



THE VISION FOR “QLIKVIEW.NEXT”

A QlikView White Paper

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qlikview.com

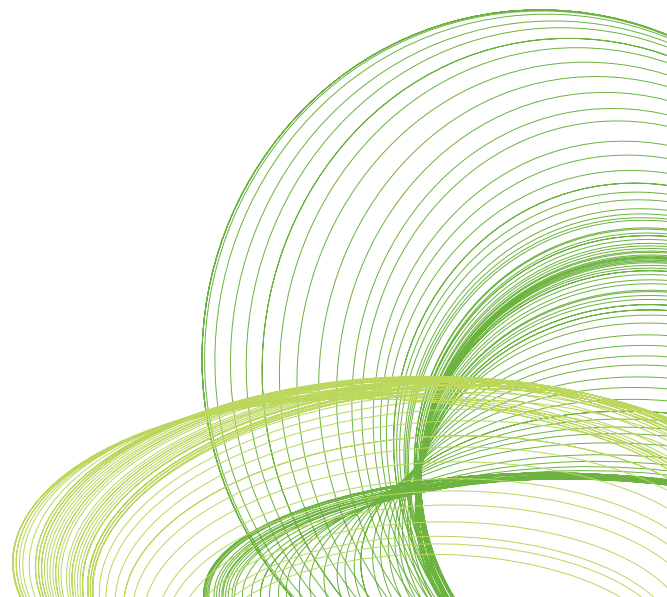
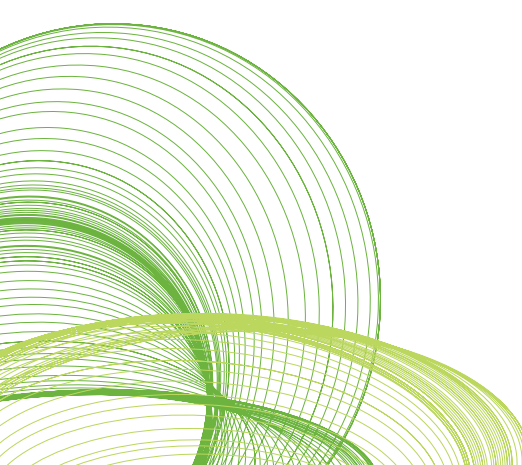


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WHAT IS BUSINESS DISCOVERY?

Business Discovery is user-driven BI that helps people make decisions based on multiple sources of insight: data, people, and place. Users can create and share knowledge and analysis in teams and groups across organizations. Business Discovery platforms help people ask and answer stream of questions and follow their own path to insight — on their own and in formal or informal groups. Business Discovery platforms deliver insight everywhere, an app model, mobility, remixability and reassembly, and a social and collaborative experience.

Executive Summary

The QlikView Business Discovery platform is well known for putting powerful capabilities in business users' hands via a simple, highly compelling user experience. To stay ahead of the rapidly-evolving needs of information workers and organizations everywhere, we are in development on a whole new generation of the QlikView Business Discovery platform, code-named "QlikView.next."

QlikView.next will be a series of software releases centered around five themes:

- **Gorgeous and genius.** QlikView.next will continue to win the hearts of QlikView business users and IT professionals alike with a user interface that is intuitive, fun, and highly productive. QlikView.next will make it easier than ever before for users to understand the context of numbers by exploring associations, comparisons, and implications.
- **Compulsive collaboration.** Compulsive collaboration is collaboration that is so natural and easy that people can't resist participating. QlikView.next will put QlikView at the forefront of users' shared decision making.
- **Mobility with agility.** This theme is about access to full Business Discovery from any device. We are designing the QlikView.next user experience starting with mobile first, rather than developing a desktop experience and then modifying it to work on tablets and smartphones.
- **Enabling the new enterprise.** With QlikView.next, IT pros will be able to optimize their QlikView environments and offer self-service Business Discovery to growing numbers of users, utilizing ever-increasing volumes and variety of data.
- **The premier platform.** With QlikView.next, we are continuing to focus on delivering platform capabilities like data connectivity and application programming interfaces to our customers and partners. This theme is about enabling customers and partners to quickly and easily deliver apps and solutions that are perfectly relevant to their users and customers.

At QlikTech we are moving full speed ahead to execute on our mission statement: "simplifying decisions for everyone, everywhere." The primary influences on our vision for QlikView.next include the consumerization of business software, social software taking root at work, pervasive mobility and device independence, and the Big Data explosion.

THE PRIMARY INFLUENCES ON OUR VISION

Our vision for QlikView.next is influenced heavily by:

- The consumerization of business software
- Social software taking root at work
- Pervasive mobility and device independence
- The Big Data explosion

Information Workers Are Today's Hunter-Gatherers

Information workers are mobile, social, hunter-gatherers. We go off in search of the data we need using the tools we have at hand or build. Just like the hunter-gatherers of old, we navigate a vastly complex information environment to find the relevant nuggets of value. We work with others to complete our missions. Whether modern or historic, the hunter-gatherer's goal is to get to what's relevant as quickly and easily as possible.

