# QlikView

# BUSINESS DISCOVERY:
## POWERFUL, USER-DRIVEN BI

A QlikView White Paper

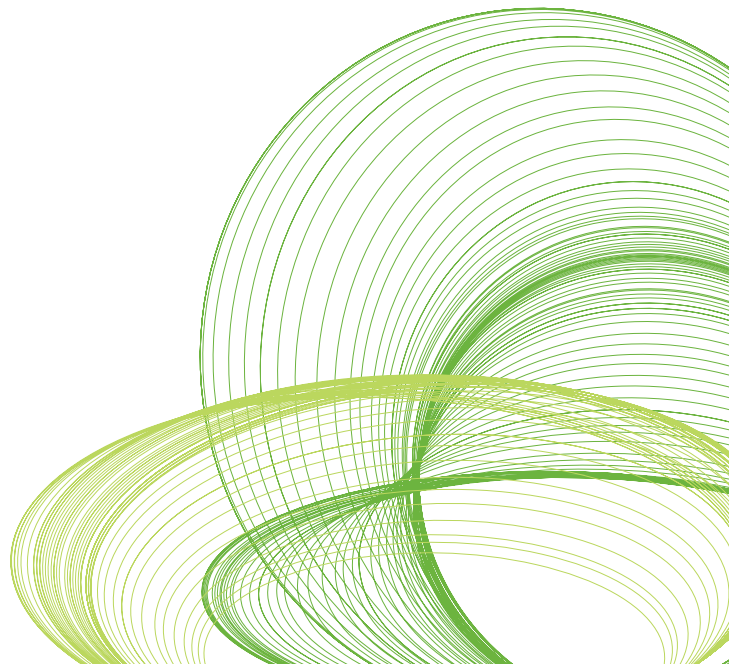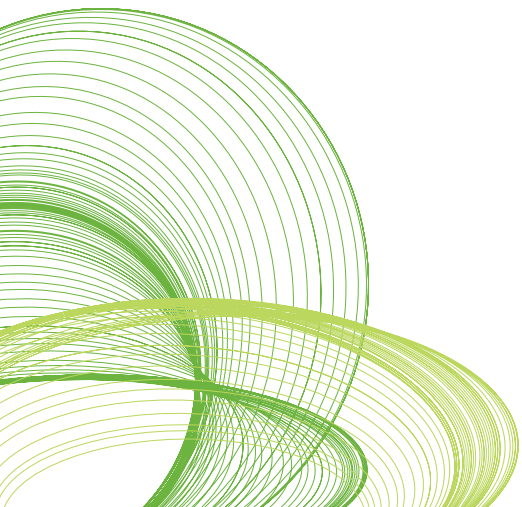July 2011

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# The Tectonic Plates Are Shifting in the BI Software Market

The promise of business intelligence (BI) software is to enable decision makers at all levels in an organization to leverage data for business advantage—to explore data, draw insights and meaningful conclusions, and make better decisions. Traditional BI solutions have delivered reliable, operational data tied to pre-defined, static reports—but haven't provided the self-service, on-the-fly, user-driven source of insight people crave for addressing daily business challenges.

