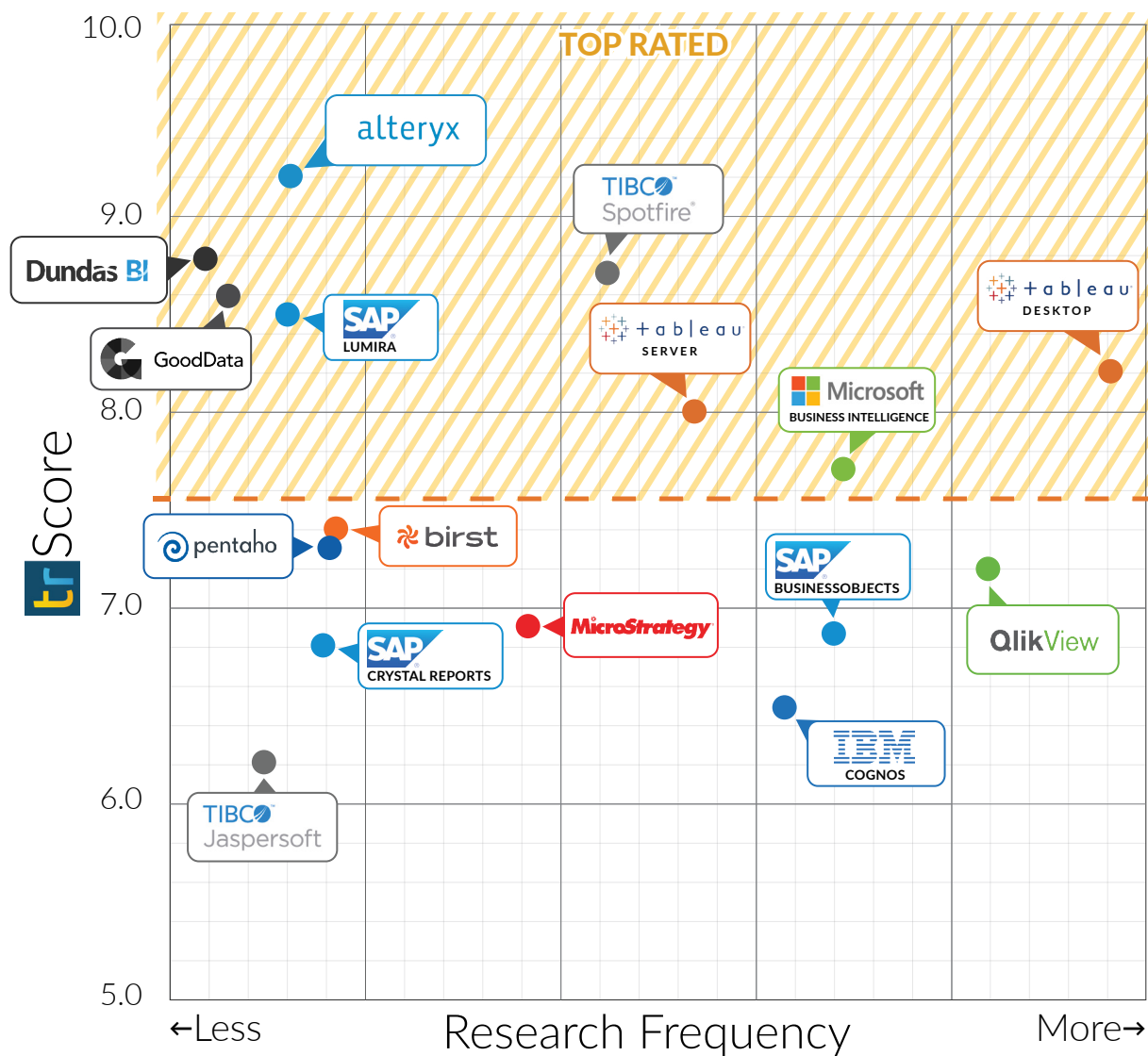
trustradius™

Top-Rated Products for Mid-Sized Companies

- » Tableau Desktop
- » QlikView
- » Tableau Server
- » Alteryx Analytics
- » TIBCO Spotfire
- » Sisense
- » MicroStrategy Analytics
- » Birst
- » Entrinsik Informer
- » GoodData
- » Looker
- » SAP BusinessObjects Lumira
- » Dundas BI

The Best Business Intelligence Software for Enterprises

Business Intelligence Software TrustMap™ for Enterprises (1,001+ employees)



Based on 749 ratings and trailing 30 days of pageviews
on TrustRadius.com through 6/5/2016.

trustradius™

Top-Rated Products for Enterprises

- » Tableau Desktop
- » Microsoft BI
- » Tableau Server
- » TIBCO Spotfire
- » Alteryx Analytics
- » SAP BusinessObjects Lumira
- » GoodData
- » Dundas BI

Methodology

The TrustMap™ compares Business Intelligence software products, based on end-user satisfaction ratings and research frequency. The question of how to bound the BI space is always difficult. Although this guide talks about a broad range of topics and products that are related to BI, the focus is firmly on products that are designed to take operational and other corporate or external data and analyze it in order to make decisions and provide strategic guidance to the business. Although they are discussed in the guide, technologies like data warehouses, Hadoop-related storage technologies, data blending tools, and functionally specific tools like pipeline analysis products for sales, are not included on the TrustMaps, nor are there product profiles for these products.

To be included in this guide and on a particular TrustMap™, a product must have at least 15 reviews overall, and at least 5 reviews and ratings in that segment. Additionally, at least 15% of the product's ratings and reviews must come from reviewers in that segment (to show sufficient segment focus).

For this guide, we have segmented data by the size of the company using the product, based on number of employees. Our market segments are:

- » Small Businesses: 1-50 employees
- » Mid-Size Companies: 51-1,000 employees
- » Enterprises: More than 1,000 employees

We have created each TrustMap on two dimensions:

1. **trScore:** The overall 'likelihood to recommend' rating - a representation of overall satisfaction - by users who have written reviews on TrustRadius.
2. **Research Frequency:** This metric reflects how often a product is researched by prospective buyers on TrustRadius. It is measured by monthly unique page views of pages associated with a given product, including product descriptions, reviews and comparisons. Products with large installed bases or those experiencing significant growth momentum are evaluated more frequently.

The red dotted line depicts the median user rating. All products above the red line are classified as "Top Rated". Products further to the right on the graphic are those products that are most frequently searched for on TrustRadius. High search volumes may indicate either positive or negative sentiment – people evaluating a product either to select or replace.

About TrustRadius reviews

All of the reviews on TrustRadius are from authenticated end-users of the product. Before a review is published, a TrustRadius researcher verifies each reviewer's LinkedIn profile to ensure they are a real user, and vets the review itself to ensure it offers detailed insights about the product. TrustRadius will not publish any review from a vendor's current or former employees or those of any competitors.

In addition to checking the quality and legitimacy of each individual review, TrustRadius is also focused on making sure our data is representative. Vendor-led efforts to invite only known promoters to review them can artificially inflate average ratings and introduce a positive selection bias. Thus, rather than using a simple average for ratings, we have developed a more meaningful, weighted average called the trScore. More information on how the trScore works can be found [here](#).

TrustRadius acquires reviews in a few different ways, including:

- » Direct Outreach: TrustRadius scours the Internet, identifies potential reviewers with experience in products of interest, and reaches out directly.
- » Community Contribution: Those who have used TrustRadius to research software products give back to the community by writing their own review.
- » Vendor Solicitation: Some vendors invite their own customers to write reviews. These reviews are marked "Invited by: Vendor" on TrustRadius. When vendors introduce positive selection bias by inviting only known advocates to write reviews, our trScore adjusts for this bias.
- » Review Programs: TrustRadius offers paid review management programs where TrustRadius works with vendors directly to invite their customer base to review them on TrustRadius. These reviews are subject to the same rules and procedures as any other reviews on TrustRadius, and subject to the same trScore requirements in terms of sample representativeness.

- » In many cases, small incentives are used to increase broad participation and motivate reviewers to write more comprehensive, in-depth reviews. TrustRadius has found that the use of incentives yields reviews from a more diverse set of users (e.g., beyond strong advocates or detractors). Incentives are never tied to a particular response in the review. More information on TrustRadius reviews can be found [here](#).

Beyond ratings

Satisfaction ratings are one factor to consider in your search for a BI solution. It's also important to consider your feature requirements and the particular strengths and weaknesses of each product. The rest of this report provides an evaluation of each software product, including pros and cons, customer demographics, and other insights gleaned from end-user reviews on TrustRadius.

User Ratings and Feedback by Product

Alteryx Analytics

Alteryx Analytics is a self-service data preparation and blending platform, and also provides predictive analytics (built on the R platform), and also provides predictive analytics and geo-spatial mapping capabilities. Alteryx has established itself as a very solid self-service data preparation tool capable of accessing data from multiple sources, and preparing it for analysis by a number of visualization tools like Tableau and QlikView and Microsoft Power BI.

Alteryx Analytics is a Top Rated product in the mid-sized and enterprise segments.

alteryx

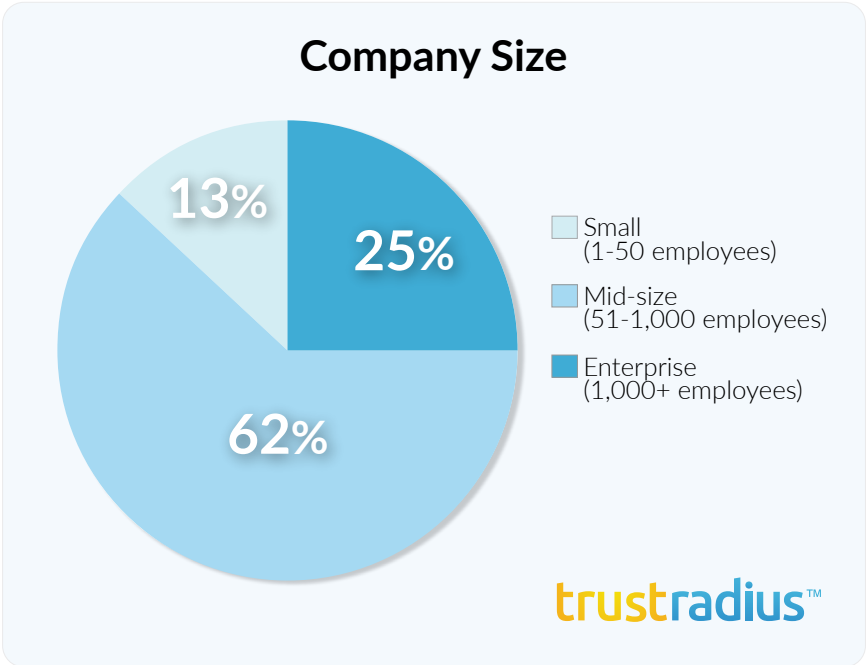


Score 8.7 out of 10



Company status	Private
Customers	300+
Employees	350+
Location	Irvine, CA
Founded	2010
Most compared to	Pentaho; Microsoft BI; Tableau Desktop
Best fit for	Alteryx is a good option for companies with a need for data blending and data modeling before staging the data for visualization in another tool like Tableau, QlikView, Microsoft Power BI, or TIBCO Spotfire.

Alteryx Customer Demographics*



*Customer demographics data is drawn from user profiles and users reviews of this product on TrustRadius. Data may not be available for all reviewers.

Summary of Alteryx Reviews

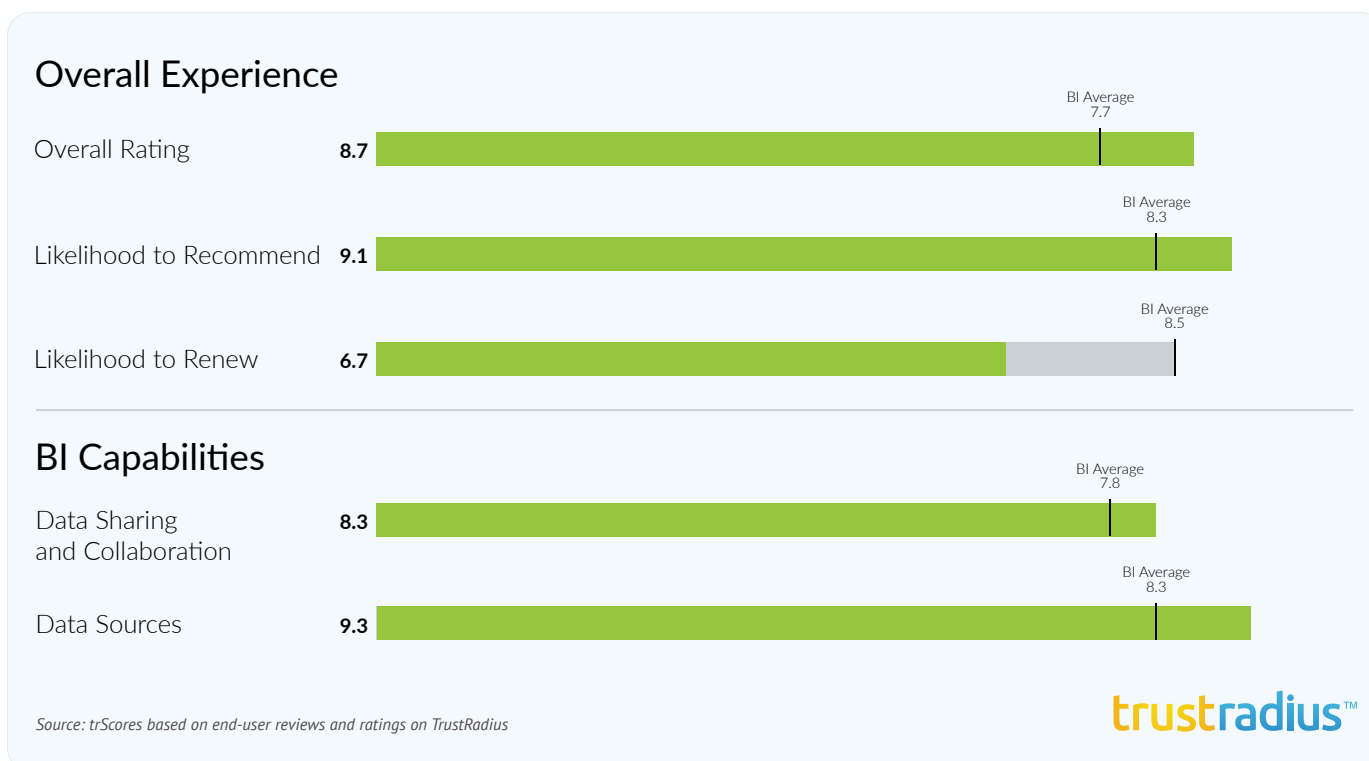
ALTERYX PROS	ALTERYX CONS
Data blending » Very versatile tool for blending and formatting data with an ability to read and write in a multitude of formats. Allows for much more rapid and agile data manipulation than is possible when using MS Excel.	Visualizations » Data visualization is general is not a strength, with users commenting on the poor quality of visualizations necessitating exporting the data to another tool like Tableau. In particular, although the geo-spatial analysis is highly effective, the mapping/charting visualization outputs lag behind those of other tools.
User interface » Very intuitive drag-and-drop user interface making the program easy to learn and use.	Reporting » Some users report difficulties in formatting reports appropriately.
Feature rich » In addition to data blending and preparation, the product also includes predictive analytics, and spatial analytics/mapping.	
Geo-spatial analysis » The geo-spatial capability providing drive-time analysis, and spatial matching for campaign planning, gets very high marks.	

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ALTERYX PROS	ALTERYX CONS
Speed » The solution is praised for its speed in handling process and spatial data. The product can handle millions of records very rapidly.	
Customer support » Users comment on the excellent customer service, and praise the live expert function as an easy way to get immediate help.	

Source: (16) [User reviews of Alteryx](#) on TrustRadius.

Aggregate User Ratings of Alteryx on TrustRadius



Alteryx Response to Reviewer Feedback

Alteryx Analytics is the leading platform for self-service data analytics. It provides analysts with the ability to prep, blend, and analyze all of their data using a repeatable workflow, then deploy and share analytics at scale for deeper insights in hours, not weeks. Analysts can connect to and cleanse data from data warehouses, cloud applications, spreadsheets, and other sources, easily join this data together, then perform predictive, statistical, and spatial analytics using the same intuitive user interface, without writing any code.

Alteryx has invested significant resources into making its platform easy to use for data analysts. Alteryx continues to refine tools for data preparation, blending, analytics, and reporting to make even the most advanced functions (e.g. predictive analytics) more accessible to users of all skill levels.

Alteryx has a robust technology and partner ecosystem that spans over 150 partners in more than 50 countries around the world. Included in those partnerships are comprehensive technology integration with all three of the leading data visualization vendors – Tableau, Qlik, and Microsoft. Hundreds of customers of these three visualization vendors are also customers of Alteryx because Alteryx Analytics combines the robust data preparation and data blending for large and diverse data sources, plus the predictive and spatial analytics that these tools lack. The resulting output from Alteryx Analytics can include the native file format used by all three visualization tools, allowing customers to choose the visualization tool that best fits their needs, rather than trying to replicate advanced data discovery functionality within Alteryx Analytics.

Birst

While in many ways Birst looks like a cloud version of a full-stack product, the company developed a third way between IT-led and agile business analytics. The concept of “networked BI” constitutes a shared virtual analytics layer creating a fabric of data for centralized teams and decentralized end users end users to collaborate, allowing data to be shared and mashed up, without changing the data at its source.

Birst is a pioneer of multi-tenant cloud BI. While the product is cloud-architected, deployment to customers can be in a public or private cloud, or on-premises in the customer data center as the Birst Enterprise Virtual Appliance. Birst is a complete solution with an in-memory columnar data store, and a BI layer comprising a reporting engine, predictive analytics tools, mobile native apps, dashboards, discovery tools, and an open client interface allowing other visualization solutions to plug into that networked data fabric. This open approach was on display when Birst partnered with Tableau in 2015.

Birst is a Top Rated product in the mid-sized company segment.

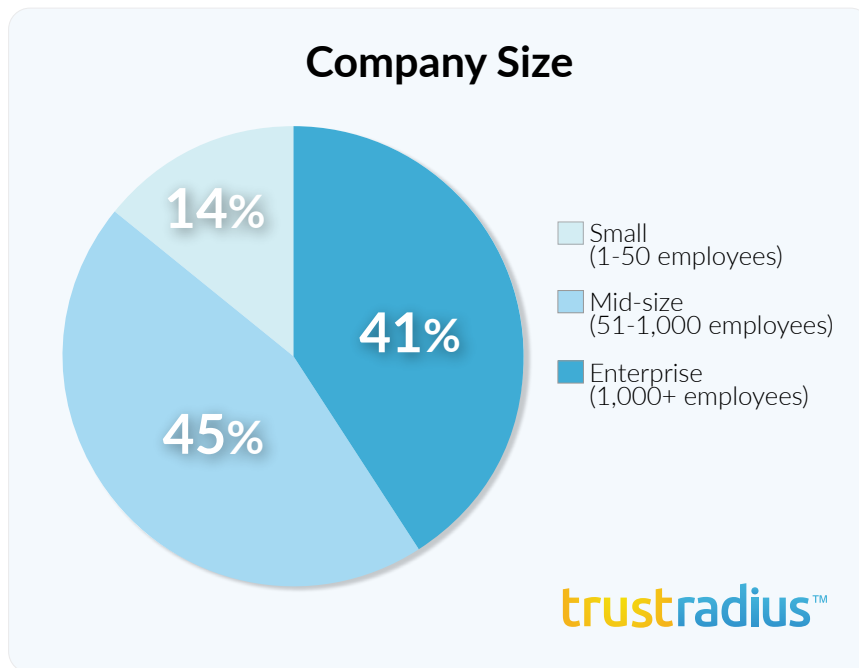


trScore 7.7 out of 10



Company status	Private
Customers	300+
Employees	300+
Location	San Francisco, CA
Founded	2004
Most compared to	Tableau Desktop; QlikView; Microsoft BI
Best fit for	Birst is a pioneer in multi-tenant, cloud BI and a good choice for organizations looking for a cloud-based platform for business intelligence and analytics, that can help organizations looking to analyze complete business process, and operationalize analytics across both decentralized and centralized teams.

Birst Customer Demographics*



*Customer demographics data is drawn from user profiles and users reviews of this product on TrustRadius. Data may not be available for all reviewers.