The trouble is that in today's world:

- **A plethora of information worker tools is available . . .** We have access to content creation tools, search engines, email, social software, phones and voice over IP (VoIP), documents and databases, spreadsheets, and business intelligence (BI) tools. These technologies sprouted up to try to help information workers and consumers ask and answer questions. An information worker has access to dozens, even hundreds — perhaps thousands — of tools, some sanctioned by IT and others not. Information workers loosely assemble these tools into toolkits to get their work done.
- **. . . But the perfect solution for decision support is still emerging.** Information is vast. The volume of digital content in the world will increase by nearly 50% in 2012 to 2.7 billion terabytes.¹ Information workers waste time trying to get to what's correct and relevant. On average, they send 41 email messages a day and receive approximately 100.² Roughly 20% to 40% of spreadsheets have errors in them.³ Fewer than 30% of the potential users of an organization's standard BI software use the software today — maybe even as few as 10%.⁴ All this makes it hard for today's hunter-gatherers to find the relevant nuggets of value in the vast world of data available to them.

So how does a Business Discovery platform provider like QlikTech improve the quality of life for information hunter-gatherers? Reach deeper into the untapped 70% to 90% of potential BI software users? How will we achieve our goal of growing to \$1 billion in annual revenues and touching a billion lives?

By listening carefully to what our customers and the market are telling us and crafting a new generation of Business Discovery software.

WHAT ABOUT CLOUD AND SAAS?

We are seeing a pull from the market for purpose-built, task-specific software applications that are easy for customers to acquire and learn to use. These apps can be deployed in the cloud via a SaaS model — especially effective when the data is also in the cloud.

Who's delivering these domain- and industry-specific apps? Our OEM partners. QlikView is so easy to use and deploy that our partner community is creating hundreds of these apps to solve specific customer challenges. They range from specialized areas of market research, to contact center management, sports statistics, workforce management solutions, sales tracking specific to mutual fund companies, and more.

When it comes to enterprise BI deployments, some real challenges remain to be solved regarding what data customers are willing to put in the cloud and how they would get the data there. From a pure deployment perspective, however, QlikView can easily run on cloud infrastructure — for example we ourselves run our own demo site in the Amazon cloud.

Influences on Our Vision

Our customers and customers-to-be often ask us where we are going with QlikView and how we decide what to include in each new release of the product. We draw on the creativity and passion of our customers (for example, by carefully monitoring activity taking place in our 70,000+ member QlikCommunity).⁵ We engage our partners and field sales and marketing professionals in dialog about what they are seeing in their industries and regions. We work with leading industry analysts to better understand technology trends and directions. And we hire the best talent we can find!

Leveraging all of these resources, we are focusing our investments in QlikView.next on five key theme areas, driven by important industry trends.

THE CONSUMERIZATION OF BUSINESS SOFTWARE

Our expectations of technology in the workplace are molded by the experiences we have as consumers. We have become accustomed to interacting with electronics in our homes and vehicles. Technology companies like Apple, Facebook, and Google have leapt ahead of the business software market when it comes to marrying sophisticated technology with an easy, friendly user experience. In today's world:

- **Information workers obtain the tools they need.** Despite the prevalence of document repositories, file shares, email, and phones — all intended to meet information workers' hunter-gatherer needs — a growing number of business people use non-corporate-sanctioned tools. Forrester Research has found that 16% of information workers in North America and Europe (or 34 million) have installed unsupported software in the past year to help them do their jobs.⁶ At peak times, for example, Skype has more than 30 million users online and Dropbox has 45 million users around the globe — many of them accessing the service for work-related purposes.⁷
- **People want to create and build, not just consume.** Gartner phrased it well: "The Internet is now the tool — the 'machinery' — that ordinary people are using to shape their interactions with the world at large . . . to self-design and consume unique experiences."⁸ When the complexity of underlying technology is hidden behind a great user experience, magic can happen. As an example, check out the November 2011 TEDx video presentation by then-12-year-old iPhone app developer Thomas Suarez.⁹ Today, it's not enough for information workers to want to be able to access information on their own; they want to *create experiences* for themselves and others.

We are focused on delivering the software platform our customers and partners need to be able to provide the best analytic solutions to their constituencies. We will continue to invest and evolve to meet the needs of our customers and partners, regardless of how they want to deploy QlikView.

- **The first few minutes matter — a lot.** You may have had this experience yourself: you download an app from the Apple iTunes app store and try it out. It is clunky or boring or too hard to figure out, so you delete it from your device right away. Or you close the app and never touch it again, leaving it there to fill up storage space. Our expectations are sky-high and loyalty fickle. As a result, user experience designers must pay very close attention to those first few minutes.