IT organizations tend to favor report-based BI solutions from stack vendors like IBM, Microsoft, Oracle, and SAP. But business users are becoming more vocal, demanding, and influential than ever. They are going out and purchasing BI software on their own—and they're not buying traditional BI solutions.
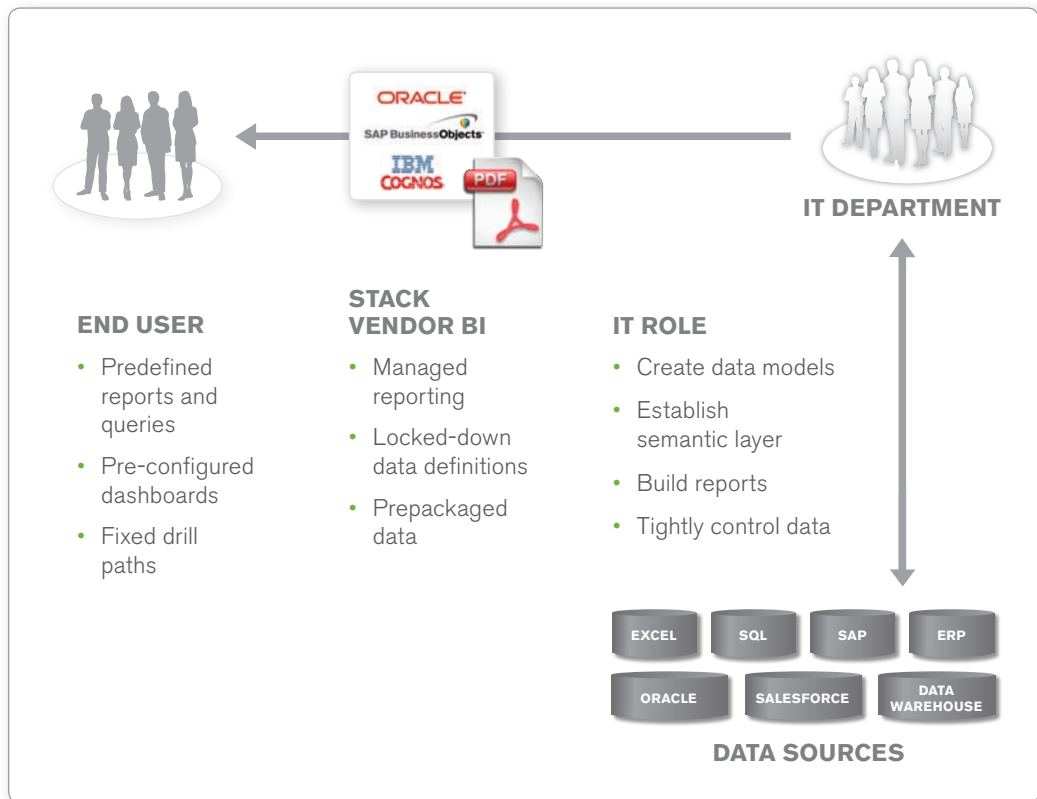
Business users are choosing what Gartner calls data discovery platforms, and we call Business Discovery platforms.[1] And they're buying in droves. According to market research firm IDC, end-user query, reporting, and analysis tools (which include Business Discovery platforms) comprised more than 80% of the BI tools market in 2010.[2] In this research, IDC found that smaller vendors such as QlikTech are outpacing the overall market growth.

# Traditional BI Is IT-Driven and Tightly Controlled

Analyst research shows that what business users want from BI is the ability to ask and answer questions on their own so they can make better business decisions. But traditional BI solutions aren't well-suited to users who need to directly interrogate or interact with data in a self-sufficient manner. Instead, what business users get from traditional BI is a report-centric solution (see Figure 1). They get fixed drill paths, predefined reports and queries, pre-configured dashboards, and locked-down data definitions.

With traditional BI, the role of the IT organization is to create data models, establish a semantic layer, build reports and dashboards, and protect and control the data. As a result of this intensive workload, user requests for new queries and reports can accumulate in a long queue, leading to user frustration and reducing the value the organization gets from its BI investments.

