



Business Intelligence:

Actionable Insights for Business Decision Makers

by Don Tapscott

Executive Summary

ALTHOUGH MANY organizations have made significant investments in data collection and integration (through data warehouses and the like), it is a rare enterprise that can analyze and redeploy its accumulated data to actually drive business performance. Adding to this conundrum is the vast quantity of external data generated on the Internet, where billions of connected individuals use the tools of wikinomics to actively participate in innovation, wealth creation and social interaction. To gain greater business insight and transparency, organizations urgently require a new generation of business intelligence (BI) tools and applications that will allow cross-enterprise, inter-enterprise and external data to be integrated and analyzed. Companies that are able to effectively harness the copious amounts of information IT systems generate will have the inside track on the competition: gaining better understanding of customer needs, identifying trends earlier, and using the resulting lead time to capitalize on opportunities. In the years to come, as globalization and increased reliance on the Internet further complicate, accelerate and intensify marketplace conditions, actionable business intelligence promises to deliver a formidable competitive advantage to firms that leverage its power.

1.0 Value Proposition

Howard Gardner, professor of Cognition and Education at the Harvard Graduate School of Education, defines intelligence as “the ability to detect patterns and to detect changes in those patterns.”¹ Today’s interpretation of business intelligence is consistent with this definition. No longer limited to the traditional and narrow development of “reports for users,” BI now encompasses the use of data to derive insight and gain a competitive advantage. In this paper, we focus on how this is achievable.

BI technologies have been an important underpinning of business success since the term was coined in 1989 to describe a set of concepts and methods for improving decision making using fact-based support systems. From the earliest days of enterprise computing, leading edge organizations adopted executive information systems—the predecessors of today’s BI solutions—because these firms understood that decisions should be based on facts, not opinions or conjecture. As Dr. W. Edwards Deming famously opined, “In God we trust, all others bring data.”²

These early systems helped organizations evaluate historic performance and modify current activities to pursue strategic goals. And while they provided significant value, these systems were often constrained by inherent challenges, such as complexity and data limitations—problems which continue to the present day. A 2007 survey of CIOs asked whether management believed it had access to “the right information to run the business.” A whopping sixty-four per cent of respondents replied “no.”³

As noted in my recent book, *Wikinomics*, historically, internal data has been accessible. Now, for the first time, it is being supplemented by massive quantities of external data that is created as consumers and employees utilize the new tools of mass collaboration (such as wikis, blogs and social networking sites) to actively participate in innovation, wealth creation and social interaction. The marriage of this newly accessible data with the firm’s traditional internal data presents an unprecedented opportunity to gain insight into the behavior of the company’s most important stakeholders and translate that knowledge into success in the marketplace.

Recently, the technology required to deliver powerful BI and insight utilizing this data has dramatically improved. In this paper, we will examine how technological advances are enabling improved decision making across three broad dimensions: simplicity and relevance, agility, and integration. Specifically, software applications are becoming more usable and useful; inexpensive storage and processing power is helping to manage and utilize data and sophisticated networks more effectively; and services-oriented applications are allowing businesses to integrate data from disparate sources to provide deeper insight and, by extension, greater competitive advantage.

Together, these three broad advances are helping to create BI solutions that allow information workers to make better-informed decisions that are more aligned with corporate objectives. Decision making and strategy formulation no longer rely solely on knowing “what happened.” Now, they can be supported by comprehensive intelligence about “what’s happening now,” and also, by extension, “what is likely to happen.” This capacity becomes even more important in the real-time world where the Internet and globalization are changing all the rules.

2.0 Simplicity and Relevance

Research shows that effective BI implementations depend on tight collaboration between the business unit and the IT department. As a general rule, BI implementations are more successful when business units become knowledgeable about available technologies and capabilities, and then communicate their needs to IT. Likewise, the IT organization should strive to understand the strategic objectives of business unit leaders and suggest ways in which BI could help them achieve their objectives. Today, new technologies and best practices are available that enable business and IT stakeholders to collaborate effectively, thereby advancing the firm's competitive advantage.

2.1 Simplicity

Yesteryear's BI implementations tended to force users to sift through large quantities of available data in search of relationships, links or hidden insights, and some of the tools were designed for technically sophisticated users (so called "power users")—which meant that average business users were at a disadvantage.

To be truly useful, BI tools must help all users detect patterns and changes in those patterns in the easiest, most intuitive and timely way. Virtually all recent research shows that the most useful business intelligence is derived from highly-visual and interactive tools.