SOCIAL SOFTWARE IS TAKING ROOT AT WORK

People collaborate with each other at work, with or without software tools. But with good tools people can be more efficient at collaboration and can engage in it on a broader scale.

- **Information workers are beginning to adopt social software.** According to Forrester, 21% or 44 million information workers in North America and Europe are using social networking sites for work at least weekly.¹⁰ In other research, Gartner found that adoption of enterprise social software varies by industry but common use cases include sharing experiences; finding relevant people and content; building relationships among geographically distributed people; and creating new insights, market analysis, and competitive advantage.¹¹
- **Social software is more than just fun — it improves productivity.** Forrester has found that more than half (51%) of information workers who use social software for work feel they are able to be productive during a workday, versus 43% of information workers who don't use social software for work.¹² Survey respondents said that they use social software for work because it is easy to learn to use, addresses their job needs, and is the most efficient means of accomplishing specific tasks. Effective collaboration — combining the brain power of multiple people — can result in competitive advantage. At QlikTech we want to help organizations capitalize on this opportunity.

PERVASIVE MOBILITY AND DEVICE INDEPENDENCE

With a laptop, headset, and Internet connection — or, increasingly, just a tablet and smartphone — many information workers can get their jobs done anywhere. As smartphones and tablets continue to get more powerful — and new forms of mobile devices emerge — people will increasingly use them for much more than just “consuming” Internet content. What it means to be mobile is changing, as:

- **Mobile devices are out-shipping PCs.** By the end of 2012, enough mobile devices will have been sold to cover more than a quarter of the world's population; Gartner forecasts that worldwide sales of mobile devices will reach 1.9 billion units by the end of 2012.¹³ And according to IDC, “mobility wins” will be the top theme of 2012 as smartphones and tablets out-ship PCs by more than 2 to 1 and generate more revenue than PCs for the first time.¹⁴
- **Apple is just one of many providers.** Apple revolutionized the smartphone and tablet markets with “magical” devices and remains a major player with hundreds of millions of iPhones and iPads sold to date. Yet the diversity in available devices is increasing. By the end of 2012, sales of mobile devices with open operating systems will reach 633 million, to represent 33% of the market, and the number of Android apps will exceed those for Apple's iOS.¹⁵
- **Information workers are acquiring their own mobile devices and apps.** Ten years ago it was nearly unheard of for information workers to pay for their own tools (other than the self-employed). Not so, today. Forrester has found that 25% of (or 53 million) information workers in North America and Europe use a smartphone for work and nearly 40% of those chose and paid for the device themselves.¹⁶ It's not just about hardware, either; smartphone and tablet users also choose their own apps.

THE BIG DATA EXPLOSION

IDC predicts that the volume of digital content in the world will increase to 2.7 billion terabytes (2,700,000,000,000 gigabytes) in 2012, up 48% from 2011, and will rocket toward 8 billion terabytes by 2015.¹⁷ This data exists in myriad formats ranging from sales figures and transaction data to machine-generated log files to unstructured text, video, pictures, and more. During the last two decades, organizations have made significant investments in automating business processes with software applications that generate substantial amounts of data. Yet, still:

- **Just as there is a “last mile” problem in the telecom industry . . .** Cable and Internet providers have brought miles and miles of pipes, cables, and wires into cities, towns, and villages around the world. But stringing the line to the end point — the individual home — is an expensive, cumbersome proposition. Even if a town has been wired with the highest-speed Internet, all that capacity is wasted unless it can be consumed by the customer. Simply put, failure to go the last mile renders the first 1,000 miles useless.
- **. . . There is also a last-mile challenge with Big Data.** Many technology providers are focused on processing the massive volume and variety of data being generated every day. Assuming that a massive volume of data can be processed and managed, how do you deliver relevant information to business users? How do you empower information workers with self-service? How do you simplify decision making? Without a great Business Discovery tool in their hands, all the Big Data infrastructure in the world is of little value to business users.

THE FIVE THEMES OF QLIKVIEW.NEXT

Our QlikView.next development efforts are organized around five themes:

- Gorgeous and genius
- Compulsive collaboration
- Mobility with agility
- Enabling the new enterprise
- The premier platform

Hunter-gatherer information workers are challenged to efficiently access and filter data to quickly and easily find what's relevant – and then analyze it and gain insights. They need easy ways to navigate through the massive volume and variety of data to get answers to their questions. They need to be able to explore the data on their own and in groups, create new insight, and make discoveries that help them innovate.

The Five Themes of QlikView.Next

According to research by MIT Sloan Management Review and IBM Institute for Business Value, better business outcomes arise from making data-driven decisions instead of relying on intuition alone.¹⁸ At the same time, it's not realistic to expect that good business decisions can rely solely on data and ignore peoples' intuitions, relationships, experiences, and perspectives.