Summary of Birst Software Reviews

BIRST PROS	BIRST CONS
Data modeling <ul style="list-style-type: none"> » Very easy to create and implement robust data warehouse models. Data modeling is much faster than with legacy BI tools. 	Geo-mapping capabilities <ul style="list-style-type: none"> » Several users feel that the geo-mapping is not as robust as it should be, and that formatting features are particularly rudimentary. (Note: This has been addressed. See Birst comments below).
Reports and dashboards <ul style="list-style-type: none"> » Designing reports and dashboards is fast and easy, and the software provides lots of flexibility. Users can select data based on many dimensions. Visualization capabilities are also excellent. 	Documentation/Online help <ul style="list-style-type: none"> » Online help, documentation and training materials need to be expanded to cut down on number of support tickets and provide more user independence.
Cloud-based system <ul style="list-style-type: none"> » Cloud-based system means that the system can be deployed rapidly, and there is no infrastructure to be maintained. Reports have excellent drill-down and filtering. 	Speed <ul style="list-style-type: none"> » System is sometimes slow, particularly at high data volumes.
Multiple data sources <ul style="list-style-type: none"> » Connects to a wide variety of different data sources including multiple RDSM sources, big data sources and business applications. Specifically several users mention the integration with Salesforce.com. 	Mobile <ul style="list-style-type: none"> » The Birst iPad app doesn't have the full functionality of the browser-based version. Also, there is no Android version. (Note: This has been addressed. See Birst comments below).

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BIRST PROS	BIRST CONS
One-stop shop » Birst is an integrated system with a data warehouse, ETL layer, a business layer, pixel-perfect report creation and dashboards. Users appreciate the breadth of capabilities.	
Customer service » Professional services and customer support teams generally had high marks, although some users feel that the support team is less skilled at dealing with complex issues.	

Source: (42) [User reviews of Birst](#) on TrustRadius.

Aggregate User Ratings of Birst Software on TrustRadius

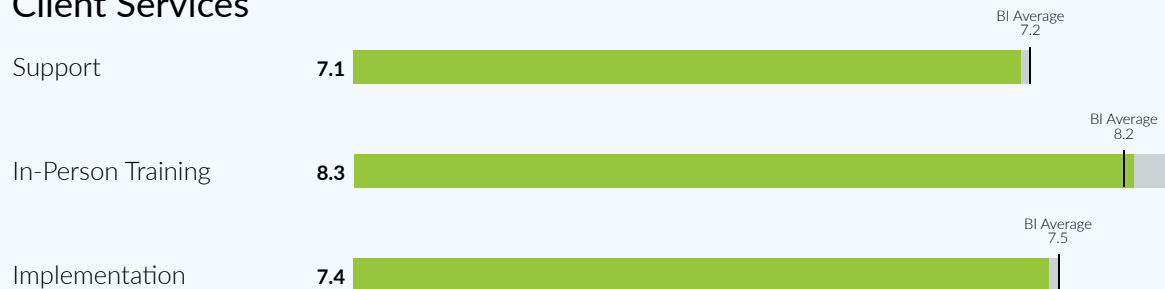
Overall Experience



Reliability



Client Services



BI Capabilities



Source: trScores based on end-user reviews and ratings on TrustRadius

trustradius™

Birst Response to Reviewer Feedback

Birst's cloud-based, multi-tenant architecture enables the creation of virtual BI instances, which can be networked together and governed by consistent business logic. With an adaptive user interface and rapid data refinement, Birst delivers speed, agility and self-service to front-line business users, but with consistent and re-usable business metrics. The end result is an end to siloed decision making.

Traditionally, delivering trusted and reliable data across the enterprise has depended on physical replication of BI infrastructure – not just hardware but also data, metadata, user profiles, system configurations, etc. – making it a time-consuming and expensive effort. Conversely Birst virtualized data across the network of instances, allowing end-user to bring their data into the network and connect it with centralized data, without moving and copying any data. This allows for decentralized independence and 'sandboxing' while providing trust and consistency to data across the organization. Additionally, because the metadata for Birst is consistent from ETL to the semantic layer, Birst automates large portions of ETL, Data Warehousing, and Semantic Layer modeling, accelerating time to value with fewer IT FTEs and skillset requirements than other solutions.

Birst recently extended the capabilities of its Networked BI Platform to include Birst Mobile for Android (Tablet and phone in Q2 2016), iOS Phone, Collaboration, and End-User Data Preparation. Additionally, Birst recent releases have greatly increased the discovery formatting, geo-spatial analytics, and charting, including a full javascript API allowing for any visualization (including D3.JS visualizations) to be directly embedded in Birst dashboards. In combination with EXASOL's high-performance, massively parallel in-memory analytic database, Birst also provides an analytic, networked data tier, which can run in front of back-end systems, such as Hadoop and Amazon Redshift, and which can offer unparalleled speed and seamlessly perform on petabytes of data scale to hundreds of thousands of users.

Chartio

Chartio was founded in 2010 and has been through several rounds of fundraising. The idea behind the company is to build an interface for company data, by direct connecting to company databases to visualize data in real time, bypassing the need for data warehousing. The product is purely web based, and is designed first and foremost for business users lacking the technical skills of data analysts. Chartio tends to be used by smaller companies, rather than large enterprises.

Chartio is a Top Rated product in the small business segment.

CHARTIO

★★★★★

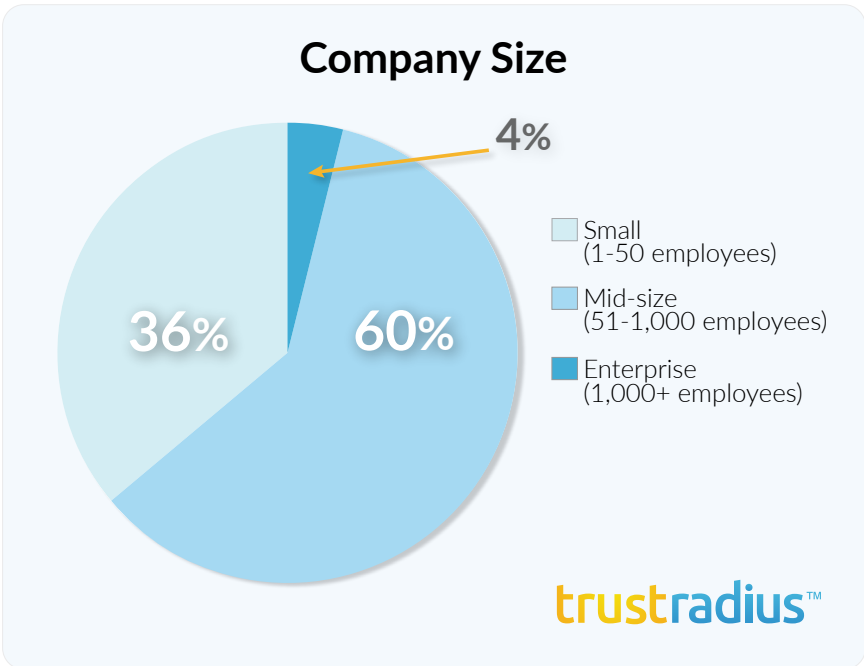
(30)

trScore 7.5 out of 10



Company status	Private
Customers	N/A
Employees	27
Location	San Francisco, CA
Founded	2010
Most compared to	Tableau Desktop; Looker; Geckoboard
Best fit for	Chartio is designed for business users and allows visualizations to be built by direct connecting to databases. The primary target audience is smaller companies.

Chartio Customer Demographics*



*Customer demographics data is drawn from user profiles and users reviews of this product on TrustRadius. Data may not be available for all reviewers.

Summary of Chartio Software Reviews

CHARTIO PROS	CHARTIO CONS
Ease of use <ul style="list-style-type: none"> » The product is very easy to use for non-technical users, with a clean user interface, and no unnecessary features to distract users from their primary tasks. 	Query control <ul style="list-style-type: none"> » Several users say that there is limited control over the frequency and timing of queries and chart updates.
Drag-and-drop query building <ul style="list-style-type: none"> » The Visual Query Engine provides drag-and-drop query building, allowing non-technical users to build visualizations. But it also allows for traditional SQL queries for more complex queries. 	Chart customization <ul style="list-style-type: none"> » Some users complain of not having enough control of chart appearance (graph axis configurability, control over colors and fonts, etc.).
Broad data source support <ul style="list-style-type: none"> » There is support for a broad range of databases including Amazon Redshift and Google BigQuery, Hadoop, Cassandra, and business applications like Salesforce and Google Analytics. 	PDF formatting <ul style="list-style-type: none"> » A couple of users mention that there are formatting issues when reports are delivered in PDF format.
Data blending <ul style="list-style-type: none"> » Data from different sources can be combined into a single chart, which can then be explored using filters for drill-down. 	
Customer support <ul style="list-style-type: none"> » The company gets very high marks for responsive and knowledgeable customer support. 	

Source: (25) [User reviews of Chartio](#) on TrustRadius.

Aggregate User Ratings of Chartio Software on TrustRadius

Overall Experience



BI Capabilities



Source: trScores based on end-user reviews and ratings on TrustRadius



Chartio Response to Reviewer Feedback

N/A

Dundas BI

Dundas BI is a new full-stack Business Intelligence offering from Dundas Data Visualization. The product was released in 2014 and represents a major shift away from the dashboard platform and charting components which were the company's main offering before that. The product set provides a unified front-end to a company's data with ad-hoc reporting, visual data discovery, dashboarding, paged reporting, and data preparation (ETL) and blending capabilities. Along with direct data connectivity, it also includes an in-memory database for faster analytics. The product is built on the .NET platform and integrates with the entire suite of Microsoft products, including the Microsoft BI components. The product has connectors to over 25 data sources, including MPP databases like Google BigQuery, Amazon Redshift, in addition to SQL databases and business applications.

Dundas BI is a Top Rated product in all three company size segments.

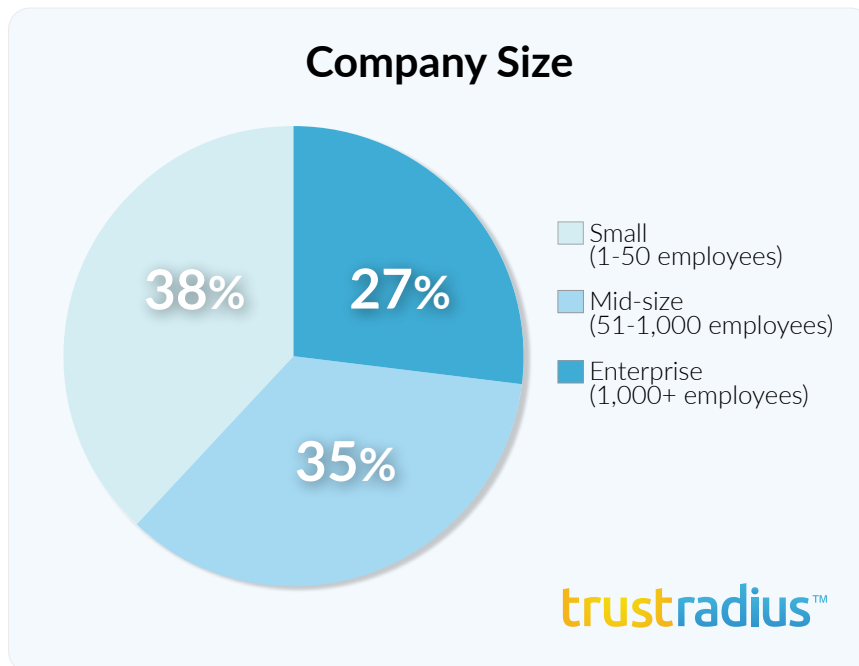
Company status	Private
Customers	N/A
Employees	60+
Location	Toronto, Canada
Founded	1992
Most compared to	QlikView
Best fit for	This is a relatively new product, and Dundas provides a lot of support for the embedded use case. Its broad range of functionality, and focus on a dedicated business user's experience make it a contender for companies looking for excellent visualization coupled with strong connectivity to multiple data sources and ETL.



Score 8.5 out of 10



Dundas BI Customer Demographics*



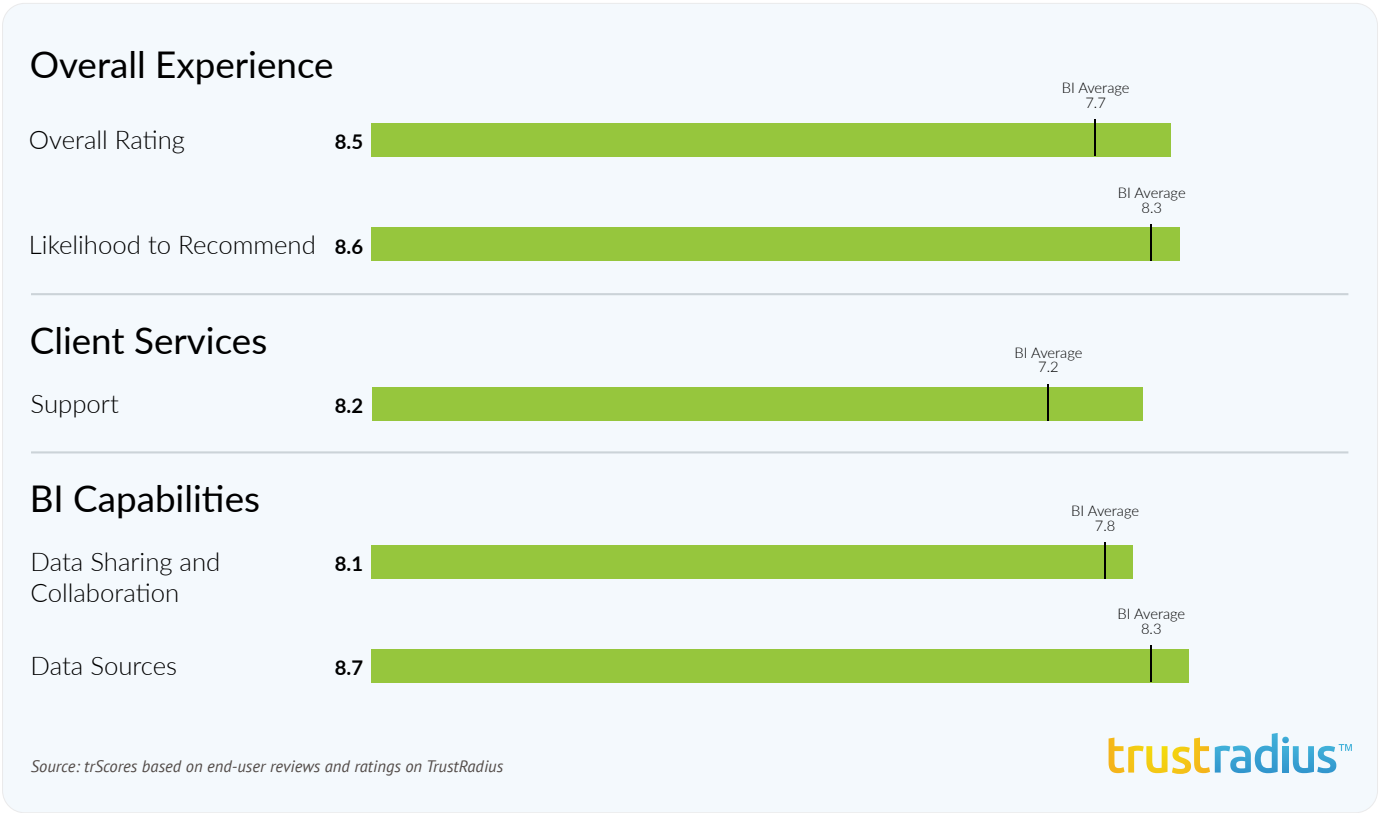
*Customer demographics data is drawn from user profiles and users reviews of this product on TrustRadius. Data may not be available for all reviewers.

Summary of Dundas BI Software Reviews

DUNDAS BI PROS	DUNDAS BI CONS
Ease of use <ul style="list-style-type: none"> » Very flexible, easy-to-use tool with a well-designed UI. Product is also very easy to deploy. 	Product maturity <ul style="list-style-type: none"> » This is a relatively new product, and still has some missing functionality and rough edges.
Connectors/API <ul style="list-style-type: none"> » A large number of users comment on the ease of connecting to a very large number of heterogeneous data sources either through pre-built connectors, or by building integrations with the API. The powerful API includes .NET, JavaScript, and REST. 	Documentation and tutorials <ul style="list-style-type: none"> » Several customers say more documentation and tutorials are needed both for business users and especially for developers. In particular, the API needs to be more fully documented. Also, there is no user community.
Visualizations <ul style="list-style-type: none"> » Very good, flexible and customizable visualization capabilities, although some users would like to see more chart types like radar charts. 	Learning curve <ul style="list-style-type: none"> » Although the product is well designed and relatively easy to use, it can be intimidating to new users as there is a learning curve to get comfortable on the product.
HTML5-compliant <ul style="list-style-type: none"> » The product is HTML5 compliant which makes it possible to create re-sizeable dashboards that can be displayed in a variety of form factors. 	
Support <ul style="list-style-type: none"> » Dundas provides excellent quality support with hands-on WebEx sessions to take control of user's screen when needed. It's clear that this is a high priority for the company. 	

Source: (26) User reviews of Dundas BI on TrustRadius

Aggregate User Ratings of Dundas BI Software on TrustRadius



Dundas Response to Reviewer Feedback

Dundas BI is a modern full stack BI and Analytics platform designed to enable the creation of custom analytical applications. The ability to quickly design your own analytical application that works exactly the way you need it, coupled with Dundas BI's built in adaptive interface that automatically adjusts the experience for each user, is what makes for higher adoption rates and greater reach. With Dundas BI you can make sure more people (not just senior management and analysts) are getting the data they need the way they need it, leading to better data driven actions by everyone. Dundas BI combines the best of both "IT led" and "business self-service" worlds allowing the business and IT to move faster together.

In order to be able to build any analytical application that may work for your business, Dundas BI provides unrivaled flexibility and is committed to support and enable you to reach your goals faster. Dundas is constantly adding new samples and tutorials for both business users and developers. Training videos have been made public and are available under: <http://www.dundas.com/support/videos/>. API documentation is updated as well and new samples are added on an ongoing basis. Dundas encourages you to work with our team to achieve better outcomes with your projects.

Dundas BI is rapidly evolving with 2 major releases per year. It provides more functionality than data discovery tools specifically for large-scale solutions, including security and access management, scheduling, alerting, collaboration and data preparation.

Entrinsik Informer

Entrinsik Informer is a business intelligence/ reporting solution used by over 1,500 customers. Users can query, blend, and analyze data from multiple sources using one intuitive web interface. There is no need to copy data to a cube or go through a complex ETL process for reporting and data analysis. End users are empowered to securely build new or customize existing reports and dashboards on demand using real-time data.

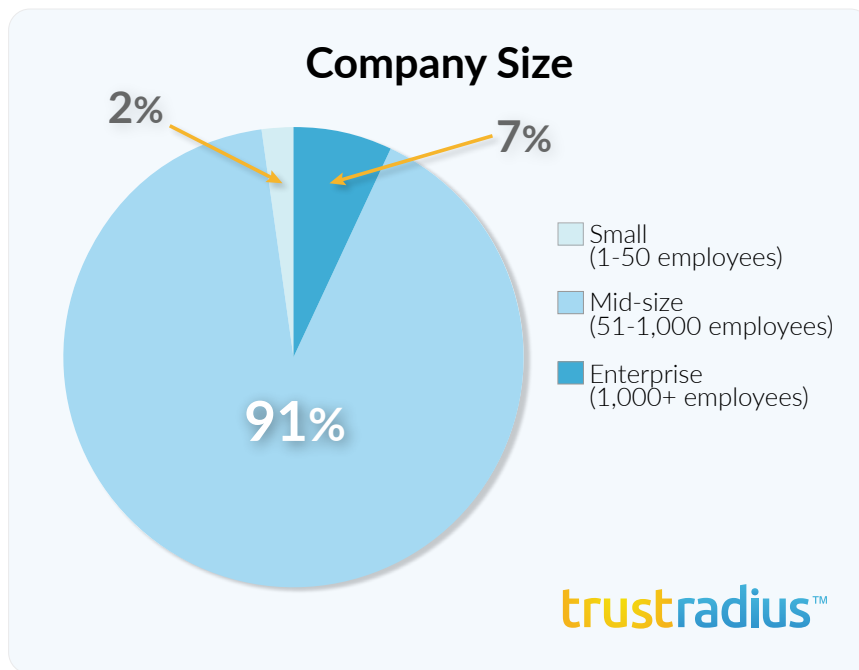
This product has a loyal user base and has a strong presence in the Higher Education vertical market in particular, in addition to the Insurance, Healthcare, Public Safety and Manufacturing verticals.

Entrinsik Informer is a Top Rated product in the mid-sized company segment.

Company status	Private
Customers	1,500+
Employees	30+
Location	Raleigh, NC
Founded	1984
Most compared to	Tableau Server; SAP Crystal Reports; QlikView
Best fit for	Informer is used by customers in a variety of industries where there is a strong need to manage large volumes of operational data. Typical customers have limited IT support and a relatively non-technical user base.



Entrinsik Informer Customer Demographics*



*Customer demographics data is drawn from user profiles and users reviews of this product on TrustRadius. Data may not be available for all reviewers.