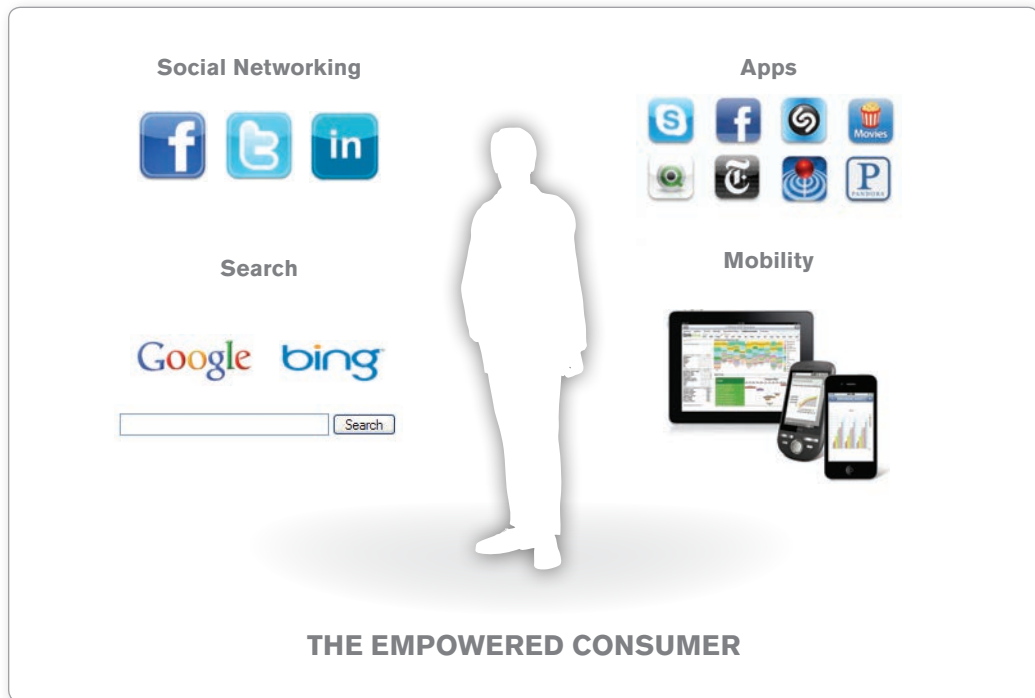**Figure 1: Traditional BI takes a report-centric approach**



**END USER**

- Predefined reports and queries
- Pre-configured dashboards
- Fixed drill paths

**STACK VENDOR BI**

- Managed reporting
- Locked-down data definitions
- Prepackaged data

**IT ROLE**

- Create data models
- Establish semantic layer
- Build reports
- Tightly control data

**IT DEPARTMENT**

**DATA SOURCES**

EXCEL | SQL | SAP | ERP
ORACLE | SALESFORCE | DATA WAREHOUSE

## Empowered Consumers Are Driving Change En Masse

People's expectations of business software have changed dramatically during the last decade. Applications from Google and Apple invite users to click on an icon, interact with a simple, friendly interface, and become instantly productive. The search bar, status box, "like" button, and multitouch screen have transformed the way people explore, consume, and share information (see Figure 2). Today, people want the same ease of use and high relevance from their business tools as they get from their consumer tools at home.

**Figure 2: Empowered consumers are driving change**



Social Networking

Apps

Search

Mobility

**THE EMPOWERED CONSUMER**

Several consumer trends are driving the tectonic shift that's taking place in the BI software market — and many other business software markets.

• **Internet search is the primary means of getting answers to questions.** Google has become a verb. Billions of consumers can fire up a browser, go to a search engine, and get answers to complex questions quickly with a high degree of confidence in the results. How many times have you been out with friends or sitting around the dinner table when one person questions another person's facts until someone whips out a handheld device and ends the debate instantly?

• **Humans are social creatures.** People make decisions large and small by combining data available to them (everything from movie times to investment opportunities) with the opinions, advice, experiences, and expertise of people they trust. People are using social networks and intuitive software to ask questions and share expertise, insights, and experiences. Social networks like Twitter, Facebook, and LinkedIn are enabling billions of people to share information, connect with each other, and develop robust professional and personal networks — with no technology background required.

• **People enjoy using targeted, task-specific apps.** Lightweight apps are changing the world. Apps are quick and easy to create and can be discarded when no longer needed. Developers are creating apps for multiple platforms: Mac desktop and laptop computers, as well as Apple iOS, Android, BlackBerry, and Windows tablets and handheld devices. Hundreds of thousands of lightweight apps are now available for everything from health management to banking to tracking tides and weather. The app model has significant implications for business software and the users it serves.

• **Mobile people want their tools and information wherever they go.** People are bringing their tablets and smartphones into the workplace so they can interact with people and information from anywhere. They want access to their full suite of tools wherever they happen to be working— whether at a colleague's desk, a remote sales agent's office, the factory production line, or the retail floor. When people can access their business apps and data "on location," they can combine the data they need with information they glean from the environment to reach new levels of insight.

## People Make Decisions Based on Multiple Sources of Insight

How do people make decisions? We make decisions based not just on hard numbers, but on inputs from the environment around us as well as interactions with other people. We take into account the opinions, ideas, experiences, and perspectives of others. Conversation and collaboration, as well as indicators from the physical environment, help create the context around data and drive better decision-making.