Holistic decision making relies on multiple sources of input, some quantitative (hard numbers) and some qualitative (e.g., others' opinions, observations, questions, and ideas – sometimes gleaned while out “on location”) (see Figure 1). Conversation and collaboration, as well as indicators and information from the world around us, help create the context around data and drive better decision making.

Figure 1: People Make Decisions Based on Multiple Sources of Insight



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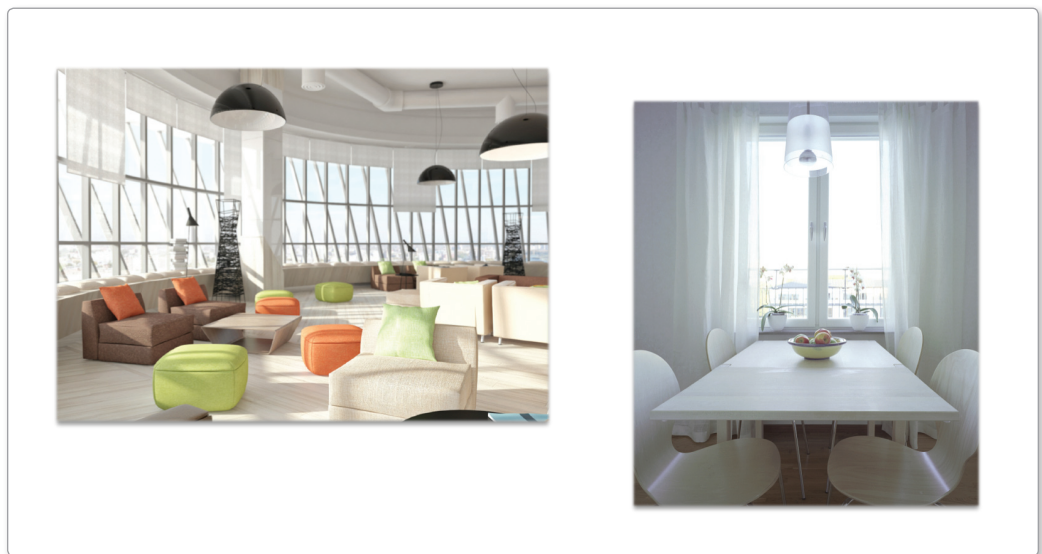
To stay ahead of the rapidly-evolving needs of information workers and organizations everywhere, we are in development on a series of new software releases code-named QlikView.next. Guiding our work is QlikTech's mission statement: simplifying decisions for everyone, everywhere. We have organized our efforts around five high-level themes.

GORGEOUS AND GENIUS

The best design — whether for a medical device, piece of furniture, or business software application — invites and encourages use. It is so beautiful, so alluring, that people can't help trying it out. QlikView.next will continue to win the hearts of QlikView business users and IT professionals alike with a user interface that is intuitive, fun, and highly productive.

- **QlikView.next is rooted in the Scandinavian design tradition.** Scandinavian design is recognized worldwide for excellent functionality along with clear aesthetics (see Figure 2). With QlikTech's Swedish heritage, we are working on beautiful design following in the Scandinavian tradition. We're not talking just about the look and feel of the software. We're talking about the entire user experience — from the very first launch, through creation of apps, to deployment of apps to the target user community. QlikView.next will appeal to the right side of the brain as well as the left. It will provide the delightful, fun experience that people have come to expect from technology, thanks to gorgeous user experience innovations from companies like Apple and Google.
- **Sophisticated technology underpins a lovely skin and simple experience.** Users want to be able to engage with their analytics via a singular user experience on any platform. They want to be able to interact with many kinds of analytics; they don't care if it is called basic, statistical, or predictive analytics — they just want to be able to ask and answer streams of questions that enable them to make the right business decisions. QlikView.next will help users better understand the *context* of numbers through an intuitive user experience — for it is context that gives people an appreciation for the numbers.

Figure 2: Gorgeous and Genius: The Best of Scandinavian Design



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More than Just a Pretty (Inter)Face

It's not enough to be just gorgeous. Going back to the earlier examples, the user has to be able to perform tests using the medical device, sit comfortably on the chair, and get real work done using the software — more easily, comfortably, or quickly than they are able to with alternatives.