Summary of Entrinsik Informer Reviews

ENTRINSIK INFORMER PROS	ENTRINSIK INFORMER CONS
User interface <ul style="list-style-type: none"> » Drag and drop user interface is easy to use and non-technical end users can design their own reports. » Reports can be written without knowledge of SQL. » Power users can create complex reports using JavaScript & SQL statements. 	Data speed issues <ul style="list-style-type: none"> » The ability to process very high data volumes is one of the most significant issues currently reported by reviewers.
Security <ul style="list-style-type: none"> » Flexible security settings restricting what data sources, files and fields users can access (although some users say that this functionality is too complex). » Security audit reporting is very helpful. Very good enhancements in latest version 4.4.1. 	Dashboards <ul style="list-style-type: none"> » Many users feel that the dashboards are a great start, but that there is still some room to grow. In particular, they would like to see more visualization and charting options.
Customer support <ul style="list-style-type: none"> » Customer support is highly responsive. » Company listens to customers and frequently incorporates fixes/improvements in releases. 	Training and documentation <ul style="list-style-type: none"> » Documentation of the product is inadequate, particularly in some more advanced areas. » Several users suggest direct training classes on these more advanced topics.
Report delivery and scheduling <ul style="list-style-type: none"> » Reports can be scheduled to be delivered in almost any format. » Report scheduling eliminates the need to run reports manually and saves a lot of time. 	

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ENTRINSIK INFORMER PROS	ENTRINSIK INFORMER CONS
JavaScript » The ability to write JavaScript into reports to manipulate the data is a great feature.	
Value for Money » Informer is relatively inexpensive. » Ease of use means that it delivers exceptional ROI.	

Source: (74) [User reviews of Entrinsik Informer](#) on TrustRadius.

Aggregate User Ratings of Entrinsik Informer on TrustRadius

Overall Experience



Reliability



Client Services



BI Capabilities



Source: trScores based on end-user reviews and ratings on TrustRadius

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Entrinsik Response to Reviewer Feedback

We are thrilled that Entrinsik Informer has become a top rated product on TrustRadius and we remain committed to providing solutions that equip organizations with insights previously seen as too hard or time consuming to obtain. We are proud to receive such positive reviews of Informer for enabling organization-wide data ownership in addition to delivering exceptional ROI, ease of use, robust security, strong reporting capabilities, and highly responsive customer support.

The Informer development team is currently hard at work on the newest version of Informer, currently in Alpha testing and scheduled for release later this year. Informer 5.0 dramatically expands the visual analytical capabilities of Informer while delivering an updated, modern user interface providing a sleek, streamlined, intuitive experience for all customers. The new underlying system architecture dramatically improves upon the usability, speed, and efficiency of the platform and allows for large amounts of data to be brought into the system with high performance. This next generation of Informer will also have a Discover feature where Informer will automatically and intelligently provide visuals to the user based on simple field selections, thereby allowing the user to glean insight into their data seamlessly. In addition, the Entrinsik team will continue to provide updated training materials via an enhanced Informer Support Center including user guides, videos and training classes. Entrinsik will be holding an Informer User Conference (ICON) scheduled for April 2017 in Raleigh, NC. For more information, contact sales at sales@entrinsik.com.


GoodData

GoodData is, along with Birst, one of the original multi-tenant, cloud analytics offerings in market. The platform is an end-to-end solution with ETL, big data staging, and massively scalable data warehousing capabilities. It also includes predictive capabilities along with visualization.


Their deployment architecture is less compelling for departmental use cases such as sales and marketing, and the company is now focused on the “Powered-By” delivery model for ISVs needing embedded analytics and for enterprises looking for ways to commercialize analytics by building data products and packaged analytics.

It also includes tools to measure engagement and user adoption to help inform the ongoing roadmap.


GoodData is a Top Rated product in the mid-sized company and enterprise segments.



GoodData



(29)



Score 8.1 out of 10

★ TOP ★

★ RATED ★

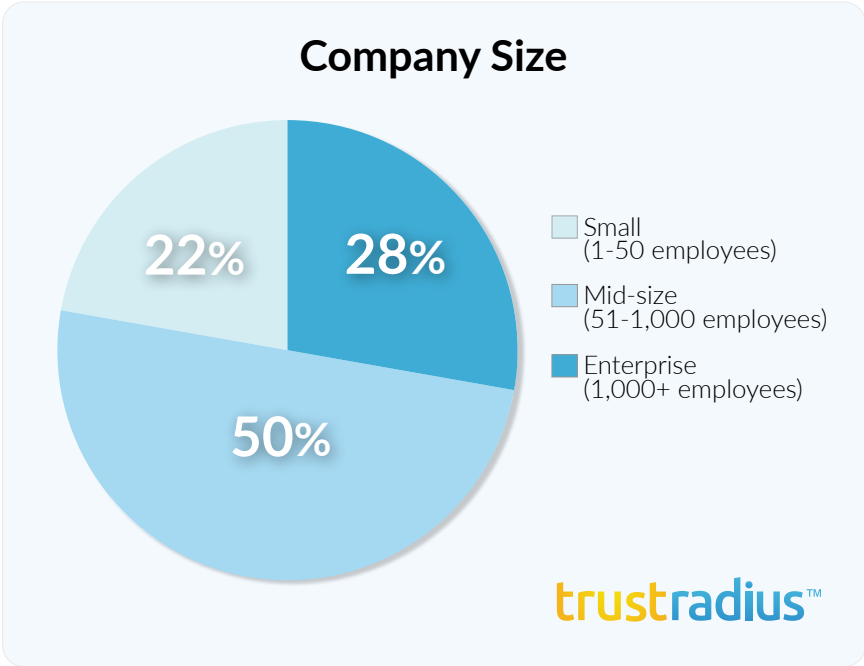
BUSINESS INTELLIGENCE

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★ 2016 ★

Company status	Private
Customers	50,000+ active organizations as tenants
Employees	300
Location	San Francisco CA
Founded	2007
Most compared to	Tableau Desktop; Birst; Domo
Best fit for	GoodData’s strength is as an embedded or white-labeled application under their “Powered By” program. This is targeted both to ISVs and to enterprises that wish to create and distribute analytics out to internal and external customers. This model has made up about 50% of the company’s business, and is expected to grow.

GoodData Customer Demographics*



*Customer demographics data is drawn from user profiles and users reviews of this product on TrustRadius. Data may not be available for all reviewers.

Summary of GoodData Reviews

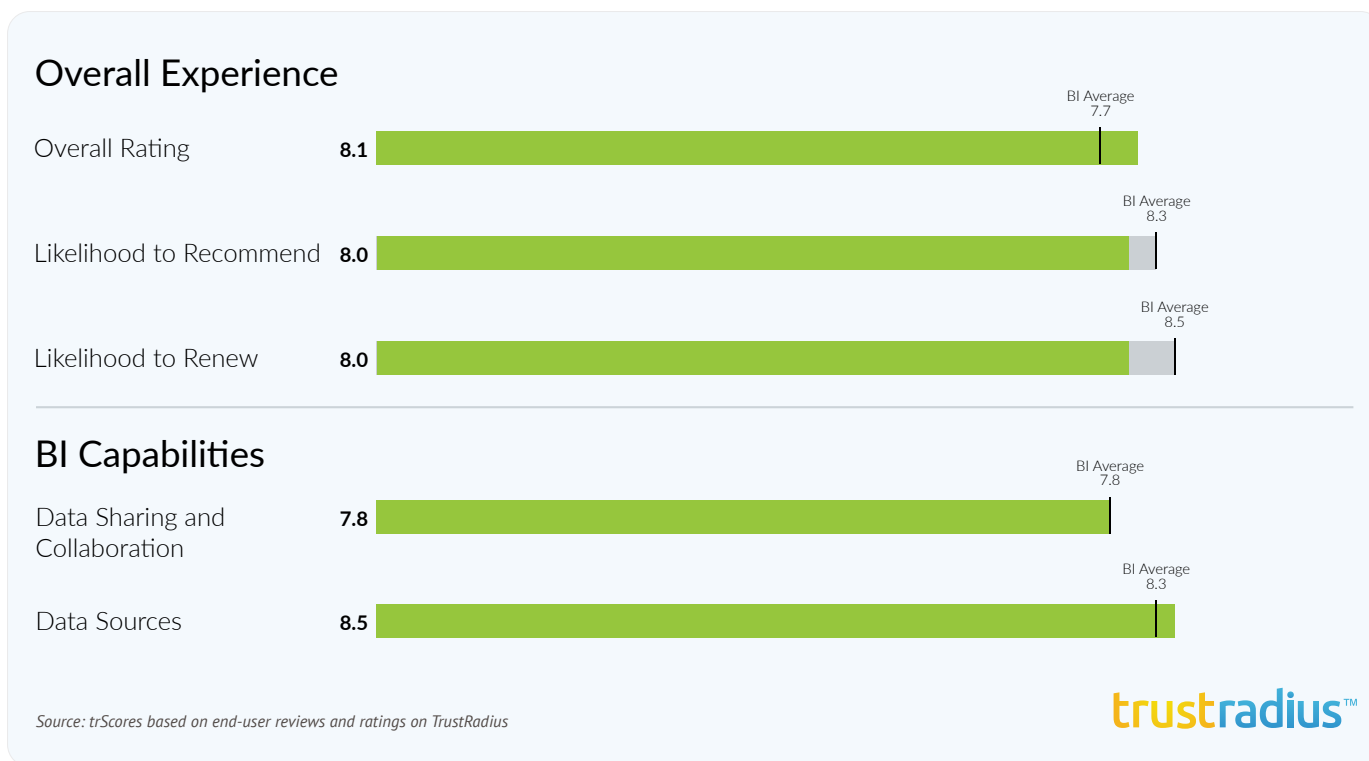
GOODDATA PROS	GOODDATA CONS
Standard reporting <ul style="list-style-type: none">» Powerful customizable dashboards, KPIs and reports based on multiple data sources, both internal and external datasets.	Difficulty of use <ul style="list-style-type: none">» Some non-technical users struggle with basic report generation.
Integrations <ul style="list-style-type: none">» Excellent pre-built integrations to major business applications like Pardot, Zendesk and Salesforce. Extensive APIs for integrating within and around enterprise applications.	Report customization <ul style="list-style-type: none">» Some users say reports and dashboards are difficult to customize with few formatting options available.
Fast processing of large data volumes <ul style="list-style-type: none">» Very strong ability to handle large volumes of data from many different sources at high speed due to in-memory processing.	Implementation <ul style="list-style-type: none">» Implementation is complex requiring help from Professional Services.
White label version <ul style="list-style-type: none">» Powered-by, white label solution can accelerate the deployment and development of data product tiers, including dashboards and ad-hoc reporting for customers.	Cloud model not for everyone <ul style="list-style-type: none">» While the product is HIPAA, and SOC Type 2 compliant, and TRUSTe certified, some highly regulated enterprises are reluctant to adopt cloud solutions.

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GOODDATA PROS	GOODDATA CONS
Analytical analyzer » The drag-and-drop visualization layer has been a major source of development and now allows business users to create powerful visualizations without assistance from IT.	
Customer service » Support and customer service receive generally favorable ratings.	

Source: (18) [User reviews of GoodData](#) on TrustRadius.

Aggregate User Ratings of GoodData on TrustRadius



GoodData Response to Reviewer Feedback

“GoodData is uniquely focused on helping every enterprise transform into digital businesses whose analytics drive revenue.” — Roman Stanek, Founder & CEO

IBM Cognos

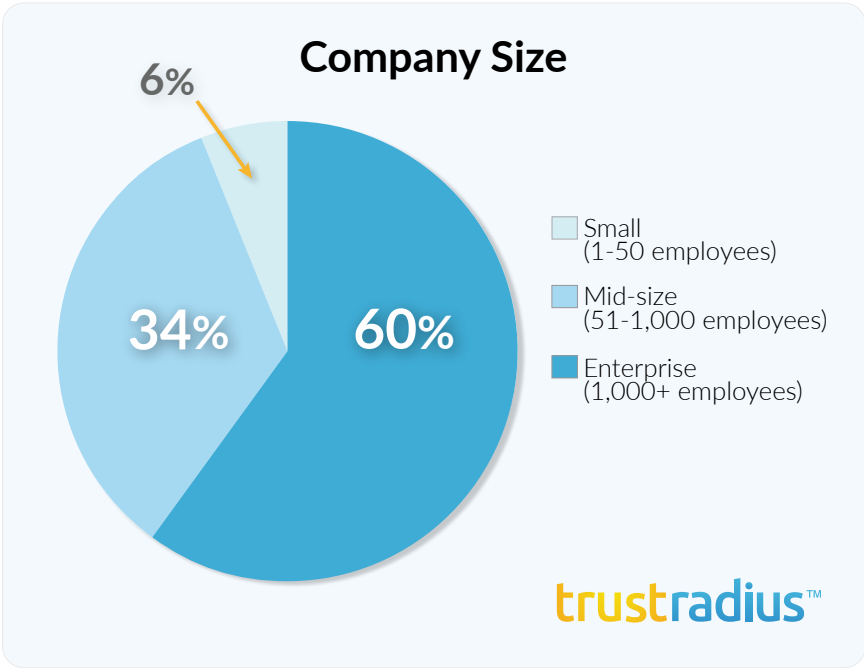
IBM Cognos Business Intelligence version 10 is an established product with a large user base. It is a full-featured platform comprising Query Studio, Report Studio, Analysis Studio and Event Studio along with some newer tools for Microsoft Office integration, full-text search and dashboards. While this technology is effective and very reliable, especially for very large enterprise deployments, TrustRadius reviews indicate that the platform is expensive and requires a large technical staff to deploy and maintain. This platform is very mature and represents established enterprise BI. However, In December of 2015, IBM released a redesigned version of Cognos Business Intelligence rebranded Cognos Analytics (version 11), which is based on IBM's new design thinking principles. This is a welcome move towards cloud-based, more agile, user-centric BI for cloud or on-premises deployment. Cognos Analytics adds natural language search for navigation and to accelerate data modeling and dashboarding for business users.



The position of IBM Cognos BI on the TrustMap does not reflect this newer offering as it has been generally available for just a few months. TrustRadius is working to gather reviews of the new offering.

Company status	Public
Customers	N/A
Employees	377,000+ (entire company)
Location	Armonk, New York
Founded	1911
Most compared to	Tableau Desktop; Microsoft BI; QlikView
Best fit for	IBM Cognos Business Intelligence is an enterprise “full-stack” solution, and has recently undergone a major new re-design. The new platform is rebranded Cognos Analytics. It is still the same platform under the hood, but the user experience is completely different and is similar to Watson Analytics. TrustRadius will endeavor to get early reviews of the new version to help provide guidance.

IBM Cognos Customer Demographics*



*Customer demographics data is drawn from user profiles and users reviews of this product on TrustRadius. Data may not be available for all reviewers.

Summary of IBM Cognos Reviews

IBM COGNOS PROS	IBM COGNOS CONS
Very complete solution » Very complete set of reporting capabilities with strong interoperability between the different studios in the suite.	Report visuals » Standard reports are “flat and bland” without much visual interest, and customization is not easy.
Report creation and data source connectivity » Report Studio can create clear static reports against transactional data as well as data warehouses. Reports can be built on data from a wide variety of data sources.	Product complexity/outdated user interface » This is a large, complex, enterprise solution and is very difficult for business users to navigate via the UI. It is really designed for IT specialists, and requires a technical staff to maintain and provide value to business users. <i>Note: Cognos Analytics has been designed to overcome precisely this issue and is designed with business users in mind.</i>
Report scheduling » Very easy to schedule report delivery/bursting and report bursting to multiple different users	Visualization » Several users comment on the limited data visualization capabilities of the product; however Cognos Analytics and IBM Watson will go a long way to overcoming this issue. » IBM Note: As of 10.2.1 we offer the RAVE engine which provides a number of new visualizations and allows organizations to purpose build visualizations for their needs.

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IBM COGNOS PROS	IBM COGNOS CONS
<p>Integration to enterprise directories</p> <ul style="list-style-type: none"> » Cognos integrates very well to ActiveDirectory and LDAP corporate directories. 	<p>Browser support issues</p> <ul style="list-style-type: none"> » The product has been designed specifically for the MS IE browser and there is no or limited support for other browsers. » <i>IBM Note: As of 10.1.0 the entire product is supported with Firefox. As of 10.2.X other key areas such as report studio, Cognos Workspace, Cognos Workspace Advanced, Cognos Connection and Administration are all supported with Chrome and Safari</i> » <i>IBM Note: IBM Cognos Analytics is browser agnostic – Safari, IE, Chrome, Firefox</i>
<p>Framework manager</p> <ul style="list-style-type: none"> » Data modeling in Framework Manager, the central metadata manager, is a strength, but data models are not available to anything other than Cognos reports. » <i>IBM Note: IBM Cognos Analytics has added an integral capability for business users to build their own data modules that are easily sharable and combinable to complement Framework Manager</i> 	
<p>Report drill-down</p> <ul style="list-style-type: none"> » Ability to slice and dice data in reports and drill down to granular data is very strong. 	

Source: (36) [User reviews of IBM Cognos](#) on TrustRadius.

Aggregate User Ratings IBM Cognos on TrustRadius

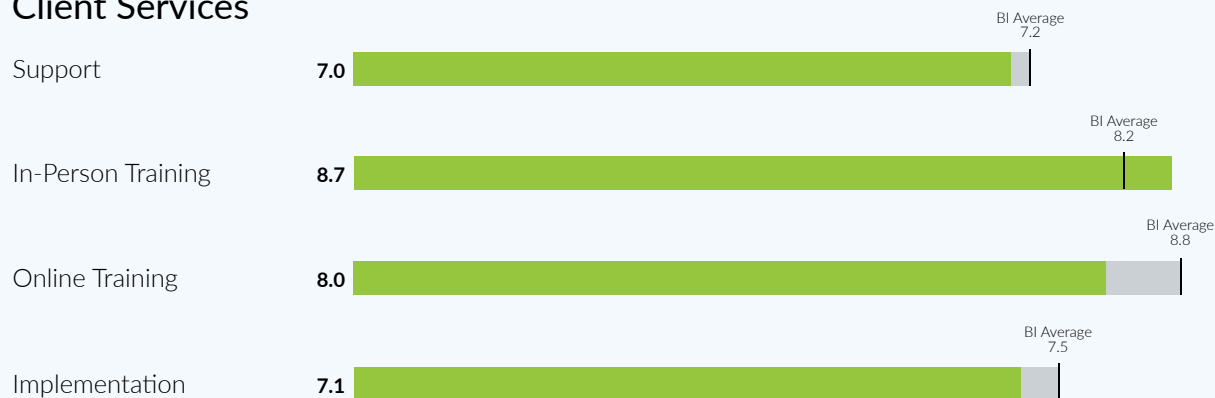
Overall Experience



Reliability



Client Services



BI Capabilities



Source: trScores based on end-user reviews and ratings on TrustRadius

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IBM Response to Reviewer Feedback

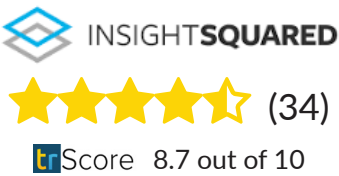
With Cognos Analytics, the new upgrade to Cognos Business Intelligence, IBM has infused intelligence to change how people engage with data. It is a smart BI platform that delivers self-service analytics and managed reporting within a unified, governed and scalable environment. This new release keeps all the value and strength of Cognos BI but with an entirely new user experience.

A search-based experience delivers faster navigation as the system automatically finds data and pre-built content using comprehensive indexing and easy filtering. A search based interface automates the creation of interactive visualizations, dashboards and data modules that business users can build independently. Dashboards can be built directly from uploaded files or data sources without the need for modeling. The experience is completely web-based (wide range of browsers supports) and works the same on a desktop or an iPad.

Cognos Analytics makes it easy to connect to data sources, cleanse/prepare and join data. A new interface to manage data connections and users streamlines administration so departments can be self-managing. Cloud options make it extremely fast and easy for teams to get started using Cognos Analytics.

Cognos Analytics enables organizations to deliver robust analytic capabilities to all users with one integrated analytic environment. Users can get the information they want how and when they want it and easily built or re-use content developed by others. The ability to quickly share insight across the organization leads to smarter decisions and aligns the organization.