Consider these scenarios:

• **A sales manager works with agents to improve performance.** A regional sales manager who oversees a territory of agents wants to improve the productivity of sales efforts in the region. He uses his sales management app to identify low-performing agents, as measured by conversion rates (number of calls required to sell a product). He can see which customers each agent is calling and what products customers have purchased. The sales manager sets up an on-site meeting with each agent he has identified to revise sales plans and coach the agent on customer calling strategies. While onsite with one of the agents, the sales manager observes there is limited and outdated product information available, and the agent lacks an informed way to determine the right prospects to call or the best products to offer prospects. The manager walks through the agent's performance on his iPad, and shares his analysis of calling strategies that might be more effective. The sales manager and the agent then set up weekly check-in calls, during which they collaboratively navigate their sales and customer data as they refine their territory plan.

• **A quality inspection leads to change in the production schedule.** In a manufacturing company, during a routine inspection a quality manager discovers that a batch of components produced in the factory do not meet the customer's specification. He makes an annotation in his product quality app and the supply chain manager sees it. The supply chain manager uses his mobile device to determine whether supplies of the component are elsewhere in the network and can be diverted to meet the customer
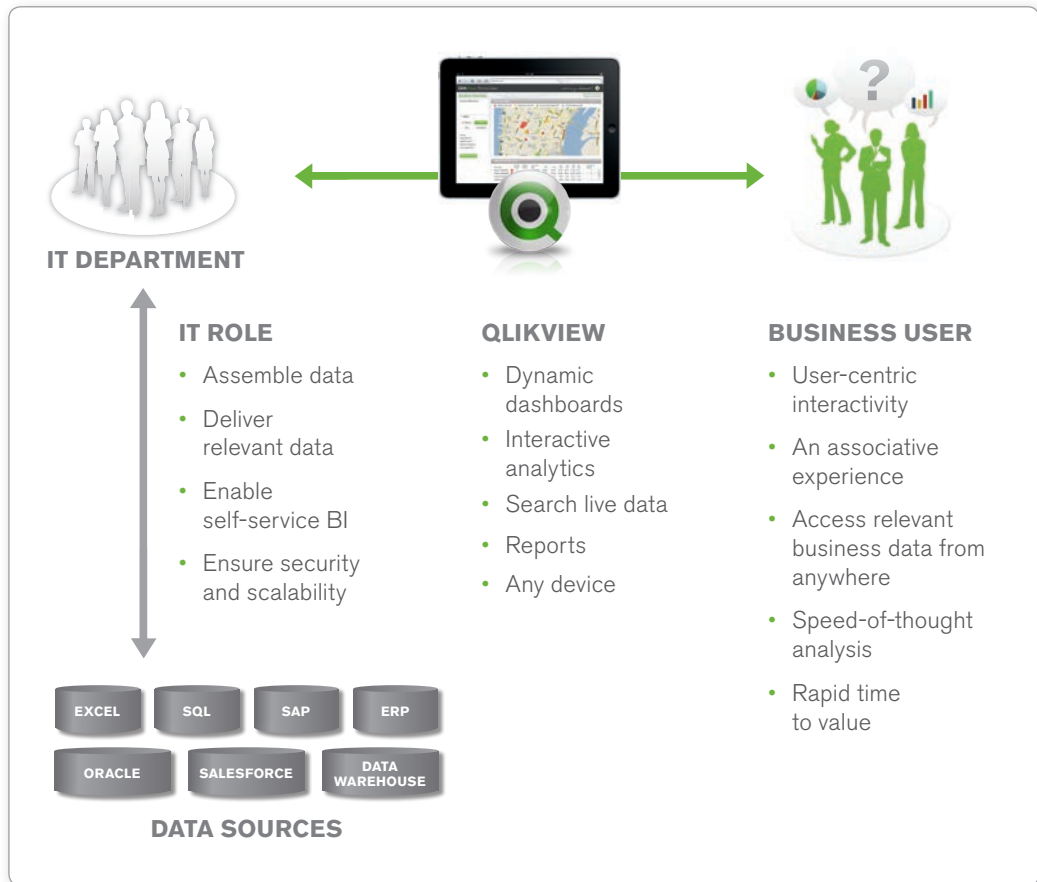
requirement or, alternatively, when the next production run is scheduled to occur. The supply chain manager needs to understand what the cost implications are, as well as the risk to other customer orders. He arranges a call with the sales and operations planning manager, logistics manager, and production manager and together they explore their options by collaboratively interacting with a set of analytic apps. They decide to modify the production schedule to produce another batch of parts.