When you look at a number — say, the number of kilometers between Brisbane and Perth, Australia (4,336), or the number of leads generated from a marketing campaign — how do you know if the number is big or small, good or bad? In the case of Australia, with nothing to compare it to (e.g., circumference of the earth) it's hard to grasp just how far it is (it covers more than 10% of the circumference of the entire earth, which is roughly 40,000 km). We know whether a number is big or small, good or bad, based on:

- **Associations.** What is the number's relationship to other numbers (e.g., the number of staff working on the marketing campaign or which lists were used for the campaign)? What do your peers think about the number? (What does the VP of marketing think about the number of leads? How about the VP of sales?)
- **Comparisons.** Is the number bigger or smaller than it was before? What were your expectations of the number? How big or small is it compared to related numbers (e.g., the number of leads from earlier marketing campaigns, or best-in-class industry numbers)?
- **Implications.** What are the implications of the number? What does the number mean for the decision being made? (If the number of leads from the marketing campaign is less than expected, how will the sales pipeline be affected — and what must be done about it? If leads are greater than expected, is the infrastructure in place to handle an influx of orders?)

QlikTech revolutionized the BI platforms market by making it easy for business users to gain insights from data sourced from multiple systems. With our investments in the Gorgeous and Genius theme, we want our users to feel warmly welcomed by their Business Discovery platform. QlikView.next will make it easier than ever before for users to quickly derive meaning and insight from data, people, and place, and to make better business decisions wherever they are. As part of our work in this area, we are making it even easier for developers and business users to create and modify apps.

COMPULSIVE COLLABORATION

Compulsive collaboration is collaboration that is so natural and easy that people can't resist participating. Users can communicate with each other and participate in shared exploration, discovery, and decision making without even thinking about it; it is second nature to them. Collaboration tools are so tightly integrated into the decision environment that it would take more effort to *not* use the tools that it would take to use them.

There are many ways to collaborate. Think about people making music together (see Figure 3). A few jazz musicians go off on a riff, improvising around a loose theme. The conductor for a musical works together with the orchestra and singers on stage, guiding and leading the performers to give their very best. A string quartet plays a complex piece, each musician with his or her own carefully-prescribed role. A recording artist mixes tracks laid down by various musicians at different times and integrates the tracks together into a cohesive whole.

Figure 3: Compulsive Collaboration: Many Ways to Make Music Together

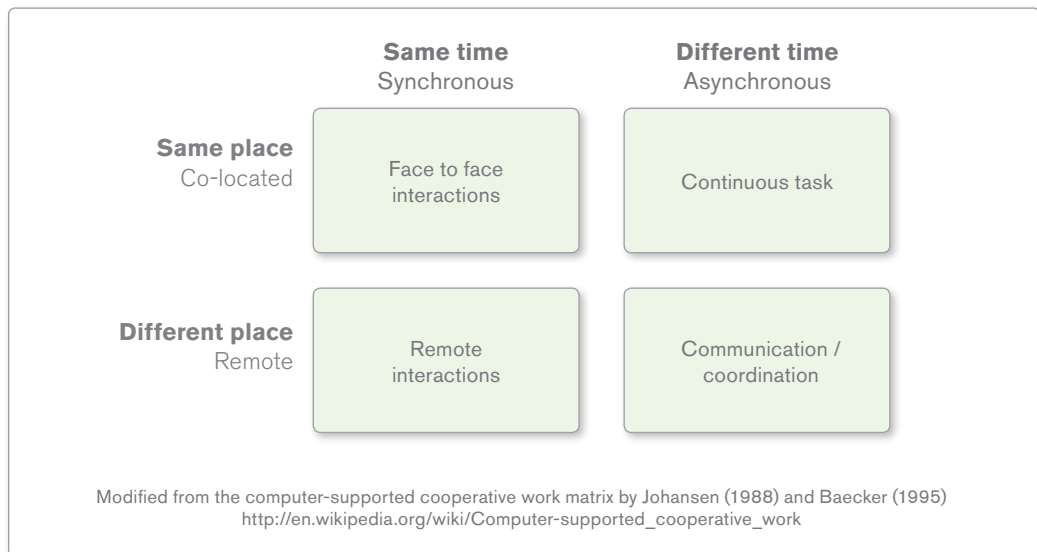


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Collaboration Requirements Change Depending on Place and Time

Just as with artists creating music, decision making is a highly collaborative activity, with many forms of communication and joint work taking place. Think about how many meetings you have attended for brainstorming, planning, project status updates, and problem solving. The trouble is that people can't always be in the same place at the same time. Peoples' requirements for tools to support communication and collaboration vary depending on where they are and whether they can communicate in real time (see Figure 4).

Figure 4: Collaboration Requirements Depend on Place and Time



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With Business Discovery, BI capabilities aren't separate from collaboration tools. The two are inextricably linked because making decisions based on data requires people to collaborate, and the whole point of collaboration is to make decisions (which, in turn, require data as a source of input).

With the Compulsive Collaboration theme, we are putting QlikView at the forefront of users' shared decision making. For example, one of the common activities people undertake today with QlikView is sharing insights and soliciting inputs into decisions. With QlikView.next we will make it easier for users not only to find and share insights collaboratively but to tell stories about the discoveries they have made and the conclusions they've come to.