InsightSquared



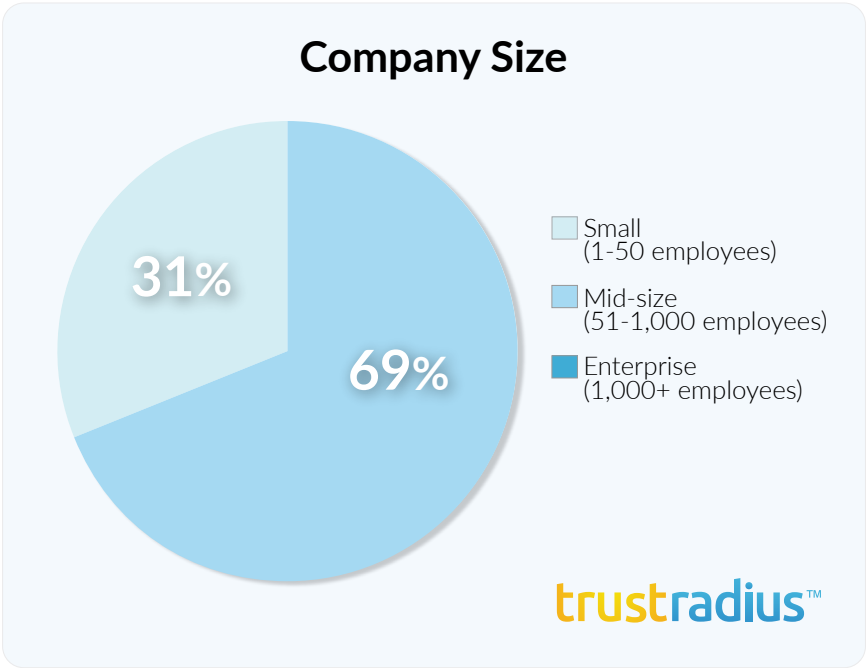
InsightSquared is a sales performance analytics solution, and not a general-purpose BI tools like the others in this guide. Therefore, it is not included in the TrustMaps. However, InsightSquared performs many of the functions of BI data visualization tools for the Sales use case specifically – it offers sales forecasts, KPI tracking, pipeline management, and multi-data source reports. The product competes with data visualization tools like Tableau when companies are specifically looking to better explore and understand sales data.

On TrustRadius, for example, InsightSquared is most often compared to Tableau Desktop, Domo and QlikView. It is sometimes, though less often, compared to Sales technology products.

The product was recently included in the TrustRadius report called [How to Navigate the Sales Technology Landscape](#).

Company status	Private
Customers	N/A
Employees	170
Location	Boston, Massachusetts
Founded	2010
Most compared to	Tableau Desktop, Domo, QlikView
Best fit for	InsightSquared is a good option for small to mid-market companies looking for a tool to support sales analytics, pipeline management, trend analysis, and sales forecasting, and for companies looking to more easily access and understand data from Salesforce.

InsightSquared Customer Demographics*



*Customer demographics data is drawn from user profiles and users reviews of this product on TrustRadius. Data may not be available for all reviewers.

Summary of InsightSquared Reviews

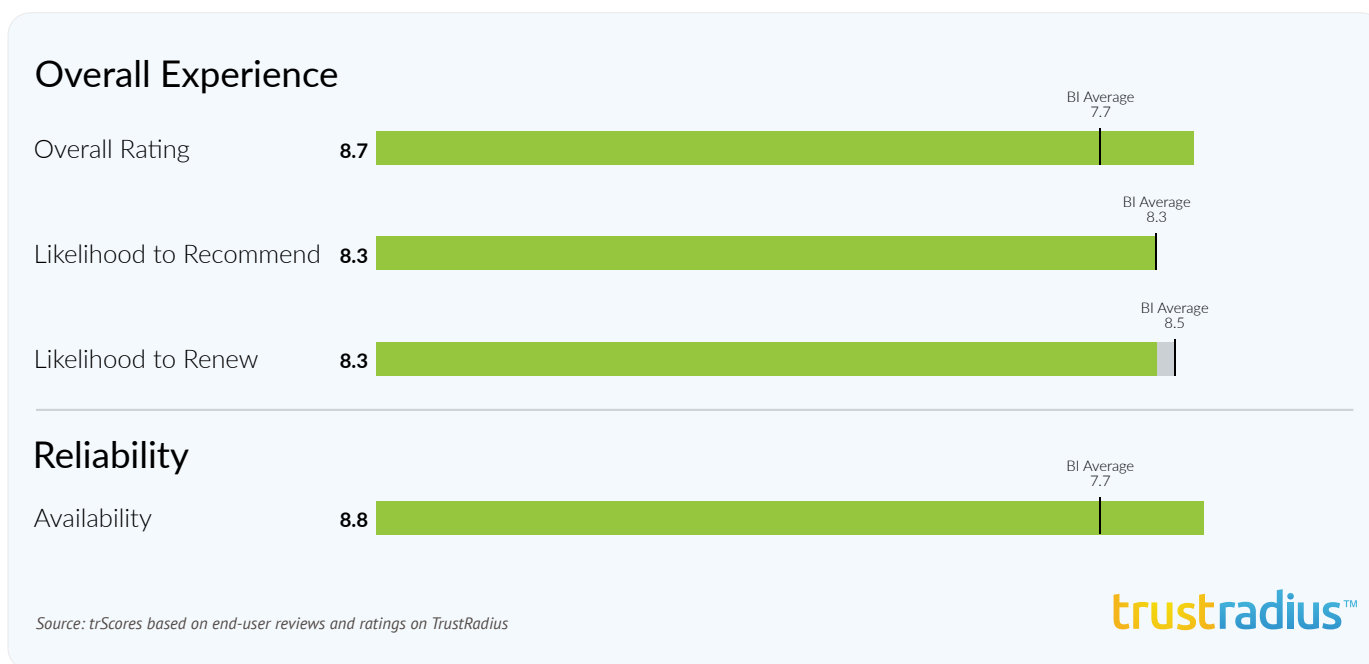
INSIGHTSQUARED PROS	INSIGHTSQUARED CONS
<p>Depth of reporting / insights for Sales</p> <ul style="list-style-type: none">» Users said InsightSquared made it easier for them to access and understand sales data, compared to using Salesforce analytics (or other CRM analytics) alone.» Sales reps liked the ability to track their individual performance against goals, prioritize tasks, and forecast their commissions.» Managers and executives liked the ability to discover trends in the data more easily, track and rank the progress of individual reps, forecast sales, and monitor the sales pipeline.	<p>Speed of data sync</p> <ul style="list-style-type: none">» Users would like to see the data sync from Salesforce or other sources occur in real-time versus having a lag time.
<p>Dashboards / visualizations</p> <ul style="list-style-type: none">» Customizable dashboards and visualizations make the data easier to understand and digest. Admins can set up dashboards for other users.	<p>Customization</p> <ul style="list-style-type: none">» The tool can be customized; however, a few users mentioned they would like to be able to customize their instance themselves (rather than requiring support from InsightSquared) when working with custom fields in Salesforce or uncommon sales processes.» A couple of users would like more ability to customize reports themselves.

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INSIGHTSQUARED PROS	INSIGHTSQUARED CONS
Integration with Salesforce and other data sources <ul style="list-style-type: none"> » Users liked that the data gets pulled straight from Salesforce. » Users also mentioned integrations with Bullhorn CRM, QuickBooks, and Zendesk. 	
Ease of use <ul style="list-style-type: none"> » Users said the interface is intuitive and easy to use. 	

Source: (26) [User Reviews of InsightSquared](#) on TrustRadius.

Aggregate User Ratings of InsightSquared on TrustRadius



InsightSquared Response to Reviewer Feedback

User feedback is incredibly valuable for helping InsightSquared continue to deliver the best possible customer experience.

As the leader in Sales Performance Analytics, our mission is to help customers quickly get the answers they need, create data-driven cultures, and win more business. Customer feedback shapes the way we build our product, and we're constantly iterating and improving on the features that matter most.

For example, we're working to make InsightSquared faster and more customizable. With resources dedicated to improving processing, load time, and overall platform speed, customers will get answers closer to real-time than ever before. It's also important for customers to have more

autonomy to tweak the product to fit their needs. In addition to a “Customize” mode and the ability to build reports from scratch, we’re working to make the product even more configurable right from the start.

Over 20,000 Sales Leaders use InsightSquared every day to drive their go-to-market strategies. With a commitment to premier customer service and a best-in-class product, we’re confident that customers will continue to be successful with data-driven insights.

Looker

Looker is a modern, agile BI platform founded in 2012, offering strong self-service capabilities to business users. It is designed to run against scalable SQL-based databases like Amazon Redshift with little help required from IT, and the LookML modeling language allows the data team to define data relationships so that business users can explore the data without needing to understand SQL.

Looker is a Top Rated product in the small business and mid-sized company segments.

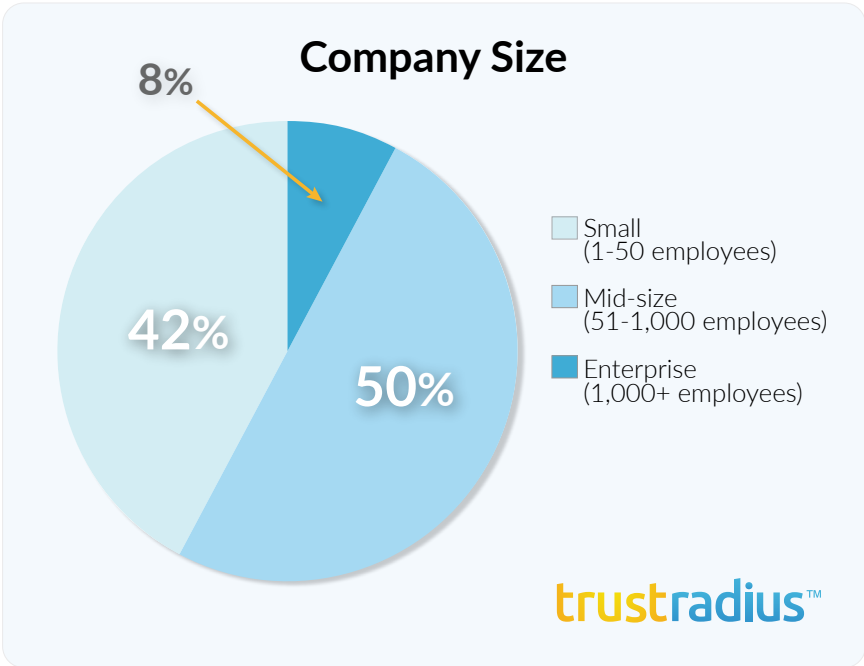


trScore 8.7 out of 10



Company status	Private
Customers	450+
Employees	~200
Location	Santa Cruz, California
Founded	2012
Most compared to	Domo; Chartio; Power BI for Office 365
Best fit for	Looker is a fast-growing new entrant and is a good choice for companies looking for a data exploration tool capable of ad-hoc data exploration of SQL-readable data storage systems. Originally more focused on tabular data, the company is rapidly developing front-end visualization features designed for business users. Looker is also frequently sold for its API, embedding, and OEM functionality.

Looker Customer Demographics*



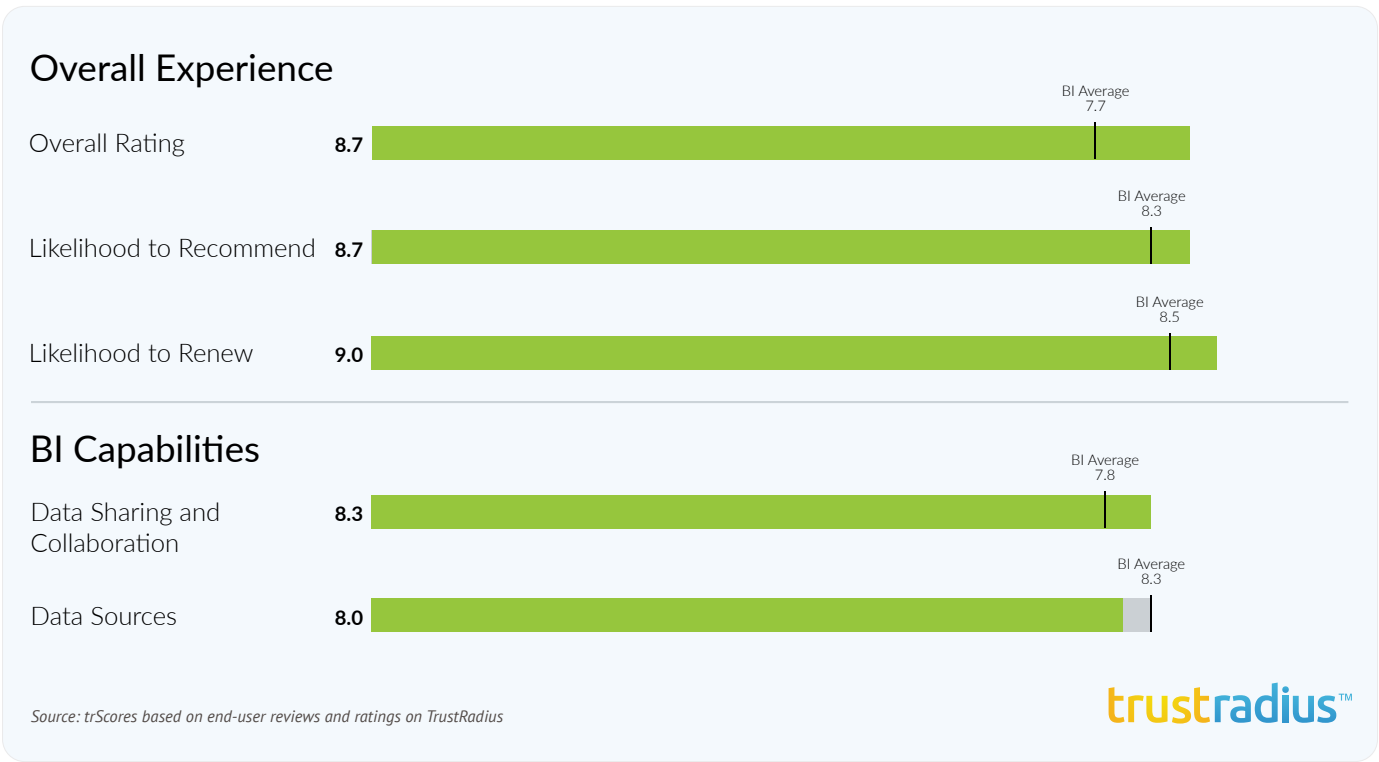
*Customer demographics data is drawn from user profiles and users reviews of this product on TrustRadius. Data may not be available for all reviewers.

Summary of Looker Reviews

LOOKER PROS	LOOKER CONS
Direct querying of database <ul style="list-style-type: none">» Ability to query database directly obviates the need for IT to model and prepare the data through complex ETL processes. No knowledge of the underlying data structure is required to explore the data.	Visualizations <ul style="list-style-type: none">» Although visualizations are adequate, they lack the sophistication of more visualization-oriented products both from the perspective of visualization types and ability to customize colors, etc.
Data modeling <ul style="list-style-type: none">» Look LM is an interesting and flexible approach to data modeling. It is very intuitive and easy to use, even for those with limited SQL knowledge.	Dashboard customization <ul style="list-style-type: none">» The ability to create dashboards is strong, but customizing dashboard layouts with the drag-and-drop tool is difficult, especially if the dashboards are large.
Self-service <ul style="list-style-type: none">» Analytics team can build reporting views for different business groups, so that each team can be self-sufficient and analyze data without assistance from the IT team.	Usability <ul style="list-style-type: none">» Some reviewers point out that the product is really a “power-user” tool and that it can be difficult to use for those with limited technical proficiency, particularly if the data is very complex.
Support <ul style="list-style-type: none">» Extremely responsive and knowledgeable support team. Live chat is a practical and highly effective way to reach the team.	
Collaboration <ul style="list-style-type: none">» It is very easy to share information across the team with the short URL share feature.	

Source: (24) [User reviews of Looker](#) on TrustRadius

Aggregate User Ratings of Looker on TrustRadius



Looker Response to Reviewer Feedback

The feedback cited by reviewers (which is very helpful, so thank you!) is happily in-line with what we'd expect: it consists of front-end problems with aesthetics and ease-of-use for business users.

When Looker was built, we focused on constructing the perfect architecture for repeatable and consistent data extraction. It began as a developer tool, designed to help analysts improve their ability to service the data needs of an entire organization by leveraging recent advances in database technology.

After working with our first customers, understanding their use-cases and the value they derived from Looker, we started to recognize several other fundamental data analytics issues Looker solved, most notably the ability for any business user to conduct their own analysis to inform real-time, day-to-day decision making. Since then, we've expanded our vision and become dedicated to also servicing the needs of the business user. In our last several product releases, which we issues monthly, you'll notice an abundance of features introduced to make the product more attractive for business users, including a number of new and aesthetically improved visualizations, the ability to create custom visualization, a snappy dashboard UI for quick assembly and modification, and a much cleaner interface with more descriptive and intuitive fields to help business users pick-up and understand the tool within minutes.

In summary, we're wrapping up the addition of front-end functionality that make visualizations and usability much simpler for any first-time user, on top of a unique architecture that perfectly leverages all the recent innovations in database technologies, in a way that no other BI platform tool can. If you're curious, please check out www.looker.com to learn more!

Microsoft BI

Microsoft BI benefits from the ubiquity of SQL server, and the set of tools built around the database, including an ETL layer, master data management, data cleansing, and reporting. This combination of tools is an attractive proposition—particularly given the relatively low price point. Visualization and data discovery are now provided by Power BI, which provides data preparation, data discovery and interactive dashboards as a standalone web-based tool. Power BI is a relatively inexpensive tool and has seen rapid uptake by the Microsoft BI user base. However, this product has been designed to compete head-to-head with Tableau and Qlik.

Microsoft BI is Top Rated in the enterprise segment. Note: Microsoft BI, and not **Power BI**, determines position on the TrustMaps. Once we have enough reviews of Power BI, we will add it to the TrustMaps as a separate product.

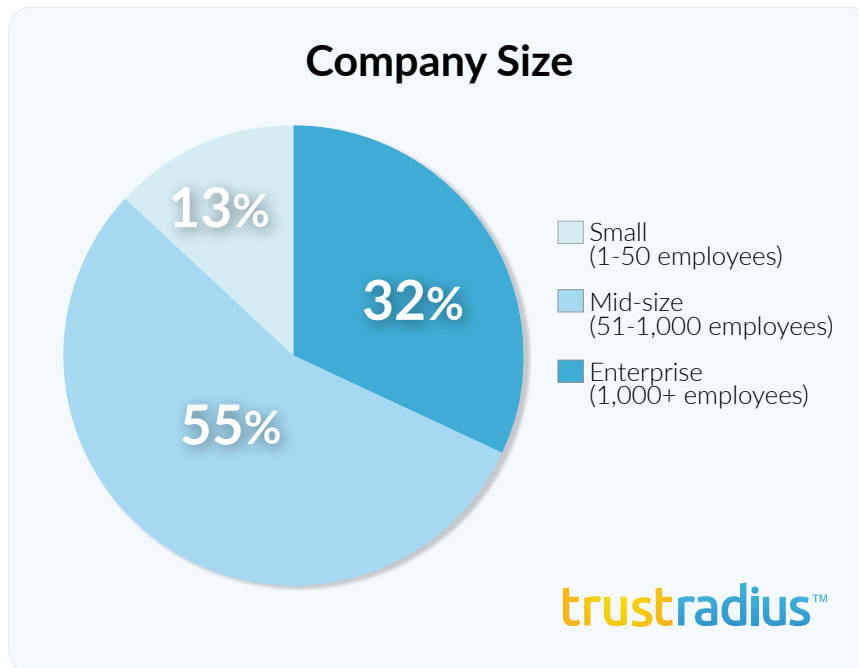


Score 7.6 out of 10



Company status	Public
Customers	N/A
Employees	112,000+ (entire company)
Location	Redmond, WA
Founded	1975
Most compared to	QlikView; Tableau Server; SAP Business Objects
Best fit for	Microsoft BI is a good choice for large Microsoft shops, already using SQL Server across the organization. Power BI is a strong data discovery and visualization tool at a competitive price.

Microsoft BI Customer Demographics*



*Customer demographics data is drawn from user profiles and users reviews of this product on TrustRadius. Data may not be available for all reviewers.

Summary of Microsoft BI Reviews

MICROSOFT BI PROS		MICROSOFT BI CONS	
Integrated suite <ul style="list-style-type: none">» SQL Server for data management, Integration Services ETL, plus the SQL Server RDBMS engine and Analysis Services provide a complete integrated, enterprise solution.» Excellent integration with other MS products like Office, SharePoint, .NET Apps, and Project Server.		Report Builder <ul style="list-style-type: none">» Report Builder, the end user authoring product, lacks basic features such as the ability to move columns within tables.	
ETL <ul style="list-style-type: none">» The Integration Services ETL capabilities for data blending and integration are highly flexible and work well.		Ease of use <ul style="list-style-type: none">» Microsoft BI is an IT enterprise platform, and ease-of-use remains a problem for business users with limited technical skills.	
Excellent value <ul style="list-style-type: none">» The entire suite of applications is excellent value for money compared to competitive options.		Report delivery <ul style="list-style-type: none">» Front-end report delivery is still too dependent on MS Excel and SharePoint.	
Visualizations <ul style="list-style-type: none">» Visualizations have traditionally been weak compared to products like Tableau. These limitations have been substantially reduced however by Power BI, which provides preparation, data discovery and interactive dashboards. Capabilities in this area, however, still lag competitors.			
Azure cloud options <ul style="list-style-type: none">» Microsoft is rapidly migrating their business offerings to Azure. including Microsoft BI.» Hybrid on-premise/cloud data management scenarios are possible for clients who do not want an all cloud solution.			