Advances within the oil and gas industry provide a good analogy for understanding the direction of BI tools. In the past, major oil companies drilled a significant number of dry wells before hitting a gusher. Today, new technologies, such as seismography and remote sensing, are providing accurate data which is programmed into powerful three-dimensional visual software programs. The result is an accurate view of target drilling areas. In effect, these tools enable companies to drill in the right places earlier and more often. So much so that BP has not drilled a dry well for 15 years. Today's new generation of BI tools promises to provide businesses with similar accuracy and guidance—effectively helping them to "strike a gusher" more often within their respective industries.

The evolution of Internet tools also serves as a good example of BI's potential future direction. Early incarnations of Internet search tools created complex hierarchies of sub-directories or folders through which

users had to navigate to find information. While compared to a world without Internet search these tools provided real value, users often found them to be complex and counter-intuitive. The next generation of tools, such as Google, offered simpler interfaces that users found much more intuitive. Complex hierarchies were replaced by intelligent technology on the back end. This simplified the experience for the consumer and resulted in rapid and widespread adoption of the tools.

Several business intelligence vendors are now leveraging similar visual and interactive features that improve business insights by making it easier and more intuitive to work with data. These new technologies deliver an improved stakeholder experience at all levels of the organization, fostering widespread BI adoption and improved decision making. BI can now be delivered in a variety of views that can be personalized for the end user—providing everything from traditional reports, to interactive analysis tools, and event-driven Web widgets. By delivering the right information to users where and when they need it, the new BI reduces the learning curve and encourages everyone in the organization to use the available data.

One simple to use, next generation tool is Polestar, available from Business Objects, an SAP company. Whereas new reporting solutions once were only suitable for technically-savvy software developers, Polestar enables business users to explore data without prior knowledge of data structures or content. Polestar brings together the simplicity and speed of search capabilities with the trust and analytical power of BI tools giving immediate answers to business questions. Users employ familiar keyword searches to find information hidden in data sources, and then navigate and explore directly on data—no existing reports and metrics are necessary. By increasing self-service BI and maintaining IT control, this technology empowers business users to create their content, thereby reducing IT report creation backlog. It reuses existing security, metadata, and other services from BusinessObjects Enterprise, meaning it's easy to administer and quick to deploy, often in a matter of days, thereby abbreviating time to market and expediting decision making.

2.2 Relevance

In addition to the improved insight and effectiveness stemming from better tools, industry-savvy BI experts are creating templates to help bridge the gap between IT

professionals and the business units they serve—thereby making an important contribution to business performance. Whether they are internal experts, third party consultants or advisors on the software vendor’s team, these industry experts understand what it takes to be successful within the client environment, and are familiar with typical business requests, challenges and issues. Given their understanding of the technology, these experts can also significantly accelerate implementation by linking business requirements to the specific functionality of a BI application and existing content and templates. These templates include pre-defined data models, queries and metrics, while incorporating industry best practices into the implementation process. This not only saves time, it also helps the BI initiative deliver on business needs.

Business Objects customers that exploit the power of user focused tools can also access “industry blueprint” templates. These data models and templates solutions include a bundle of technology and industry knowledge that leverages SAP’s and Business Object’s substantial business knowledge, which was developed over many years while delivering advanced software solutions to the world’s largest companies. By leveraging these “packaged” industry best practices, customers increase the likelihood of a successful BI deployment. At the same time, they shorten development cycles and lower costs. These industry-specific solutions can act as a foundation that individual organizations can extend to meet their specific requirements. Specific components include: pre-defined “extractors,” large quantities of pre-defined data models, master data objects, authorization roles, query views and reports—all of which are delivered in the software.

The simplicity of business user oriented tools like Polestar and the enhanced relevance enabled by bundles such as business blueprint templates are enabling solutions for competitive advantage. The ease of use and enhanced relevance of these solutions build on the capabilities of existing BI systems thus increasing their value to the organization.

3.0 Agility

According to Moore’s law, a desktop in 2010 will run at 32 GHz, and have four gigabytes of memory and a one terabyte hard drive. This explosion of desktop, server and data centre performance is increasing the usefulness of BI by accelerating the delivery of analysis and reports.