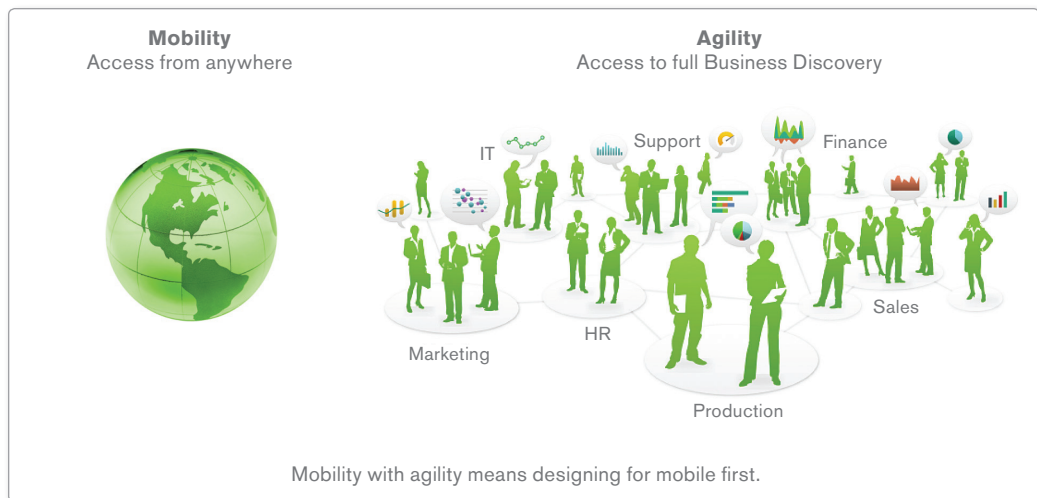
MOBILITY WITH AGILITY

Mobility is a critical enabler of people being able to derive insights from being in a particular place at a particular time. Information workers who are away from their desks or on the road come across new situations and challenges. They must be able to explore hypotheses in their data and make discoveries while they are out on location (see Figure 5).

Mobility with agility is so important that we are designing QlikView.next *starting with a mobile experience* – rather than developing a desktop experience and then modifying it to work on tablets and smartphones. Whether on a smartphone, tablet, or laptop, the QlikView.next user experience will enable people to derive insights from data, people, and place. The core tenets of our Mobility with Agility theme are:

- **Access from anywhere.** Gartner has identified several advantages tablets and smartphones have over desktop and laptop computers, when it comes to BI.¹⁹ These devices are truly mobile (you can take and use them anywhere), engaging (with touch screen interfaces, a visually attractive user interface, and a “coolness factor”), convenient (the device is always nearby and the user can switch it on instantly, in the middle of a conversation, without plugging anything in), and capable (with features like global positioning system and sensor integration).
- **Access to full Business Discovery.** Users shouldn't have to care about which platform they are using, from among the myriad flavors of laptops, tablets, and smartphones. They should be able to get to their analytics – *all* their analytics – in a carefree way on any device. This is what we mean by agility. Empowered information workers need a mobile offering that doesn't limit their freedom. They need more than static screens or restricted viewing of a standardized data model. In fact, we're taking it even further: with QlikView.next we're also talking about developers and business users being able to modify or even create Business Discovery apps from scratch from anywhere, on any platform.

Figure 5: Mobility With Agility

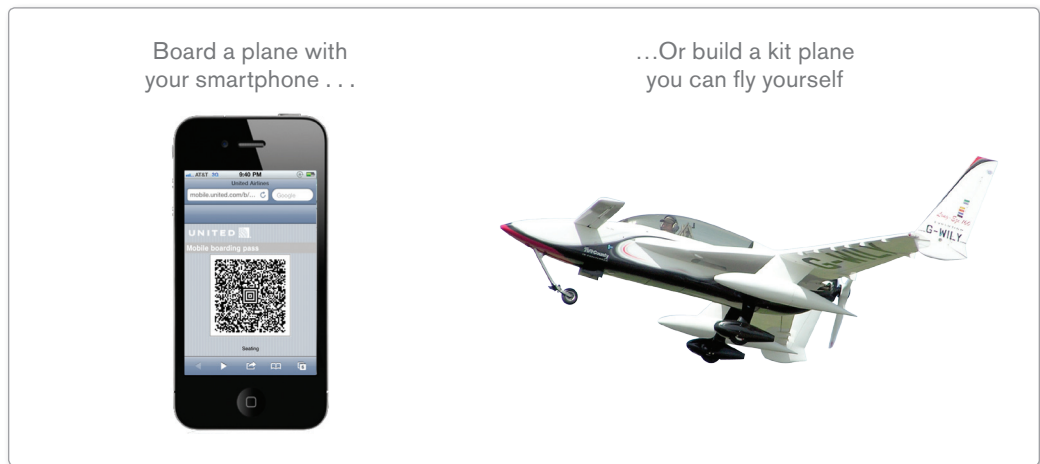


ENABLING THE NEW ENTERPRISE

We live in the empowerment age. You can purchase a plane ticket, check in for your flight, and board a commercial plane all on your own, while talking with very few people and without printing a single piece of paper. If you *really* like aviation you can take empowerment to its extreme and build your own craft from a kit (see Figure 6).