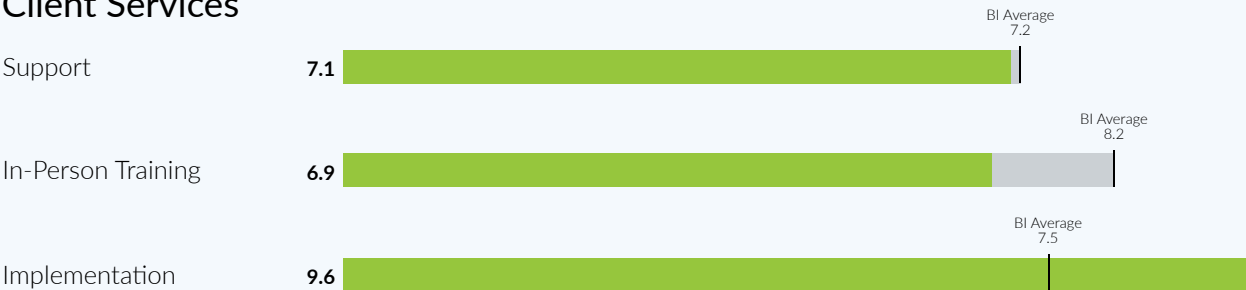
Source: (32) [User reviews of Microsoft BI](#) on TrustRadius

Aggregate User Ratings of Microsoft BI on TrustRadius

Overall Experience



Client Services



BI Capabilities



Source: trScores based on end-user reviews and ratings on TrustRadius



Microsoft Response to Reviewer Feedback

N/A

MicroStrategy

MicroStrategy is an enterprise-level product with a complete set of capabilities including enterprise reporting, self-service data preparation, native columnar database access, including Hadoop, and a strong, more recent visualization offering. MicroStrategy is an older established vendor having been founded over 25 years ago, but the company has done a very good job of keeping the product relevant with strong emphasis on visualization, big data, and mobile capabilities.

MicroStrategy is Top Rated in the mid-sized company segment.



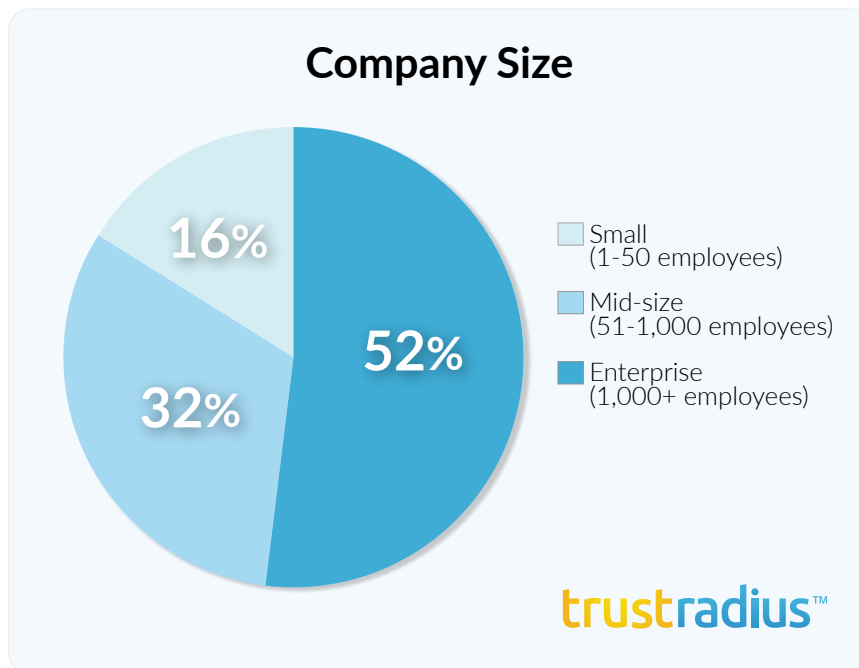
★★★★☆ (99)

 Score 7.2 out of 10



Company status	Public
Customers	4,000+
Employees	3,200+
Location	Washington DC
Founded	1989
Most compared to	Tableau Desktop; Microsoft BI; SAP Business Objects
Best fit for	MicroStrategy is a good option for medium to large enterprises in need of a complete set of business intelligence capabilities that can grow from a single data discoverer, to many thousands of users. It includes reporting, dashboards, and data discovery and visualization across the organization. It has particularly strong mobile capabilities.

MicroStrategy Customer Demographics*



*Customer demographics data is drawn from user profiles and users reviews of this product on TrustRadius. Data may not be available for all reviewers.

Summary of MicroStrategy Reviews

MICROSTRATEGY PROS	MICROSTRATEGY CONS
Excellent mobile capabilities <ul style="list-style-type: none"> » The product has a very good iPad/iPhone app, and allowing executives to monitor KPIs at the swipe of a finger. Product has among the best mobile capabilities of any BI platform. 	User interface <ul style="list-style-type: none"> » Several reviewers commented on the fact that the user interface is dated and needs attention from a workflow and optimization designer.
Standard reporting <ul style="list-style-type: none"> » Very good standard reporting capabilities for KPIs, and regularly scheduled reports, including web delivery and scheduling capabilities. 	IT dependency <ul style="list-style-type: none"> » Business users feel too dependent on developers and IT to make changes to metrics and attributes, which becomes a bottleneck.
Fast processing of large data volumes <ul style="list-style-type: none"> » Very strong ability to handle large volumes of data from many different sources at high speed due to in-memory processing. 	Usability <ul style="list-style-type: none"> » Some reviewers point out that the product is really a “power-user” tool and that it can be difficult to use for those with limited technical proficiency, particularly if the data is very complex.
Dashboards <ul style="list-style-type: none"> » Relatively easy to create custom, visually appealing, interactive dashboards and scorecards. 	Miscellaneous <ul style="list-style-type: none"> » Licensing scheme too complex » Web version different than installed version, with fewer features » Poor documentation
Recent enhancements <ul style="list-style-type: none"> » MicroStrategy 10 is a major new version which replaces Flash with HTML5 and, crucially, improves Analytics Desktop to near parity with Tableau 	

Source: (31) [User reviews of MicroStrategy](#) on TrustRadius.

Aggregate User Ratings of MicroStrategy on TrustRadius

Overall Experience



BI Capabilities



Source: trScores based on end-user reviews and ratings on TrustRadius

trustradius™

MicroStrategy Response to Reviewer Feedback

MicroStrategy 10, released in June 2015, delivers a powerful lineup of new features and enhanced functionality that meets the needs of both business and IT users. With a heavy focus on business user needs, MicroStrategy 10 offers a completely redesigned HTML5 user interface and revamped data discovery workflows. Version 10 empowers business users to make sense of large data volumes and get answers to tough questions independently using powerful self-service data visualization and analytics tools. Offering complete end-to-end BI capabilities, MicroStrategy 10 makes it possible to deploy analytics via an IT-centric, centralized metadata, or directly through business teams via decentralized deployment options.

- » The MicroStrategy 10 release also introduced Desktop, a brand new data discovery interface that can be quickly downloaded on PC or Mac in minutes. MicroStrategy Desktop allows business users to connect to any data source, blend and prepare data to build dashboards for data discovery, and do ad-hoc analysis, all within minutes.
- » Today, MicroStrategy continues to improve and enhance product features, usability, and documentation via quarterly release cycles, and is focused on being more responsive than ever to customers' needs.

- » In 2014, MicroStrategy simplified product packaging and pricing to make licensing easier, faster, and more transparent. With the updated model, our 21 analytics and mobile products were condensed into 4 role-based offerings: Web, Mobile, Architect, and Server. The new packaging model simplifies the purchasing process while delivering more value to end-users and presenting opportunities for broader deployments.
- » The MicroStrategy Community (community.microstrategy.com) is a dynamic and active online community with over 550,000 unique visitors and is accessible to anyone at no cost. MicroStrategy Readmes and the MicroStrategy YouTube channel also provide additional video and written tutorials covering most of the available functionality.

Pentaho

Pentaho was acquired by Hitachi Data Systems in 2015. The product is an open-source platform with a suite of capabilities including end-to-end data integration and reporting/visualizations. The data integration component is leveraged more widely due to Pentaho’s focus on big data integration, such as working with Hadoop, in addition to ETL processes for traditional data sources. Traditional and big data sources can be blended and prepared for reporting/visualizations or embedded into external applications, also core offerings of Pentaho. The company provides a free open-source edition called Community Edition, along with a paid Enterprise Edition, which has some features not available in the free version and provides support. The product has native integration with big data tools like Hadoop and Hive, and is capable of processing very large data volumes.

Pentaho is Top Rated in the small business segment.

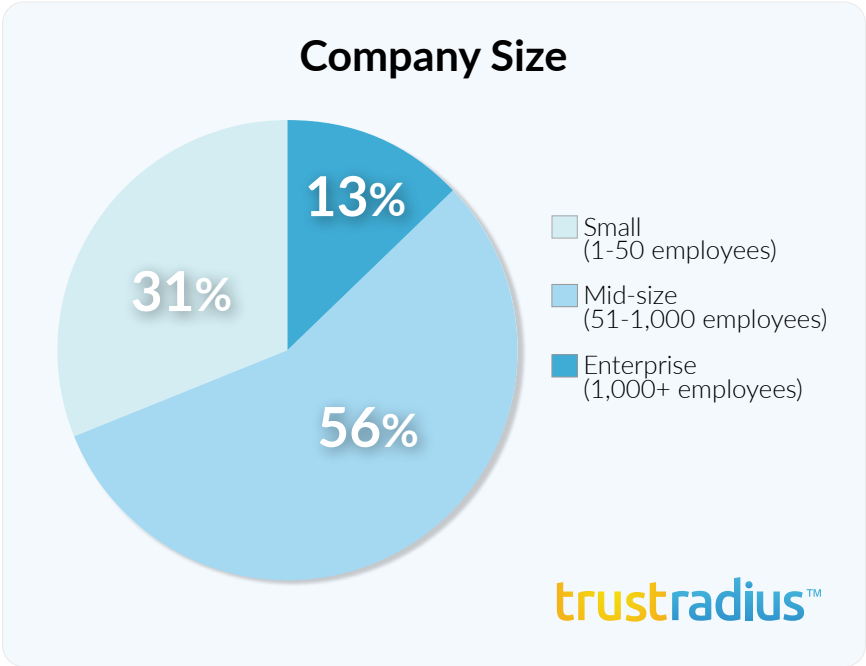


Score 7.5 out of 10



Company status	Private
Customers	N/A
Employees	350
Location	Orlando FL, and San Francisco CA
Founded	1996
Most compared to	Microsoft BI; QlikView; Tableau Server
Best fit for	Pentaho is a solid open-source platform, and the data integration capabilities are particularly strong. This would be a good choice for companies that need to blend and integrate high-volume data from a wide range of structured and unstructured sources.

Pentaho Customer Demographics*



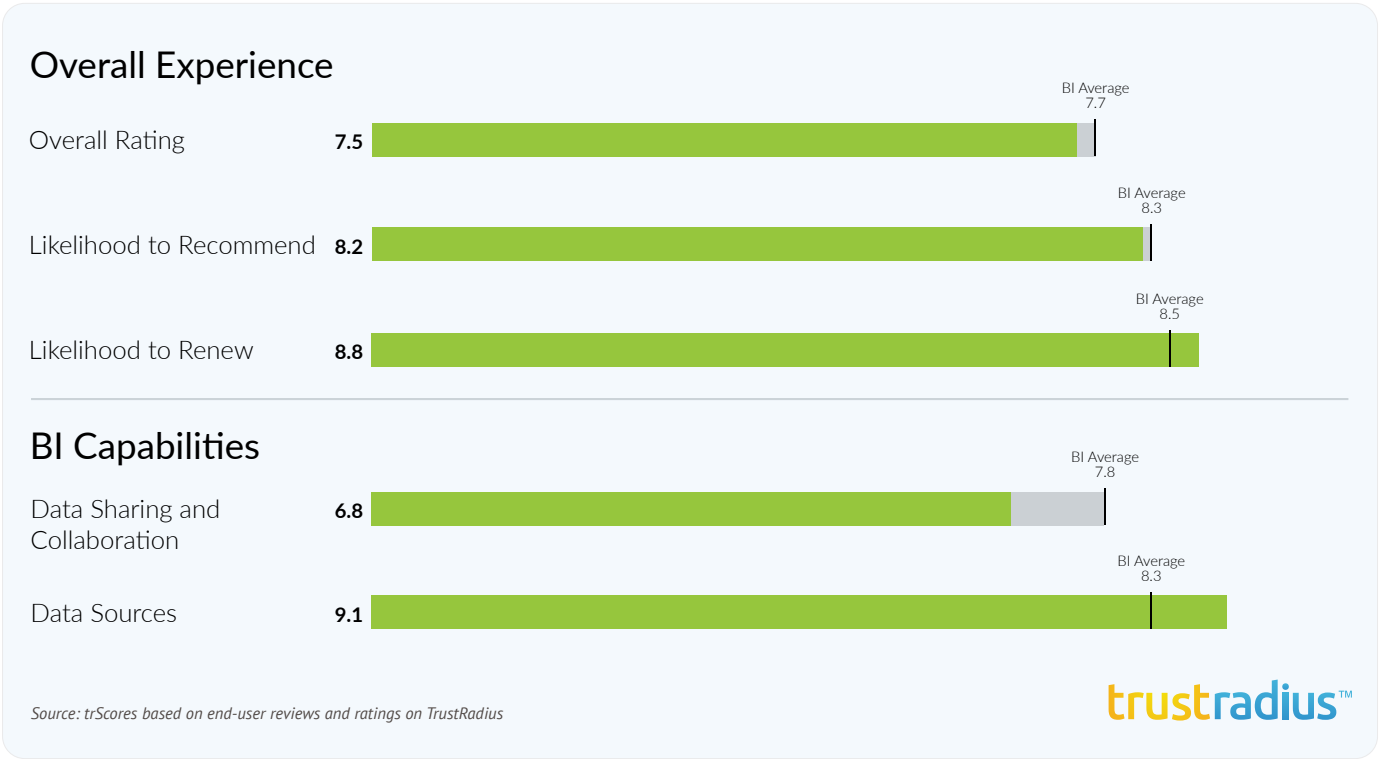
*Customer demographics data is drawn from user profiles and users reviews of this product on TrustRadius. Data may not be available for all reviewers.

Summary of Pentaho Reviews

PENTAHO PROS	PENTAHO CONS
<p>Data integration</p> <ul style="list-style-type: none">» A large number of users praise the ETL functionality for efficiently enabling data cleaning, normalizing, transformations and integration of data from a great many data sources.» The data integration capabilities are particularly effective for very large volumes of data from, for example, Hadoop or other big data technologies.	<p>Visualizations</p> <ul style="list-style-type: none">» The Analyzer visualization tool has a steep learning curve, and visualizations are relatively weak compared to other products.
<p>Open source suite</p> <ul style="list-style-type: none">» The community edition of the product provides a full suite of free open-source tools including not just ETL, but also a reporting engine, and dashboards/visualizations. There is also an Enterprise Edition with additional capabilities and support.	<p>Report designer</p> <ul style="list-style-type: none">» Several users say Report Designer could be improved. It has a buggy, outdated interface, and is clunky for users.
<p>Customer support</p> <ul style="list-style-type: none">» Customer support is generally responsive and helpful.	<p>Community Edition</p> <ul style="list-style-type: none">» The Community Edition takes some effort to learn and get up to speed, as documentation is limited. It also lacks some useful features that are only available in the Enterprise Edition.

Source: (16) [User reviews of Pentaho](#) on TrustRadius.

Aggregate User Ratings of Pentaho on TrustRadius



Hitachi Data Systems Response to Reviewer Feedback

Pentaho is a strong tool for working with structured and unstructured data, blending that data, and preparing it for end user analytics. We are one of the few vendors that has reports, visualizations, and ad hoc reporting with a native data integration component within the platform. Due to this, end users are able to prepare and analyze accurate, blended information sources easily. We are continuing to expand this capability, so that all users along the data pipeline are able to collaborate for data engineering, data preparation, and business analytics.

To date, we have implemented the most big data use cases out of any other vendor, and we are continuing to build out our data integration and user experience to meet the changing needs of the market.

QlikView

Qlik has two major products in its product portfolio: QlikView and Qlik Sense, and these products will continue to co-exist. QlikView is a more technical product that requires some development effort to create layout before the applications can be shared with business users. Qlik Sense began life as a self-service visualization tool designed for business users rather than developers, but is now the lead product and is being rapidly built-out as an enterprise platform.

Qlik Sense Enterprise is based on the same technology engine as QlikView. It is accessed through a modern HTML5 browser client from any device, whether using an on-premise server or a virtual machine in the cloud. Beyond visualization capabilities, it provides data governance, pixel-perfect reporting and collaboration, extensive APIs and tools for developers, and enterprise-level management, security and scalability.

Qlik’s position on the TrustMap is determined solely by reviews of its QlikView product. TrustRadius is working on collecting additional reviews of [Qlik Sense](#).

QlikView is Top Rated in the mid-sized company segment.

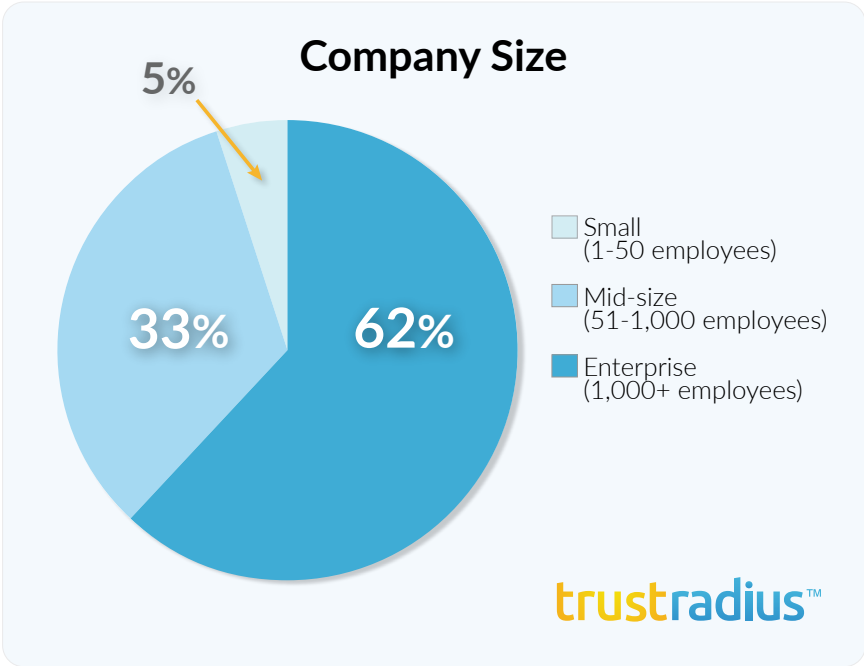


Score 7.4 out of 10



Company status	Public
Customers	35,000+
Employees	2,500+
Location	Radnor, PA
Founded	1993
Most compared to	Tableau Desktop; Microsoft BI; IBM Cognos
Best fit for	QlikView is a good choice for companies with developer or power analyst resources to build reports and dashboards. Qlik Sense is a self-service tool built on the same engine that is being rapidly expanded as an enterprise platform.

QlikView Customer Demographics*



*Customer demographics data is drawn from user profiles and users reviews of this product on TrustRadius. Data may not be available for all reviewers.

Summary of QlikView Reviews

QLIKVIEW PROS	QLIKVIEW CONS
In-memory computing <ul style="list-style-type: none">» Rather than retrieving data from disk, QlikView lads all the data into RAM, which allows for significantly faster data assembly and processing and allows analysts to interact with data in detail, instead of just aggregate data views.» In-memory processing does depend on adequate RAM to be effective however.	Pricing model <ul style="list-style-type: none">» Several reviewers refer to the overly complex pricing model, which is not easy to understand in conjunction with the relatively high price of the product.
Visualizations <ul style="list-style-type: none">» Most users are very happy with the drag and drop visualization tools. In-memory processing makes visualizations particularly fast.» Associative search makes it possible to see how data elements are related using a simple green, gray, white associative model.	Performance issues <ul style="list-style-type: none">» Some reviewers have experienced performance issues with slowness under large data loads.
Dashboard development <ul style="list-style-type: none">» While BI developers are required to build the underlying data model, once that is in place, dashboard development is very intuitive and fast, and dashboards can be accessed over the web.	IT dependence <ul style="list-style-type: none">» Some users complain of being too dependent on IT to control dashboard appearance.

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QLIKVIEW PROS	QLIKVIEW CONS
User interface » The user interface is very thoughtful and well designed, making the program relatively intuitive for most users. Once again though, for anything beyond simple changes, developer level skills are required to customize.	
Built-in ETL » A major competitive advantage is built-in ETL capabilities, which allow data blending and preparation before normalized data is visualized.	
Connectors » Good connectors to many data sources including business applications like SAP and Salesforce.	