- **An observation on the retail floor leads to increase in clothing orders.** A retail floor manager notices that throughout the morning a crowd continually gathers in front of an innovative new window display featuring the must-have clothing choices for summer. She notes her observation in a sales analytics app. A marketing manager sees this annotation and calls the retail floor manager. Together, they brainstorm ways to use a daily deal service to increase sales of the apparel products shown in the display. At the same time, the allocation manager for seasonal sportswear sees the annotation and reroutes replenishment destined for another market to fill the immediate customer demand, thus ensuring the store remains in-stock on hot selling items. The allocation manager's interest is peaked and soon he discovers that the window display products are selling nationwide—a great problem to have. He sets up a collaborative session with the retail buyer and product vendor to view inbound purchase order records. Together they make the decision to order 20% more of the items to support customer needs.

## Business Discovery Platforms Drive Insight Creation

Empowered consumers are bringing their expectations of technology into the workplace. They are voting with their pocketbooks and buying Business Discovery platforms that are quick to deploy, easy and fun to use, and adept at helping them solve business problems.[3] Business Discovery platforms deliver rich interactivity, an associative experience, access to relevant data — from anywhere, speed-of-thought analysis, and rapid time to value (see Figure 3). The role of IT organizations in Business Discovery is enabling self-service by assembling and preparing relevant data, helping to validate data, and ensuring security and scalability.

**Figure 3: Business Discovery is powerful, user-driven BI**



**IT DEPARTMENT**

**IT ROLE**
- Assemble data
- Deliver relevant data
- Enable self-service BI
- Ensure security and scalability

**QLIKVIEW**
- Dynamic dashboards
- Interactive analytics
- Search live data
- Reports
- Any device

**BUSINESS USER**
- User-centric interactivity
- An associative experience
- Access relevant business data from anywhere
- Speed-of-thought analysis
- Rapid time to value

EXCEL  SQL  SAP  ERP

ORACLE  SALESFORCE  DATA WAREHOUSE

**DATA SOURCES**

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Business Discovery is user-driven business intelligence that helps people make decisions based on multiple sources of insight: data, people, and the environment. With Business Discovery platforms, users can create and share knowledge and analysis in groups and across organizations. Business Discovery helps users ask and answer their own questions and follow their own path to insight. It enables teams of people to reach decisions collaboratively. Business Discovery delivers:

- **Insight everywhere.** Instead of just a few people involved in creating insights, Business Discovery enables everyone to participate. It's analogous to open source computing, peer creation, or open innovation. Business Discovery is about intelligence creation — rather than just information consumption. It is not about a big set of centrally-controlled, prepackaged, and tightly-distributed data delivered to passive end users. Rather, it's about providing data access and analysis to individuals and groups, and letting them get what they need more rapidly and precisely than ever before.

- **An app model.** No one needs the headache of deploying and managing monolithic business applications. Business Discovery platforms empower users of varying skill levels to contribute to the creation and deployment of straightforward, purpose-built, intuitive apps that can be easily reused — and discarded when no longer needed. Apps are easy to modify, mash up, and share, and enable innovation to flourish at the edges of the organization and spread inward. The new opportunity in BI is leveraging a model that lets any user quickly develop and deploy task-specific Business Discovery apps.

- **Remixability and reassembly.** Nobody can predict what questions business users will have when they start exploring data — not even the users themselves. Traditional BI solutions require IT pros to get and stay involved, creating new queries and reports whenever users come up with new questions. In contrast, Business Discovery platforms make it easy for business users themselves to remix and reassemble data in new views on their own and in groups, and to easily create new visualizations for deeper understanding.