The new enterprise is a new kind of organization that is built and fueled by empowered people — people who manipulate data, acquire the tools they need to get their jobs done, and create their own content, mashups, or apps. Information workers in these organizations are free to innovate with new technologies. IT supports them with self-service tools and platforms. In this modern organization, IT is seen and treated as an important enabler of other parts of the business, rather than as separate from the business.

Figure 6: We Live in the Empowerment Age



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In the new enterprise, the role of IT in business intelligence is not about creating all the dashboards and reports users might possibly need. Instead, IT's role is about ensuring security, compliance, and auditability and provisioning users with high-quality data, excellent performance, and self-service Business Discovery. IT shifts from being the *providers* of BI to serving as the *enablers* of BI. To enable the new enterprise, QlikView.next will deliver:

- **Even greater empowerment of IT.** QlikView has already transformed the BI platforms market with user-driven, self-service Business Discovery. With QlikView.next, we are sharpening our focus on supporting IT organizations in the new enterprise. We are making investments to enable IT to manage and monitor QlikView as a service, rather than as a set of individual apps. We're working on putting gorgeous and genius tools in the hands of IT to help them simplify the decisions they have to make.

- **Expanded enterprise-class capabilities for IT.** QlikView has been winning the hearts and minds of business users, and is increasingly IT's BI platform of choice too — especially for Business Discovery. With QlikView.next we will deliver highly advanced technology that has many years of development behind it. Since the late 1990s, we have added new and improved enterprise capabilities in each release, and we will continue on this path with QlikView.next. With QlikView.next, IT pros will be able to optimize their QlikView environments, offer self-service Business Discovery to growing numbers of users, and manage even the very largest deployments with insight and simplicity.

THE PREMIER PLATFORM

Part of QlikTech's vision is to touch a billion lives. We can't do this on our own — we are relying heavily on our partners to help us reach this goal. With QlikView as the premier platform, we want our partners to make more money from QlikView than QlikTech makes from it. Visualizing and analyzing data pervades everything we do at QlikTech — and we want to make it easy for developers to incorporate QlikView's capabilities in everything they do.

QlikTech already has more than 1,200 partners around the globe, many of whom extend QlikView and embed it in their offerings. Our planned investments in the QlikView platform will enable us to expand this ecosystem, with additional capabilities in areas such as:

- **Data connectivity.** QlikView.next will continue along our trajectory of QlikView as a platform on which partners can build engaging apps and solutions. We are making investments in data connectivity so partners can deliver additional compelling solutions to their customers for consuming and analyzing just what's relevant from the masses of available data.
- **Application programming interfaces.** With QlikView.next, we are investing in our APIs. We want the same APIs that we use for development at QlikTech to be available to our customers and partners so they can extend QlikView and build apps and solutions on top of it — for delivery anywhere, anyhow, including SaaS or the cloud.

We are aware that at QlikTech we will not be able to deliver, or even imagine, all the use cases and creative applications our customers and partners will come up with. We are focused on delivering to our customers and partners the platform capabilities that enable them to deliver relevant apps and solutions to their users and customers. The QlikView.next platform will make it easier than ever before for QlikTech partners to create analytics-based apps as varied as procurement, portfolio management, market research, sports statistics, on content center management — or any others.

QlikView.next: Simplifying Decisions for Everyone, Everywhere

The QlikView Business Discovery platform is well known for putting powerful capabilities in business users' hands via a simple, highly compelling user experience. The five themes of QlikView.next promise to launch QlikView far beyond what is commonly thought of as business intelligence, or even data discovery, today. QlikView 11 will meet the needs of information workers everywhere with gorgeous and genius software that induces people to collaborate. It will further empower information workers, providing mobility with agility. It will enable the new enterprise, delighting the IT pros who will be delivering it. And we will accomplish this with a growing network of world-class partners leveraging the premier Business Discovery platform.