Source: (39) [User reviews of QlikView](#) on TrustRadius

Aggregate User Ratings of QlikView on TrustRadius

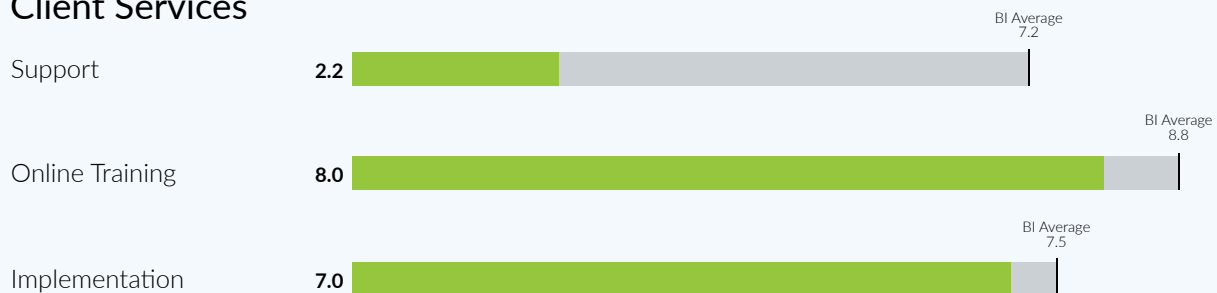
Overall Experience



Reliability



Client Services



BI Capabilities



Source: trScores based on end-user reviews and ratings on TrustRadius

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Qlik Response to Reviewer Feedback

N/A

SAP Business Objects

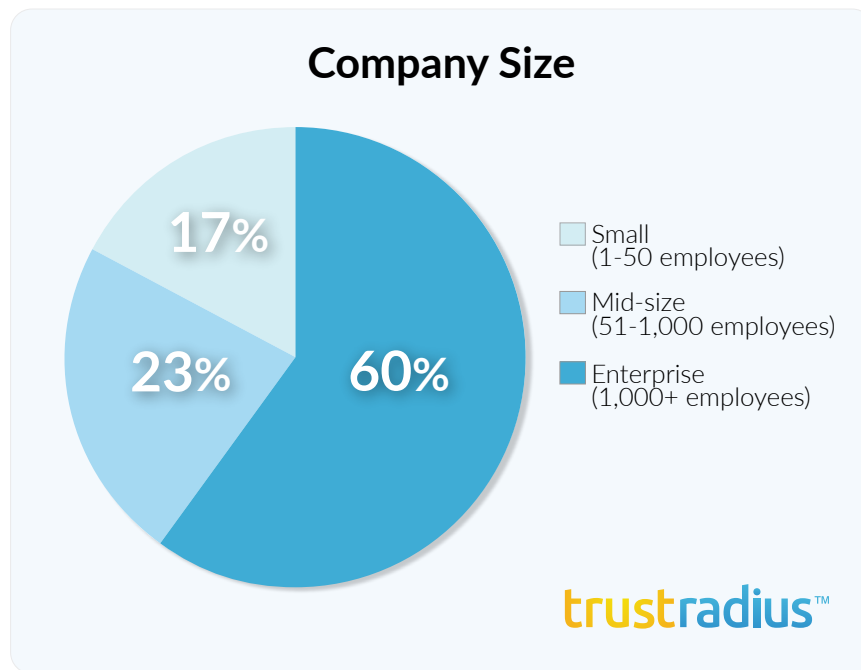
SAP acquired Business Objects in 2007 and the company has done much to modernize the platform since. [SAP BusinessObjects Lumira](#), the cloud visualization platform, was introduced in 2012 and integrated with the Business Objects platform, and also with the predictive analytics capabilities they acquired with KXEN in 2013. They have also seen success with the HANA in-memory, columnar appliance designed to meet the needs of organizations with very large data volumes. Additionally, SAP announced Cloud for Analytics in 2015, which is an entirely new cloud analytics platform with a complete range of capabilities, including data discovery and predictive analytics running on the HANA Cloud data store. This brand new cloud platform will exist in parallel with the aging Business Objects platform and the newer Lumira, and SAP has committed to continuing enhancements of these products.



TrustMap position does not reflect the newer technology platform but rather the Business Objects platform.

Company status	Public
Customers	300,000+ (entire company)
Employees	770,000+ (entire company)
Location	Walldorf, Germany
Founded	1972
Most compared to	Tableau Desktop; Microsoft BI; QlikView
Best fit for	The SAP Business Objects platform is an enterprise-level system best suited to larger companies, and companies already using SAP enterprise applications. The new cloud platform, SAP Cloud for Analytics, will serve the same audience, although absence of deployment difficulties might extend its appeal to smaller organizations.

SAP Business Objects Customer Demographics*



*Customer demographics data is drawn from user profiles and users reviews of this product on TrustRadius. Data may not be available for all reviewers.

Summary of SAP Business Objects Reviews

SAP BUSINESS OBJECTS PROS	SAP BUSINESS OBJECTS CONS
Modules enable end-to-end BI solution <ul style="list-style-type: none"> » Users said that SAP Business Objects includes a collection of different modules like, data warehouse, extraction, data blending, and reporting and analysis tools. » Users also like that it includes a suite of development tools. 	Expensive to implement & maintain <ul style="list-style-type: none"> » Many users said the product is expensive, both in terms of implementation and ongoing resources to maintain the system (IT headcount and server space).
Security <ul style="list-style-type: none"> » Security model is very granular and relatively easy to maintain. 	Dashboard designer <ul style="list-style-type: none"> » The dashboard designer has room for improvement. Some users said it was a weak point of SAP Business Objects; others said it was dated.
Connectivity <ul style="list-style-type: none"> » Users said SAP BO has good connectivity to a range of data sources, as well as to other analytics software. 	Self-service visualizations <ul style="list-style-type: none"> » According to users, it does not work well for immediate visualization of disparate, unorganized data. » Users said SAP BO is more IT- and developer-oriented than self-service tools that have stronger visualization capabilities.
Scheduling <ul style="list-style-type: none"> » Report scheduling works well and is helpful for processing large data sets. 	Can't easily run large data sets on the fly <ul style="list-style-type: none"> » Users said SAP BO is not good for long running queries on demand. The product can certainly handle large data sets, but in order to be efficient these need to be scheduled in advance.

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SAP BUSINESS OBJECTS PROS	SAP BUSINESS OBJECTS CONS
User-friendly queries & formulas <ul style="list-style-type: none"> » Some said the interface allows them to edit formulas easily, and that the query and objects layout is user friendly. » Note that many reviewers are IT or data analysts, so their notion of “user friendliness” may differ from some of the BI tools geared towards business end-users. 	Bugs with new releases/service packs <ul style="list-style-type: none"> » Service packs sometimes re-introduce issues that had been already fixed due to inadequate regression testing.

Source: (30) User reviews of SAP Business Objects on TrustRadius

Aggregate User Ratings of SAP Business Objects on TrustRadius

Overall Experience



Reliability



Client Services



BI Capabilities



Source: trScores based on end-user reviews and ratings on TrustRadius

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SAP Response to Reviewer Feedback

N/A

SAP BusinessObjects Lumira

Lumira, originally called SAP Visual Intelligence and recently rebranded as SAP BusinessObjects Lumira, is SAP’s data discovery and visualization product, which was first introduced in 2012. Lumira is integrated with SAP HANA and with the Business Objects Suite, but can also be used standalone. Nonetheless, most Lumira users are also users of other SAP applications.

SAP BusinessObjects Lumira is Top Rated in the mid-sized company and enterprise segments.

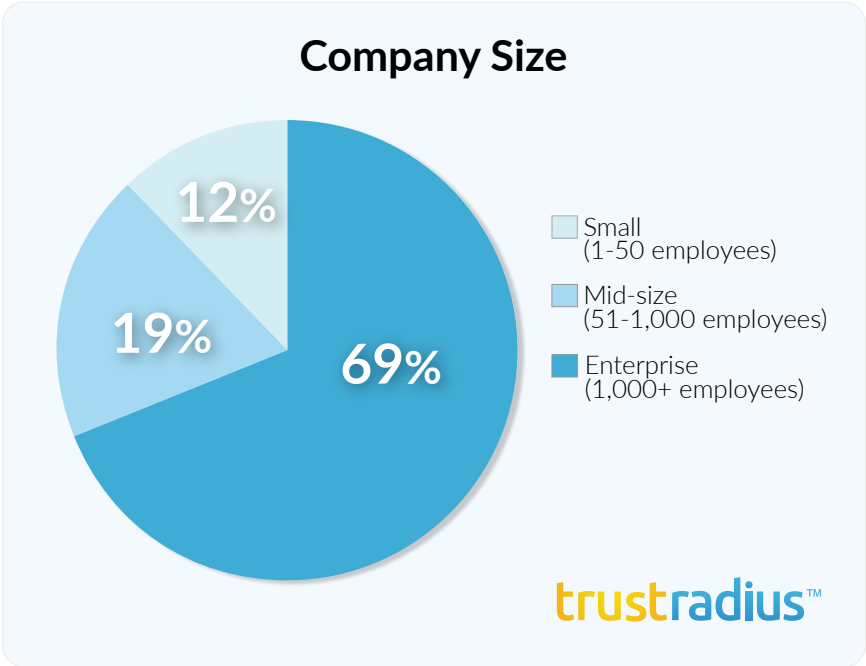


trScore 8.3 out of 10



Company status	Public
Customers	300,000+ (entire company)
Employees	770,000+ (entire company)
Location	Walldorf, Germany
Founded	1972
Most compared to	Jaspersoft; SAP Business Objects; IBM Cognos
Best fit for	SAP BusinessObjects Lumira is an effective visualization and data exploration tool for business users if they are already in the SAP ecosystem. It is easy to use, good value for money and provides excellent ROI.

SAP BusinessObjects Lumira Customer Demographics*



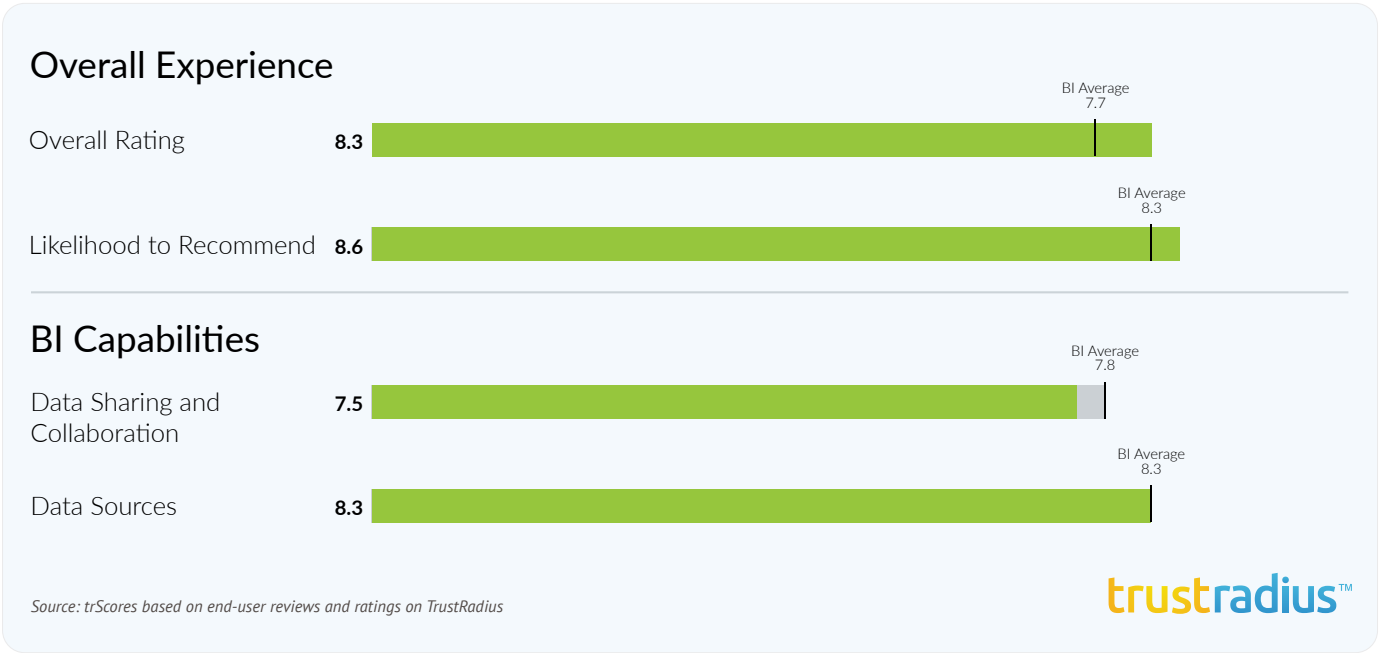
*Customer demographics data is drawn from user profiles and users reviews of this product on TrustRadius. Data may not be available for all reviewers.

Summary of SAP BusinessObjects Lumira Reviews

SAP BUSINESSOBJECTS LUMIRA PROS	SAP BUSINESSOBJECTS LUMIRA CONS
Very easy to create visualizations <ul style="list-style-type: none">» The product is very easy to use, and has a well-designed user interface allowing business users with minimal technical expertise to create dashboards and visualizations.	Graphing/charting options are limited <ul style="list-style-type: none">» Several reviewers mention that graphing options could be more extensive with more granular control over data presentation options.
Data integration <ul style="list-style-type: none">» Integration of data from SAP applications, including HANA and Business Objects, and a broad range of non-SAP sources.	Not cross-platform <ul style="list-style-type: none">» Some users mentioned the fact that it only runs on Windows, and that there is no Mac version as a limitation.
Mapping <ul style="list-style-type: none">» The product has strong geo-mapping capabilities that are easy to use.	Performance <ul style="list-style-type: none">» Performance when processing large data sets is sometimes slow, as performance is dependent on local machine memory.
Data sharing <ul style="list-style-type: none">» Very easy to share visualization across teams. Visualizations can also be shared via the Business Objects portal.	

Source: (24) [User reviews of SAP BusinessObjects Lumira](#) on TrustRadius.

Aggregate User Ratings of SAP BusinessObjects Lumira on TrustRadius



SAP Response to Reviewer Feedback

N/A

SAP Crystal Reports

Crystal Reports was founded in 1991 and was owned by Seagate Technology before Business Objects acquired it in 2003, and Business Objects was subsequently acquired by SAP in 2007. This is a legacy product, with an aging technology platform, that still has a large user base of loyal users. It is frequently used in conjunction with Business Objects as the report design front-end.

It is important to note that SAP Crystal Reports reviewers include both paying users as well as free trial users. Free users are using the exact same product; however, they generally have more positive sentiment around a product since they are not paying for it.

SAP Crystal Reports is Top Rated in the small business segment.

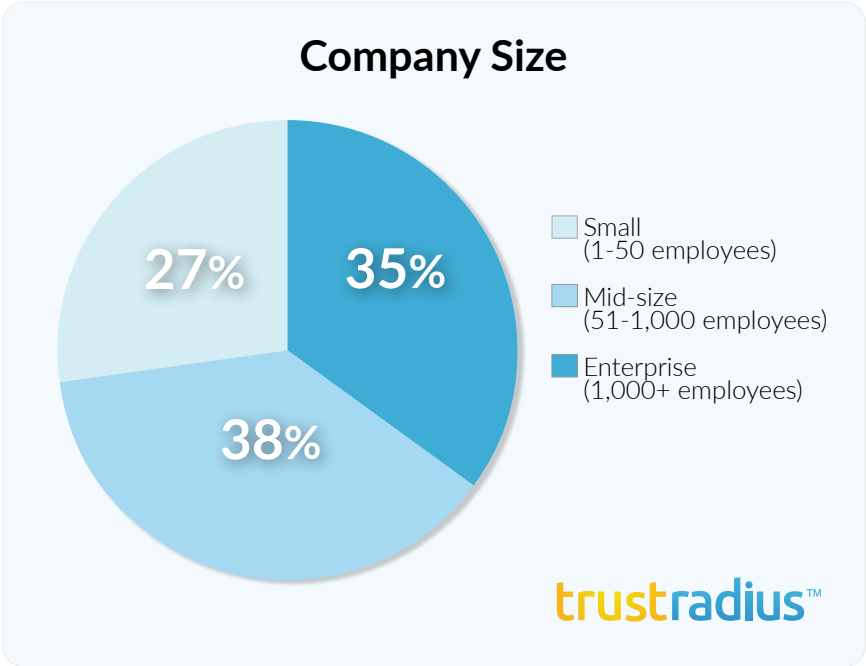


trScore 7.6 out of 10



Company status	Public
Customers	300,000+ (entire company)
Employees	770,000+ (entire company)
Location	Walldorf, Germany
Founded	1972
Most compared to	Jaspersoft; SAP Business Objects; IBM Cognos
Best fit for	Crystal Reports is a good design tool for customers already using other SAP products, especially Business Objects, for which it serves as the de-facto report design tool. It is used in conjunction with SAP Crystal Server by mainly smaller companies for frequently repeated reporting tasks like quarterly sales data.

SAP Crystal Reports Customer Demographics*



*Customer demographics data is drawn from user profiles and users reviews of this product on TrustRadius. Data may not be available for all reviewers.

Summary of SAP Crystal Reports Reviews

SAP CRYSTAL REPORTS PROS	SAP CRYSTAL REPORTS CONS
Connects to wide variety of data sources <ul style="list-style-type: none">» The product is capable of connecting to a variety of databases, including SQL, Oracle and many others, It can even merge data from multiple sources, making it very flexible.	Dated interface <ul style="list-style-type: none">» The product has a rather dated interface and has a steep learning curve for new users. Document formatting is tricky and the product is generally inefficient for causal use.
Report designer <ul style="list-style-type: none">» The report designer allows a wide variety of report types to be created by developers, including tabular reports, cross-tabs, charts, etc.	Aging product with limited ongoing development <ul style="list-style-type: none">» Crystal Reports is a mature product, which is no longer subject to major enhancements, but has benefitted from some minor enhancements in 2016, including an expanded Named User License (NUL) package for Crystal Server.
Report bursting and scheduling <ul style="list-style-type: none">» Reports can be scheduled for web delivery and can be delivered in multiple formats. Reports can also be burst, with different parts being delivered to different recipients.	Weak charting and graphing <ul style="list-style-type: none">» Charting and graphing options are limited and not easy to use.
Sub-reports <ul style="list-style-type: none">» Ability to created embedded “sub-reports” within other reports is very useful.	
Integration with other SAP products <ul style="list-style-type: none">» The product integrates well with Business Objects and a variety of other SAP data management products.	

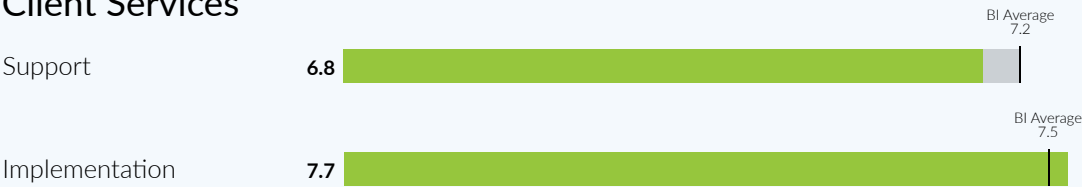
Source: (52) User reviews of SAP Crystal Reports on TrustRadius.

Aggregate User Ratings of SAP Crystal Reports on TrustRadius

Overall Experience



Client Services



BI Capabilities



Source: trScores based on end-user reviews and ratings on TrustRadius





SAP Response to Reviewer Feedback

N/A


Sisense

Sisense is a full-stack product with a columnar data store, an ETL layer and a set of front-end tools for constructing dashboards and visualizations. The proprietary data store called “elasticube” is more flexible than OLAP cubes, with much less reliance on data modeling. Sisense has also abandoned the familiar in-memory technology common to visualization tools for an “in-chip” solution which uses the data storage provided by the chip set, in addition to RAM and disk storage. This removes some of the speed limitations of traditional disk storage and has none of the size limitations of in-memory RAM solutions. One of the big advantages of this platform is that it can process very large volumes of data in the columnar database, and the in-chip memory innovation is fast and efficient.






(35)

Score

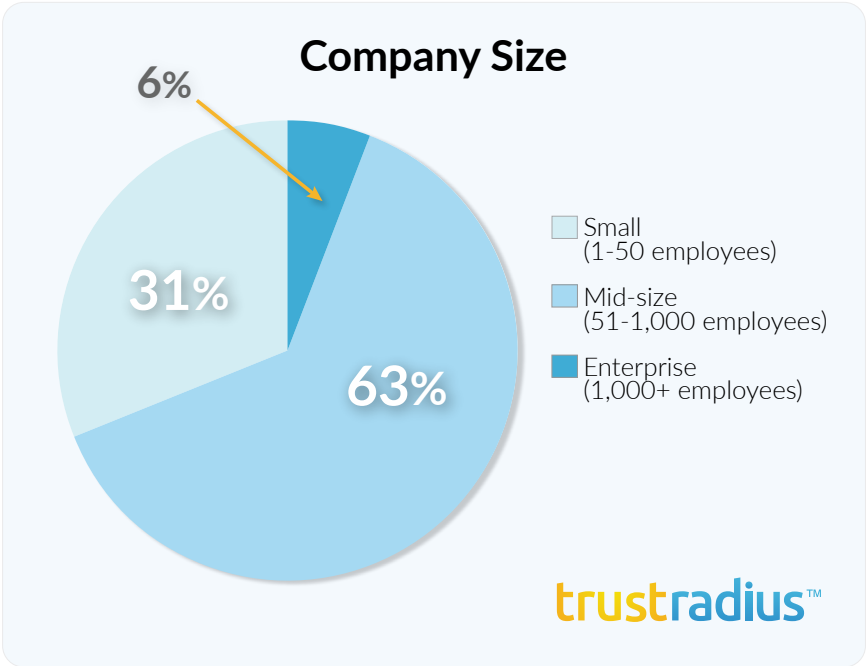
7.4 out of 10



Sisense is Top Rated in the mid-sized company segment.