- **A social and collaborative experience.** Discoveries are one thing — sharing them is another. Often the real value of a discovery is unlocked when a minor breakthrough in one part of the company leads to a major one elsewhere. Business Discovery is about nurturing communities of people who engage in active decision-making to drive knowledge that can cascade across an organization. Business Discovery enables users to collaborate on insights and move toward decisions either directly within their Business Discovery apps or through integration with enterprise collaboration tools like Microsoft SharePoint or Salesforce Chatter.

- **Mobility.** Business decision makers at all levels in an organization need data at their fingertips, wherever they are. Tablets and other large form factor mobile devices promise to make business data ubiquitous. Unlike traditional BI solutions, which address the need for mobile solutions by delivering static reports and dashboards to mobile devices, mobile Business Discovery platforms provide an intuitive interface and an application infrastructure that is tailor-made for users to explore data and draw associations and insights wherever they happen to be working.

## Business Discovery: The Next Generation of BI

Business Discovery is what's next in BI. With Business Discovery, business users pursue their own path to insight, make discoveries collaboratively, and arrive at a whole new level of decision-making. They make decisions based on multiple sources of insight: data, people, and the environment. With Business Discovery platforms, users are not limited to predefined paths they must follow, or questions they must formulate ahead of time. They ask what they need to ask, and explore up, down, and sideways rather than only drilling down in predetermined ways. While organizations will continue to need standardized reporting for some use cases, Business Discovery is the approach that ultimately fulfills the promise of BI.

# Appendix

**RELATED QLIKVIEW BLOG ARTICLES**

*The Consumerization of BI,* June 28, 2011
http://qlik.to/kjvgdZ

*"Social BI: How Do People Work, and What Tools Are Available?"* June 22, 2011
http://qlik.to/mz7Ikl

*"What's the Right Context for Deliver of Social BI?"* June 20, 2011
http://qlik.to/mPdzsL

*IDC Sizes BI Tools Market at $8.9B in 2010,* June 10, 2011
http://qlik.to/mRxqNp

*Design Thinking Supported by Business Discovery Can Drive Innovation,* June 8, 2011
http://qlik.to/lM6WOf

*You Can Have It Both Ways: Agility AND Governance,* June 6, 2011
http://qlik.to/mEFTSJ

*Self-Service BI: Power to ALL the People,* May 26, 2011
http://qlik.to/l3WYtv

*We're Quite at Home in HERO-Powered Organizations,* May 11, 2011
http://qlik.to/kjzZHE

*Don't Talk to Me About End Users!,* May 9, 2011
http://qlik.to/jojk43

*Five Use Cases for Mobile Business Discovery,* April 28, 2011
http://qlik.to/lJZEFw

*QlikView Can Help 'Yes People' Poke the Box,* April 15, 2011
http://qlik.to/m1qqAO

# End Notes

[1] According to Gartner, visualization-based data discovery tools are characterized by three attributes: a proprietary data structure to store and model data gathered from disparate sources, which minimizes reliance on predefined drill paths and dimensional hierarchies; a built-in performance layer that obviates the need for aggregates, summaries and precalculations; and an intuitive interface, enabling users to explore data without much training. See the June 17, 2011 report, "Emerging Technology Analysis: Visualization-Based Data Discovery Tools," available to Gartner subscribers here: http://qlik.to/iQtmJ7. QlikTech is the only data discovery vendor to have earned a spot in the Leaders quadrant in Gartner's 2011 Magic Quadrant for BI platforms. See the January, 2011 report, "2011 Magic Quadrant for Business Intelligence Platforms." You can download the document in its entirety here: http://qlik.to/eUtiXT.

[2] According to IDC, the size of the BI tools market in 2010 was USD $8.9 billion. Of this, end-user query, reporting, and analysis tools made up 81.3% of the market. See the press release about the June, 2011 IDC report, "Competitive Analysis: Worldwide Business Intelligence Tools 2010 Vendor Shares" (http://qlik.to/jNaHiS).

[3] QlikTech is one of the fastest-growing BI software vendors. In 2010, we had 44% year-over-year growth, from $157.4 million in 2009 to $226.5 million in 2010. For more information, see the March 16, 2011 Qlik Technologies Form 10-K, at http://qlik.to/kNDNRT.