Appendix

RELATED QLIKVIEW WHITE PAPERS

Social Business Discovery: Optimizing Decision Making, October 2011
<http://qlik.to/nUvmR4>

QlikView on Mobile: Beyond Reporting, October 2011
<http://qlik.to/yJgxHz>

What Makes QlikView Unique, August 2011
<http://qlik.to/pftOZn>

Business Discovery: Powerful, User-Driven BI, July 2011
<http://qlik.to/qbA9wv>

QlikView Product Roadmap, December 2010
<http://qlik.to/fkf0Cv>

The Associative Experience: QlikView's Overwhelming Advantage, October 2010
<http://qlik.to/eC8aKP>

QlikView Architectural Overview, October 2010
<http://qlik.to/eS7xFV>

End Notes

- ¹ IDC predicts that by 2015 there will be 8 billion terabytes of data in the world. For more information see the December, 2011 IDC report, "IDC Predictions 2012: Competing for 2020" (available to IDC subscribers, or for purchase).
- ² See the September 26, 2011 Radicati Group press release, "The Radicati Group Releases "Survey: Corporate Email, 2011-2012" (<http://qlik.to/x0o9Uz>).
- ³ See "What We Know about Spreadsheet Errors," Raymond R. Panko, *The Journal of End User Computing*, revised May 2008 (<http://qlik.to/v7149x>).
- ⁴ See the June, 2011 Gartner report, "The Consumerization of BI Drives Greater Adoption." Forrester Research provides a similar estimate to Gartner's regarding penetration of BI tools inside organizations. According to Forrester, "Anecdotal evidence indicates that less than 30% of information workers use enterprise BI solutions; this number is often even as low as 10%." Forrester based this estimate on findings from its *Q4 2010 Global BI Maturity Online Survey*. For more information see the January, 2012 Forrester report, "The Future of BI."
- ⁵ QlikCommunity (<http://community.qlikview.com>) is the global online community for QlikView, bringing together developers and business professionals to interact, learn and share their experiences.
- ⁶ See the January, 2012 Forrester Research report, "Consumerization Will Erase Boundaries between Corporate and Consumer Technology Markets."
- ⁷ See the Dropbox company web site here: <https://www.dropbox.com/about> and the Skype company web site here: <http://about.skype.com/>.
- ⁸ See the October, 2011 Gartner report, "Maverick* Research: Never Mind Consumerization; There Will Be No Consumers as We Know Them."

- ⁹ Watch the video of Thomas Suarez's TEDx Manhattan Beach presentation on YouTube here: <http://www.youtube.com/watch?v=ehDAP1OQ9Zw>. Also see the related article, "A Big Part of Consumerization Is 'I Want to Do It Myself'" on The QlikView Blog at <http://qlik.to/wkN480>.
- ¹⁰ Forrester's recent survey of 4,985 US information workers shows that we're still at the starting gate, when it comes to workforce adoption of social and collaboration tools. For more information, see the October, 2011 Forrester report, "The Enterprise 2.0 User Profile: 2011" and see the January, 2012 Forrester Research report, "Consumerization Will Erase Boundaries between Corporate and Consumer Technology Markets."
- ¹¹ Gartner uses the term "social software" for technologies that facilitate free-form interactions and reflect the relationships between individuals, and that provide tools for collaboration, communities, and networking to stimulate large-scale participation through informal interactions and aggregate these interactions into a framework that reflects the collective attitudes, dispositions and knowledge of the participants. See the May, 2011 Gartner report, "User Survey Analysis: Enterprise Social Software Adoption by Vertical Industry, 2011."
- ¹² See the October, 2011 Forrester report, "The Enterprise 2.0 User Profile: 2011."
- ¹³ See the January, 2012 Gartner report, "Forecast Analysis: Mobile Devices, Worldwide, 2008-2015, 4Q11 Update."
- ¹⁴ See the December, 2011 IDC report, "IDC Predictions 2012: Competing for 2020."
- ¹⁵ For more information see the January, 2012 Gartner report, "Forecast Analysis: Mobile Devices, Worldwide, 2008-2015, 4Q11 Update." Also see the December, 2011 IDC report "IDC Predictions 2012: Competing for 2020" (available to Gartner subscribers or for purchase) and the January 24, 2012 Apple press release, "Apple Reports First Quarter Results" at <http://qlik.to/y4TkSl>.
- ¹⁶ See the January, 2012 Forrester Research report, "Consumerization Will Erase Boundaries between Corporate and Consumer Technology Markets."
- ¹⁷ See the December, 2011 IDC report, "IDC Predictions 2012: Competing for 2020."
- ¹⁸ Organizations that researchers deemed "aspirational" rather than "experienced" or "transformed" tend to rely on intuition rather than data to make decisions. See the report, "Analytics: The Widening Divide," MIT Sloan Management Review, Fall 2011" accessible on the web at <http://qlik.to/xoCzXl>.
- ¹⁹ Smartphones and tablets, with their smaller screens, easy-to-use touch screen interfaces and new capabilities, open the opportunity for mobile BI, with innovative use cases and adoption by new user constituencies. For more information see the August, 2011 Gartner report, "Mobile Devices Create New Opportunities and Foster BI Adoption."