Company status	Private
Customers	1,000+
Employees	200+
Location	New York, New York
Founded	2004
Most compared to	Tableau Server; QlikView; Microsoft BI
Best fit for	Sisense is designed for companies with a need to process disparate data sources or large data volumes without heavy reliance on an IT organization. It also provides self-service analytics tools that are designed for the business user rather than the IT organization.

Sisense Customer Demographics*



*Customer demographics data is drawn from user profiles and users reviews of this product on TrustRadius. Data may not be available for all reviewers.

Summary of Sisense Reviews

SISENSE PROS	SISENSE CONS
Good UI for dashboard creation » The dashboard builder UI allows users to create dashboards quickly and efficiently and alerts other users when new dashboards have been created.	Visualization options » Several users noted that they would like to see more charts and graphs and additional visualization options.
Elasticube strengths » Elasticubes (OLAP cubes) allow for highly customizable and efficient data queries, although some users report minor bugs on elasticube loading.	Elasticube limitations » Users describe limitations around outer joins and left/right joins. » Elasticubes are sometimes slow to build and occasionally experience build errors, with insufficient indication of the cause.
Data sources » Very strong ability to query many different databases and integration and mash-up of data from a wide variety of different sources.	Some features need additional documentation » Users said they would like Sisense to expand platform documentation, especially in areas of API designer and SQL design.
Cost effective » Sisense can be a very cost-effective solution as the in-chip technology maximizes resources and reduces hardware requirements.	
Easy & quick to deploy » Users said Sisense is easy to deploy and requires minimal Development time to get value. A few said there was a visible ROI even with the trial version, which was easy to start using.	

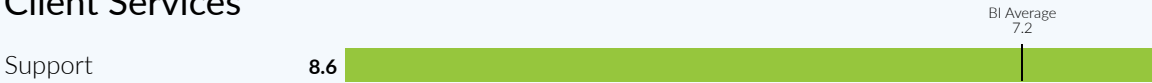
Source: (18) [User reviews of Sisense](#) on TrustRadius.

Aggregate User Ratings of Sisense on TrustRadius

Overall Experience



Client Services



BI Capabilities



Source: trScores based on end-user reviews and ratings on TrustRadius



Sisense Response to Reviewer Feedback

1. In addition to the out-of-the-box visualizations, Sisense provides a completely extensible JavaScript plug-in framework that enables users to add third party visualizations (such as D3) to Sisense. These plug-ins are treated just like native visualizations, once added to the system, and benefit from the full range of feature functionality available to the native visualizations.
2. Sisense's unique technology does not require upfront data modeling to detail join types. Join paths are created on the fly at time of query to optimize the query execution. This difference, frees Sisense users from typical, time consuming data prep processes that most BI tools require, including upfront modeling of inner/outer and left/right joins.

Tableau Desktop and Server

Tableau is, in many ways, the blue print for visual analytics, with an exceptionally easy to use platform for exploring and visualizing large volumes of data from multiple different sources. Tableau's position on the TrustMap reflects end-user reviews and ratings of Desktop and Server. Tableau Desktop is used to visualize and analyze data, create workbooks, visualizations, dashboards and stories, while Tableau Server allows users to publish workbooks so that they are available in a central location for viewing by others.

The product was designed with business users in mind, and has been remarkably successful at serving that audience. This success has led to more and more requests for more enterprise-level features like data governance, and data preparation. Tableau provides robust governance in the Data Server part of Tableau Server and introduced data preparation capabilities in Tableau desktop version 9. In March 2016, the company acquired the German startup HyPer, which is a database system designed to process streaming operational data. This product will be integrated with the Tableau product side and will fill some of these gaps and also provides support for unstructured big data analysis.

Tableau Desktop is Top Rated in all three company size segments. Tableau Server is Top Rated in the mid-sized company and enterprise segments. TrustRadius is working to gather additional reviews of the [Online](#) product.



trScore 8.1 out of 10

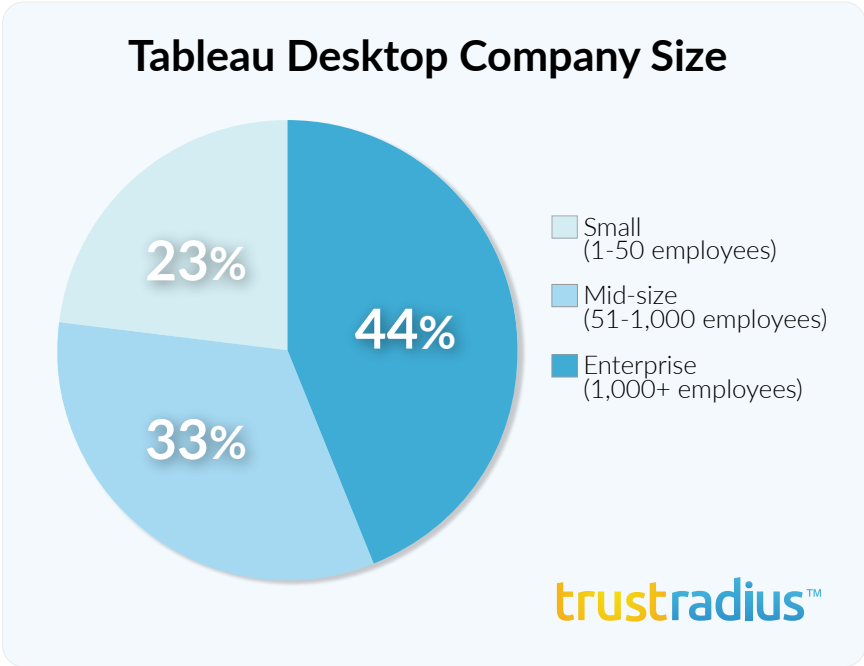


trScore 8.0 out of 10

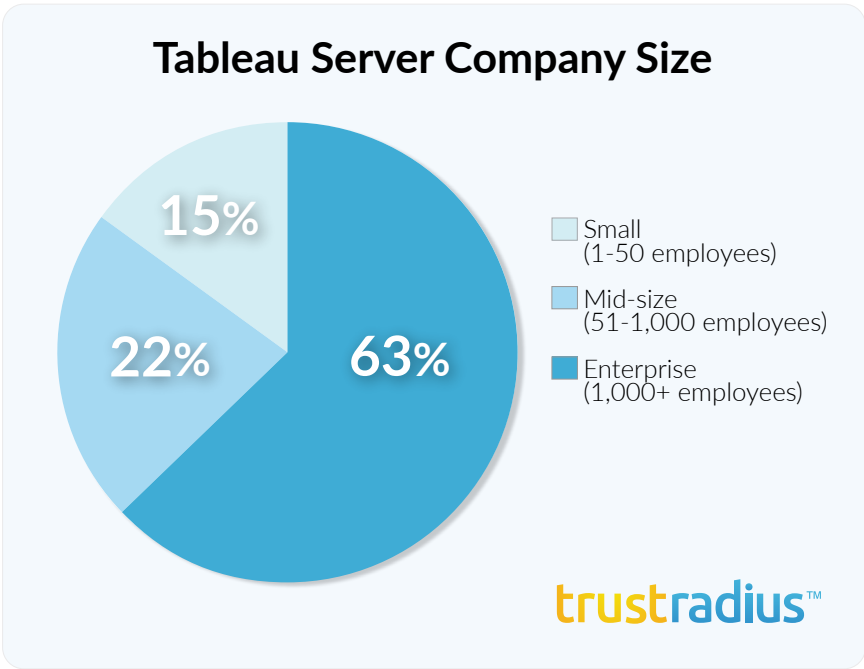


Company status	Public
Customers	26,000+
Employees	2,000+
Location	Seattle, WA
Founded	2003
Most compared to	QlikView; TIBCO Spotfire; SAP Business Objects
Best fit for	Tableau is an excellent tool for business analysts allowing them to do discovery and visualization on data from a large number of data sources with ease. However, it requires additional products to help prepare the data for analysis. It is also not designed for enterprise reporting. TrustRadius does not have enough reviews for the Online version, but will endeavor to provide better coverage in the future.

Tableau Customer Demographics*



*Customer demographics data is drawn from user profiles and users reviews of this product on TrustRadius. Data may not be available for all reviewers.



*Customer demographics data is drawn from user profiles and users reviews of this product on TrustRadius. Data may not be available for all reviewers.

Summary of Tableau Desktop and Server Reviews

TABLEAU PROS	TABLEAU CONS
Visualizations <ul style="list-style-type: none"> » Very comprehensive library of visualizations. The software is able to autosuggest an appropriate visualization based on the type of data. It's possible to visualize millions of rows of data very rapidly. Visualizations can also be refreshed as underlying data changes. 	Not an enterprise reporting tool <ul style="list-style-type: none"> » Tableau is not designed as an enterprise-reporting tool providing tabular reporting. The product lacks governance, version control and has only limited data preparation/ETL capabilities and users often use the product in conjunction with a data preparation product like Alteryx.
Data source connectivity <ul style="list-style-type: none"> » It's very easy to directly connect and retrieve data from a wide variety of databases, including Hadoop and MPP databases like Vertica, without any interim transformations required. 	Limited predictive and statistical capabilities <ul style="list-style-type: none"> » Although the product does have integration with the R analytical language, predictive and statistical analysis requires programming and scripting skills that are beyond the abilities of most business users.
Intuitive user interface <ul style="list-style-type: none"> » Highly intuitive user interface uses drag-and-drop metaphor and allows users to start using the product very quickly. New users can start to build dashboards with minimal training. 	
Dashboards <ul style="list-style-type: none"> » Users can create very powerful dashboards with advanced segmentation and filtering capabilities. However, some users report difficulties with object placement on dashboards. 	
Geo-mapping capabilities <ul style="list-style-type: none"> » Many users like the mapping widget, which provides powerful geographical mapping capabilities. Geospatial data can be represented as point maps and filled maps. 	
Collaboration <ul style="list-style-type: none"> » Tableau Server is a very effective for sharing and collaboration and offers robust permissions with three different access levels. 	

Source: (65) [User reviews of Tableau Desktop](#) and (29) [User reviews of Tableau Server](#) on TrustRadius.

Aggregate User Ratings of Tableau Desktop on TrustRadius

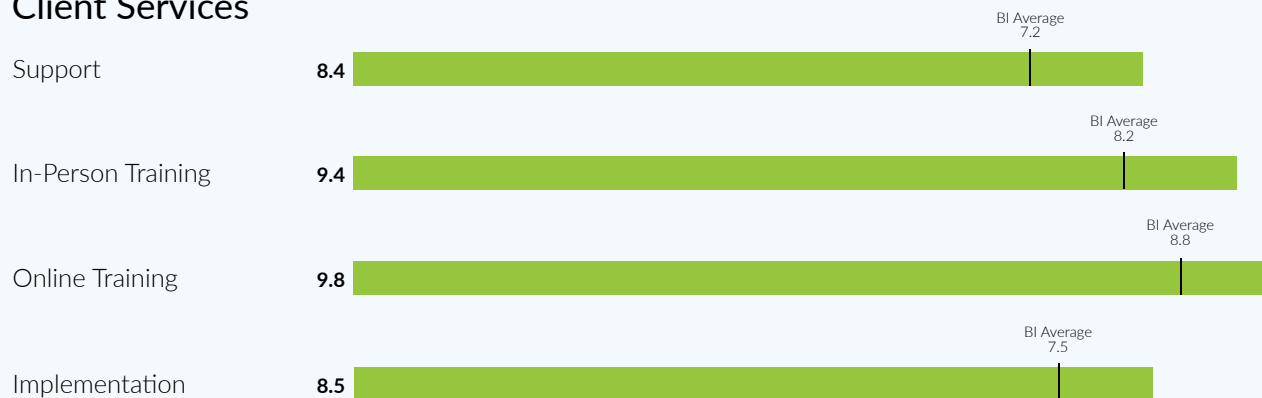
Overall Experience



Reliability



Client Services



BI Capabilities



Source: trScores based on end-user reviews and ratings on TrustRadius

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Aggregate User Ratings of Tableau Server on TrustRadius

Overall Experience



Reliability



Client Services



BI Capabilities



Source: trScores based on end-user reviews and ratings on TrustRadius

trustradius™

Tableau Response to Reviewer Feedback

N/A

TIBCO Jaspersoft

TIBCO Jaspersoft is an open-source reporting and analytics tool that was acquired by TIBCO Software in 2014. It has a well-designed modern user interface and is thus relatively easy to use by end users. It is often used in an OEM or embedded scenario where it is integrated as the reporting engine for business applications.

TIBCO Jaspersoft is Top Rated in the small business segment.

TIBCO Jaspersoft

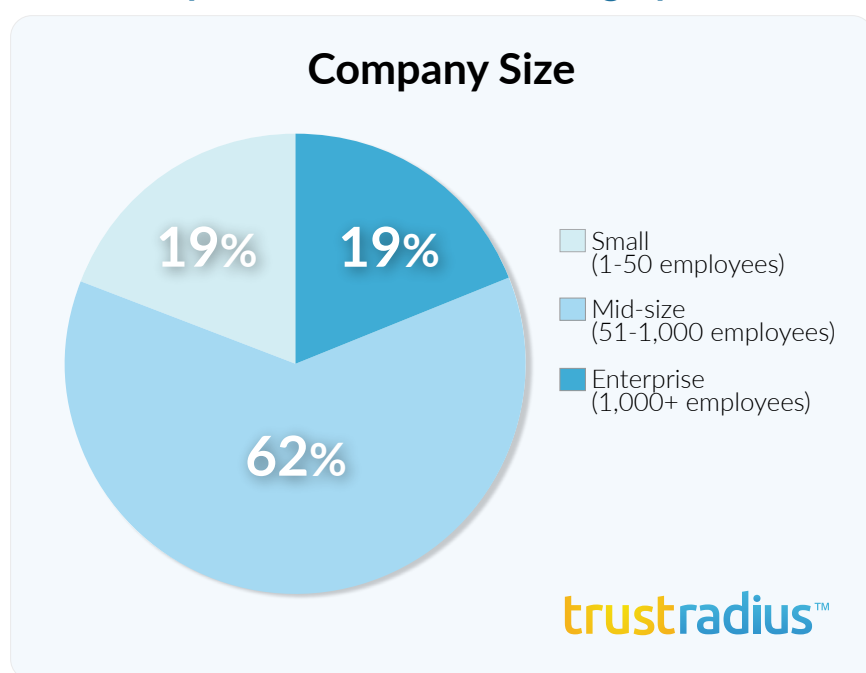
★★★★☆ (38)

Score 7.2 out of 10



Company status	Private
Customers	1,500+
Employees	3,500
Location	Palo Alto, California
Founded	2004
Most compared to	SAP Crystal Reports; TIBCO Spotfire Desktop; Microsoft BI
Best fit for	Jaspersoft is an open-source product suite, with particular strength in reporting and analysis, and an intuitive user interface. This is a good choice for companies looking for a reliable reporting engine that can be embedded in other applications.

TIBCO Jaspersoft Customer Demographics*



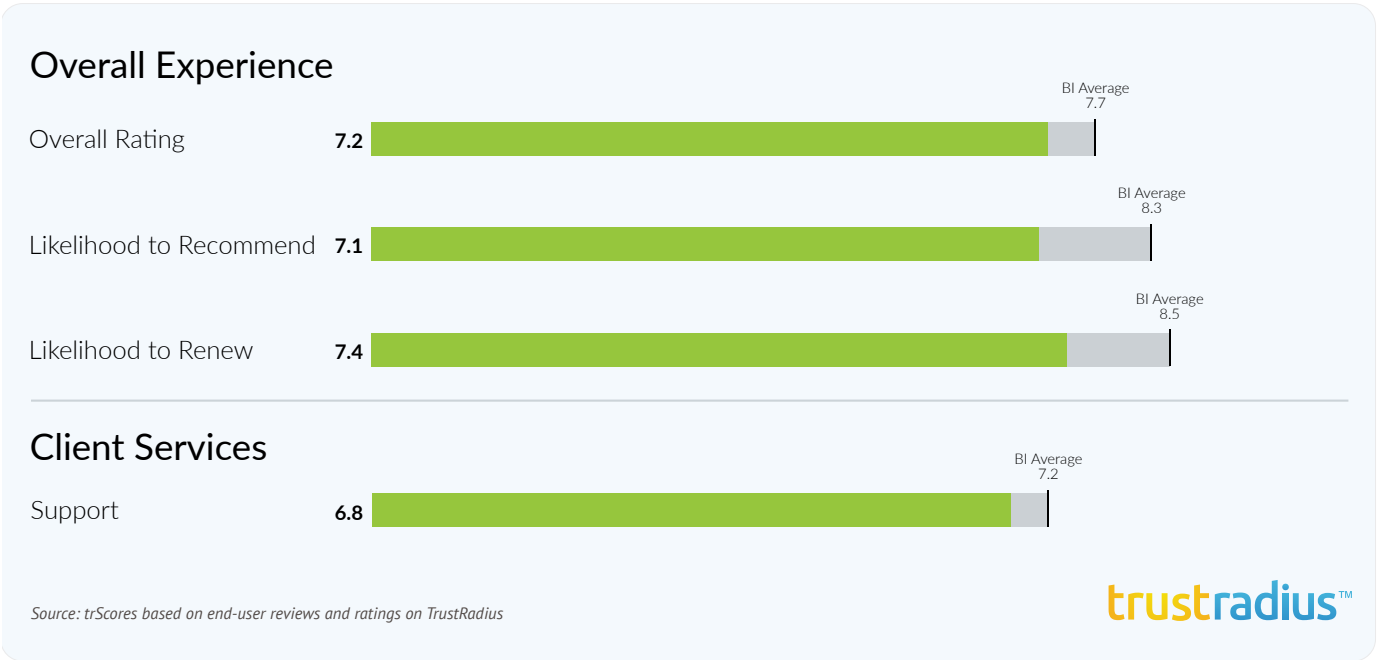
*Customer demographics data is drawn from user profiles and users reviews of this product on TrustRadius. Data may not be available for all reviewers.

Summary of TIBCO Jaspersoft Reviews

TIBCO JASPERSOFT PROS	TIBCO JASPERSOFT CONS
Report design and delivery <ul style="list-style-type: none">» iReport is a very effective report creation and delivery tool. It can create pixel-perfect reports based on large data volumes, and report scheduling is simple and flexible.» iReport also has an intuitive user interface which facilitates report creation by business users.» The product also has very strong ad-hoc reporting capabilities.	Update management <ul style="list-style-type: none">» Some users complain that the product can be buggy, and that QA processes for new updates need to be improved.» Updates are also difficult to manage in terms of upgrading servers and other maintenance work.
Embedded use case <ul style="list-style-type: none">» The product is well suited to an OEM model where it is embedded in another application.	Java coding knowledge <ul style="list-style-type: none">» Some knowledge of Java is helpful in circumventing limitations of the GUI, particularly for report customization, etc.
Customer support <ul style="list-style-type: none">» Both company-provided technical support and community support are first rate. The support team answers questions accurately and quickly.	
Documentation <ul style="list-style-type: none">» There is a bit of a learning curve, but the documentation and community are very helpful in getting going.	

Source: (16) [User reviews of TIBCO Jaspersoft](#) on TrustRadius.

Aggregate User Ratings of TIBCO Jaspersoft on TrustRadius



TIBCO Response to Reviewer Feedback

N/A

TIBCO Spotfire

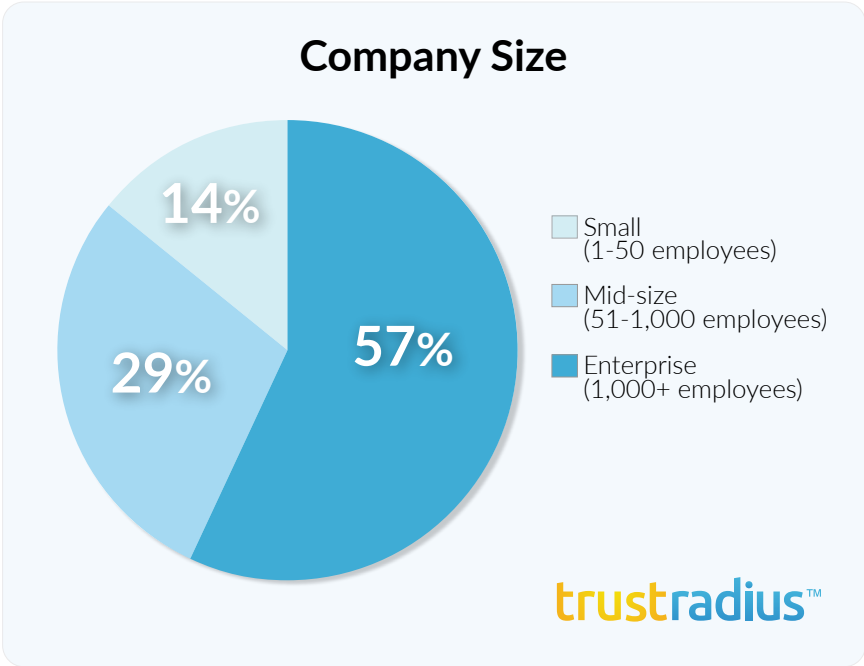
TIBCO acquired Spotfire in 2007. The initial focus of Spotfire was in the pharmaceutical drug research domain, and it retains a strong presence in that market. TIBCO Spotfire is a very strong data discovery and visualization tool and is capable of processing very large data volumes and includes a built-in predictive analytics runtime engine along with location analytics, so it can be used as a general purpose analytics tool but also by customers in data-intensive industries like retail, energy, life sciences and financial organizations. Acquisition of Maporarama and Streambase in 2013 gave the product powerful mapping capabilities and streaming data analytics respectively. In 2015 TIBCO acquired the open-source Jaspersoft platform which rounds out the BI offering by providing a reporting engine in addition to advanced visualization and analytics.



TIBCO Spotfire is Top Rated in the mid-sized company and enterprise segments.

Company status	Private
Customers	1,000+
Employees	3,500
Location	Palo Alto, CA
Founded	1996
Most compared to	Tableau Desktop; QlikView; Microsoft BI
Best fit for	TIBCO Spotfire is a good choice for companies who need interactive visualization capabilities with built-in data wrangling, predictive and location analytics. Its cloud and on-premises platform is well suited for quickly building analytic applications that can be deployed across a small team or company.

TIBCO Spotfire Customer Demographics*



*Customer demographics data is drawn from user profiles and users reviews of this product on TrustRadius. Data may not be available for all reviewers.

Summary of TIBCO Spotfire Reviews

TIBCO SPOTFIRE PROS	TIBCO SPOTFIRE CONS
Visualizations & Dashboards <ul style="list-style-type: none">» Very intuitive design tool for visualizations and dashboards with many standard visualizations to choose from, including bar charts, scatter plots, tree maps, (although still more limited than Tableau).	Learning curve <ul style="list-style-type: none">» Spotfire has more capabilities than other visualization tools and thus for advanced features can be considered more complex to use, although it has addressed many of these hard to use concerns in recent releases.
Predictive analytics built-in <ul style="list-style-type: none">» Spotfire comes with its own R-runtime engine that is accessible from its intuitive drag and drop UI. This gives less technical users powerful statistical functions in one-click while also giving data scientists a faster enterprise grade R engine for complex calculations.	Report creation <ul style="list-style-type: none">» The product was not really designed to generate static formatted or banded reports; it is really a visualization tool – Excel on steroids. However, the acquisition of Jaspersoft has gone some way to mitigating this.
Large data sets <ul style="list-style-type: none">» The system handles large data sets very well (thousands to millions of rows of data) due to its innovative in-memory engine and dual mode push down query processing support.	Software stability and speed <ul style="list-style-type: none">» Client crashes sporadically and there are no auto-save or version control capabilities. It also has a tendency to slow down with very large data sets.
Deep analytic capabilities <ul style="list-style-type: none">» The in-memory engine delivers powerful data transformation and calculation expressions to build complex analysis of multi-source or blended data.	

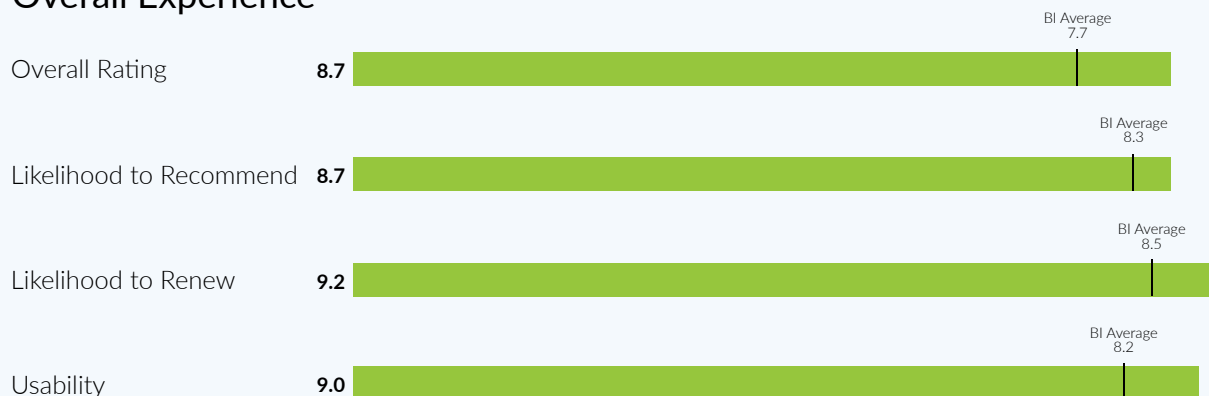
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TIBCO SPOTFIRE PROS	TIBCO SPOTFIRE CONS
Streaming analysis » Data streams can be analyzed in real-time.	
Data transformations » Data from numerous different sources can be integrated and numerous data transformations can be achieved either through the GUI or custom data functions.	
Geo-mapping » Very strong built-in geo-mapping and geo-localization capabilities due to acquisition of Maporama in 2013.	

Source: (56) [User reviews of TIBCO Spotfire](#) on TrustRadius.

Aggregate User Ratings of TIBCO Spotfire on TrustRadius

Overall Experience



Reliability



Client Services



BI Capabilities



Source: trScores based on end-user reviews and ratings on TrustRadius

trustradius™

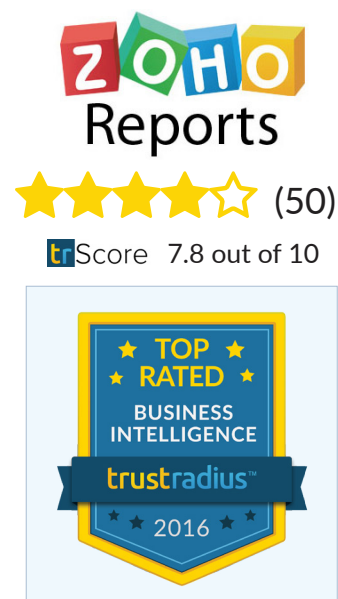
TIBCO Response to Reviewer Feedback

N/A

Zoho Reports

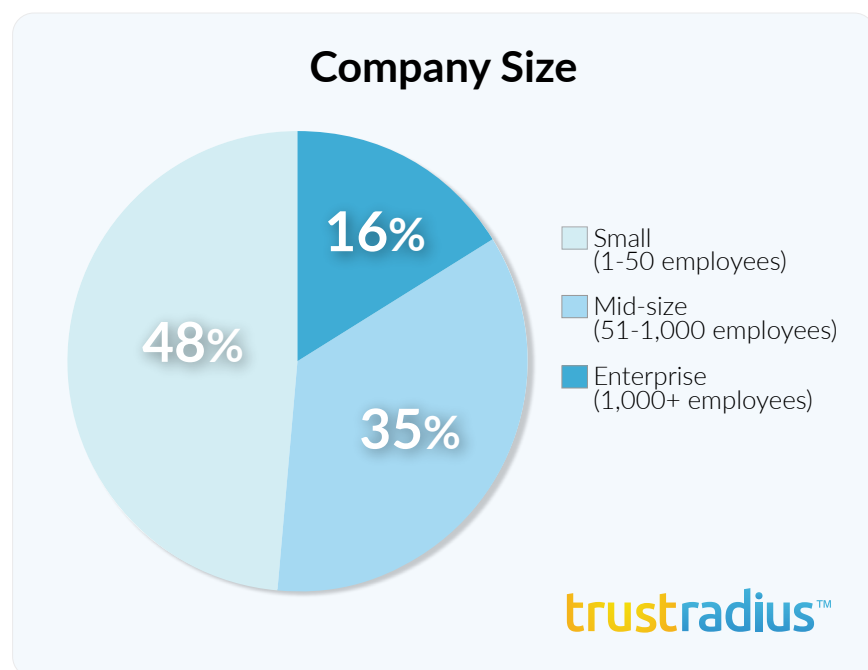
Zoho Reports is one of 33 different products marketed by Zoho. The reporting product was introduced in 2009, and builds reports and visualizations based on an Excel-like, tabular data construct. Users familiar with Excel will be able to drag and drop columns and create pivots without any need for scripting or programming. Zoho Reports is more suitable for smaller organizations as it lacks some of the features required for large enterprise deployments.

Zoho Reports is Top Rated in the small business segment.



Company status	Private
Customers	N/A
Employees	3,500+
Location	Pleasanton, California
Founded	1996
Most compared to	N/A
Best fit for	Zoho Reports is a suitable reporting tool for small and mid-sized companies looking for a relatively inexpensive SaaS BI solution with a simple UI and good connectivity to a wide range of databases and business applications.

Zoho Reports Customer Demographics*



*Customer demographics data is drawn from user profiles and users reviews of this product on TrustRadius. Data may not be available for all reviewers.

Summary of Zoho Reports Reviews

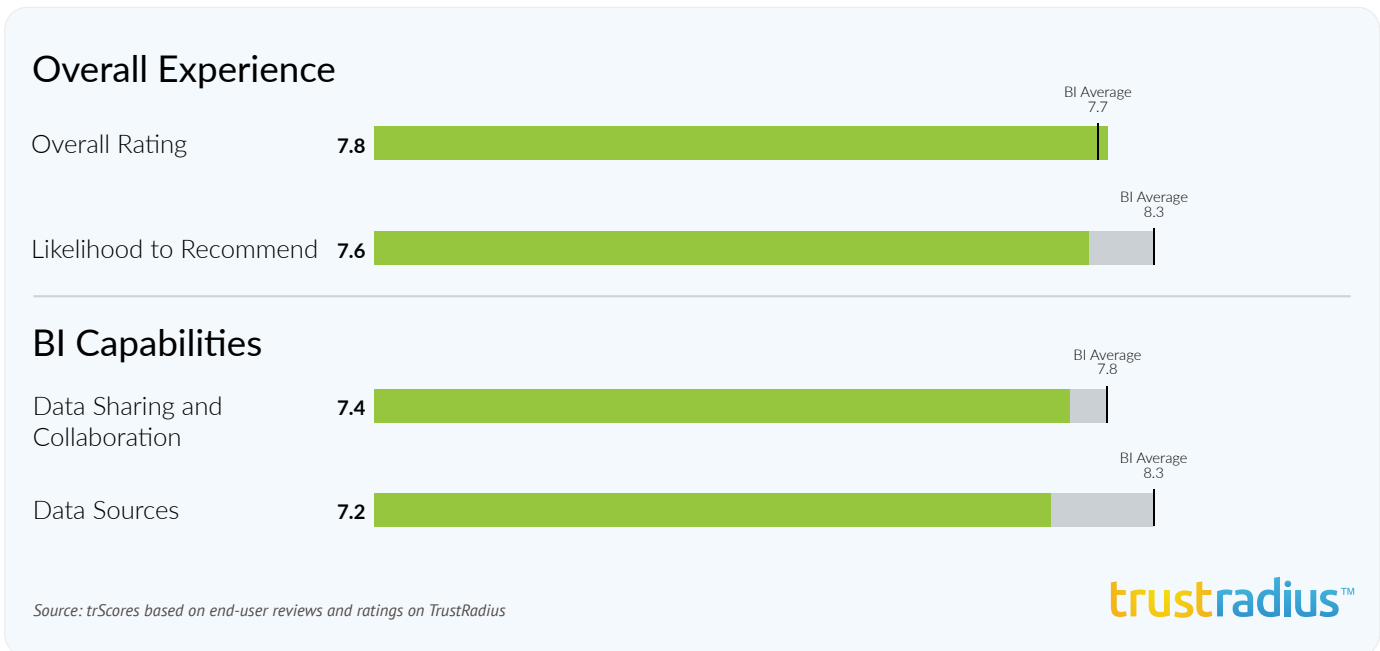
ZOHO REPORTS PROS	ZOHO REPORTS CONS
Ease of use <ul style="list-style-type: none"> » The product is easy to use and relatively easy to learn, even for users with less technical knowledge (in Sales, Marketing, and Customer Service departments, for example), but some users say that more complex tasks can be challenging. 	Report customization <ul style="list-style-type: none"> » Users complain of limitations regarding customizing appearance of reports, charts, and tables. Layout and formatting options are quite limited.
Reporting on multiple data sources <ul style="list-style-type: none"> » Many users said Zoho Reports works well for aggregating and reporting on data from a variety of sources, including databases and other applications. 	Customer support <ul style="list-style-type: none"> » Several users say that customer support could be improved.
Scheduled & on-demand sync <ul style="list-style-type: none"> » The API feed works well for refreshing data, either on demand or automatically at regular, scheduled intervals, although some users said the on-demand data sync takes longer than they would like. 	Integration with other Zoho applications <ul style="list-style-type: none"> » Integration with other Zoho applications is not always robust.
Out of the box report templates <ul style="list-style-type: none"> » Users like the pre-set report templates and drag-and-drop reports designer, which make it easy to create simple reports and visuals. 	

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ZOHO REPORTS PROS	ZOHO REPORTS CONS
Collaboration » Zoho Reports has several delivery options, which users say are convenient and support collaboration. Reports can be sent automatically via scheduled emails or shared via a web link; they can also be embedded onto web pages (such as client portals), as a snippet or widget.	

Source: (31) [User reviews of Zoho Reports](#) on TrustRadius.

Aggregate User Ratings of Zoho Reports on TrustRadius



Zoho Response to Reviewer Feedback

Today, no vendor offers the breadth and depth of business apps as Zoho does. We see Zoho as the ‘operating system for business, nay work’. With lots of business data now lying on the cloud, we see business intelligence and analytics as an important part that businesses of today should focus on, to get an edge over their competition.

Data from anywhere, whether it be flat files, web feeds, databases, cloud storages, and applications can be analyzed using Zoho Reports. We provide ready made connectors for popular business apps. More connectors are lined up for launch in the second half of 2016 (Google AdWords, QuickBooks, Xero, Zendesk, to name a few).

Since the launch in December 2009, Zoho Reports has become a mature product, with a long list of features added over the years (refer to the updates in the What’s New section). Our 5,000 paying customers worldwide stand testimony to that. That said, we will continue to add new features.

Flexible m x n dashboard layout, a new d3.js charting library, geo map reports, organization roles support are some of the upcoming features.

Our support team gives their best. Our average first response time is less than 24 hours and the average resolution time is around 48 hours. However, there may have been a few cases where the product fit was not there, or our support staff misunderstood a customer's exact needs. We continue to educate our support team, and provide them with the right tools and processes, to best address our customers' needs.

If you go by the number of reviews for Zoho Reports in TrustRadius, 5 out of the 31 reviews are from enterprises. That is reflective of our actual customer base as well, as around 20% of our customers are enterprises. Some customers of Zoho Reports include KPMG, Suzuki, Netflix, L'Oréal, Fortinet, Capgemini etc.

Clarence Rozario, Product Manager - Zoho Reports.

How to Buy a BI Solution

There are a number of steps to completing a successful BI purchase and implementation:

Don't get hung-up on the technology too early. It's about understanding the business problem and having the right people and processes.

Buying a BI solution is a complex undertaking, not just because of the large number of options available, but also because there are many different kinds of products, designed to do very different things. But the technology is not even the most important thing. All of the experts we interviewed for this guide were unanimous: Don't start with the technology!

“ Successful BI implementations are not just about tools, but are about people and processes. Focusing too soon on tool selection is not going to provide the best result. A BI project is not a one-shot thing, but is a journey that takes time and patience.



Wayne Eckerson
BI consultant and Expert

“ It's rarely about the technology. It's more around people and processes and scoping and managing projects properly. It's very important to start with the business and work backwards.



John Onder
Principal CBIG Consulting

“ The important thing to remember is that it's usually not about tools, and is more likely to be about organizational maturity and the ability to get decisions made and get things done. Many organizations I encounter are somewhat internally dysfunctional and this ability to get things done is weak or even non-existent.



Barry Devlin
BI Consultant, Author, Speaker



It's about more than just the technology. You can implement a solution but if people can't take action or use the product to make progress in their job, then they don't use it and the project fails due to lack of adoption.

Lyndsay Wise

BI Industry Analyst, President Wise Analytics



If people and processes are more important than the technology, what kind of people and processes should be put in place? The following sections discuss the importance of nominating an executive-level project sponsor and functional business leaders and the role of IT. However, there are some key success factors that are common to all successful BI projects. For example:

- » Create a business plan outlining the business problems to be solved and the expected benefits
- » Derived from the business plan, build a simple step action plan and outline each step clearly
- » Build a project team with all the appropriate stakeholders from business and IT
- » Establish clear success criteria

Find an executive sponsor

Perhaps the most important first step is to secure executive sponsorship with enough clout in the organization to telegraph the seriousness with which the organization is approaching the project. This is the most important overall factor.



Very often, organizations don't invest in the right people with the right knowledge and experience to know how to fit everything together. You need a very strong program manager, but also people who understand how to work cross functionally. Having the right sponsorship from the business side is essential.



Wayne Eckerson

BI consultant and Expert



To succeed, BI projects need a strong leader who is knowledgeable about both technology and business and can straddle both worlds, translating between the two. Since the ultimate goal is to achieve significant business value, it's usually better to have a technically-oriented business executive lead the team.

John Onder

Principal CBIG Consulting



Business should lead, IT should play a consultative role

Procuring a BI solution is a business decision. Only the business really understands the problems to be solved and the value that new technology can bring to the organization. Buying BI technology should never be an IT-only decision and this is something that needs to be made very clear from the start.

“ I draw a distinction between who should drive and who is usually driving when I get there! There is no question that a major project should always be driven by a high level executive on the business side; Either a CEO, or some direct report, who can take a cross-enterprise view. The reality is that IT is often reluctantly in the driving seat, and trying to get out of it as fast as they can. I try to transition leadership from IT and get the business people to step up to their responsibilities. IT is a co-owner in a process like this, but should not drive.



Barry Devlin
BI Consultant, Author, Speaker

“ BI projects should be driven by business. If they are driven by IT, there will be significant struggles. Speed of delivery is critically important. Often things will go on for far too long. A good idea is a hybrid agile approach where you mock things up and show the businesses how data can solve their problems... It's really very important to do this kind of rapid prototyping. The applications side of things is owned by business. The IT group is the curator and keeper of the data.

John Onder
Principal CBIG Consulting



“ Business users might want something not realizing that it will take six to nine months to implement rather than if they had chosen something else. IT usually prefers to choose something that fits into the already existing technology stack and tends to be less interested in business requirements.



Lyndsay Wise
BI Industry Analyst, President Wise Analytics

Focus on ease-of-use

BI tools can be notoriously difficult to use and it's important to understand the range of user types that will be using the software. The largest number of users are likely to be relatively non-technical executives, operations staff or salespeople who need the ability to monitor metrics, analyze anomalies and drill down to see details. A far smaller number will be technical users like data analysts or even highly-trained data scientists and modelers who really want to be able to explore

large data sets. It's important to understand the abilities of your users and to not overestimate the abilities of the largest part of the user population.

“ [Organizations struggle and fail] because the technology is often hard to use, and they have not done proper due diligence around the products they have invested in. But also organizations struggle because they are so tied to the technology investments they have already made. They don't want to rip and replace what they already have. They are trying to upgrade what they are already using and get the performance that they need. Sometimes they need something newer which is more flexible.

Lyndsay Wise
BI Industry Analyst, President Wise Analytics



Start small and get a quick win

It's critically important not to try to boil the ocean, but tackle a small bounded product and show some quick results. For example if executives from different departments cannot agree on sales numbers because they have different definitions of "product" and are working from different spreadsheets, agree to track a couple of metrics to help solve that problem. Early success of this kind is the best way to build confidence in the program and ensure continued buy-in.

“ It's critical to get a quick win. Find a project of significant value to the business and deliver it quickly. Once the business gains confidence in the technical team, it will eagerly invest in additional projects. With momentum, the technical team can then lay the foundation for an enterprise-wide program.



Wayne Eckerson
BI consultant and Expert

“ Speed of delivery is critically important. Often things will go on for far too long. A good idea is a hybrid agile approach where you mock things up and show the businesses how data can solve their problems. Then they understand the concept of guided analytics. It's really very important to do this kind of rapid prototyping.

John Onder
Principal CBIG Consulting