Breakout Case Study: Warsteiner Brewery

The Warsteiner Brewery was founded in 1753 and is Germany’s largest, privately owned brewery. Their flagship brand WARSTEINER Premium Verum is one of the most popular beers in Germany. Apart from the Warsteiner Brewery, the Warsteiner Group owns numerous other national and international breweries and exports their products to more than 60 countries around the globe. However, even one of the most successful breweries in Europe is constantly confronted with profound changes. Factors like increasingly individual consumer behavior, alterations like the polarization of consumer groups, growing price competition and market consolidations also leave their mark on this industry. Against this background, customer retention and customer satisfaction are crucial.

Warsteiner Brewery had a vision: using business intelligence to implement a redundancy-free, consistent data basis across divisions, sources and systems to create flexible reporting for multiple requirements. The new system should also be able to automatically allocate data to the integrated analysis and reporting applications. All in all, the private brewery needed a single front-end solution. They found it in Business Objects.

The new solution is also Web-based. BusinessObjects Web Intelligence was chosen to offer a Web environment for querying and analyzing information. Users can access and analyze data when and wherever. Before the implementation of the new BI solution at Warsteiner Brewery, preparing for business calls and creating the necessary reports and analyses often took quite a lot of time. Now the sales reps can get all required information within a few minutes. The increase in productivity is another important benefit. As data is now distributed without requiring any coding the development effort has been cut down significantly. There is also no need to install any new clients as reports can be viewed via the Web using any popular browser. Since the local data sources of the field staff were made redundant, no more time is lost for tedious data replication. On the contrary, the sales representatives now have structured, timely access to all data warehouse content. While complex analysis was impossible in the past due to huge data volumes, data can now be analyzed easily without changing the hardware configuration. As up-to-date analytics can now be carried out everywhere at the touch of a button, Warsteiner has slashed preparation time for business calls. The overall reporting quality has improved considerably. Drill-down functionality and hyperlinking reports offer further benefits. Report complexity has been reduced as well. Warsteiner has written their own “scripts,” aka templates, to simplify the creation of analyses for the users. In addition, color coding enables fast data interpretation.

Traditional reporting solutions rely on painstakingly modeling end user requirements and then optimizing the system to meet those requirements. This method results in inflexibility and deteriorating system performance, where the business needs divert from the original IT design. But technologies such as in-memory business intelligence solutions help solve this problem. With more (and cheaper) memory now available, today's BI solutions can process reports on the fly by loading complete data sets into memory, thereby eliminating some of the old bottlenecks.

In-memory technologies provide two significant benefits. For the management team, instant response rates (less than a few seconds) on queries of millions of entries can provide a significant competitive advantage, especially for industries where a few seconds' difference in response time can mean the difference between profit and loss (such as in financial services). Even within less time-sensitive industries, access to real-time reports is beneficial; affording the user the flexibility to build complex queries and get immediate answers rather than having to proceed through various extraction steps to build the requisite report.

In the business intelligence world, most questions lead naturally to other questions. For example, it is important to know: "Which of my customers are most likely to switch to a competitor?" but even more important to know: "Do we care?" To answer the second question, it is essential to understand whether the customer's business has been profitable to the organization before embarking on answering the first question. Business intelligence solutions with rapid response times enable information workers to interact with their systems in an iterative manner to enable the right decisions at the right time.

Additionally, for the IT team, using in-memory technology reduces the need to design, build and maintain intermediary data sets. If the in-memory approach works with the complete original data, it creates a simplified architecture. This allows the IT organization to focus on providing more value-added services.

According to the Gartner Group, "By 2012, 70% of Global 1000 organizations will load detailed data into memory as the primary method to optimized BI application performance."⁴ This trend is a response to the continuing and accelerating pace of technological change and represents a wholesale change in how BI and performance management will occur in the future.

Breakout Case Study: Kimberly-Clark

Kimberly-Clark is a leading global health and hygiene company that employs more than 55,000 people worldwide and posted sales of \$16.7 billion in 2006. Headquartered in Dallas, Texas, and with operations in 37 countries, Kimberly-Clark's global brands are sold in more than 150 countries. Kimberly-Clark attributes its success to its practice of leveraging customers', shoppers' and users' insight to improve performance in existing brands and to develop entirely new products and categories.⁵

Kimberly-Clark's world-class global data warehouse and the associated enterprise business intelligence system is one way in which the company leverages customer insights. Knowledge workers make up a significant proportion of the Kimberly-Clark workforce at various levels of the organization, and over 4,100⁶ of them use the firm's BI systems regularly to leverage customer insight and drive competitive advantage.

The IT organization makes a regular practice of surveying its business clients to determine their highest priorities for improvements to the system. In the past, clients have most often said that system performance was their primary concern, with specific comments like: "How long does the system take to respond when I ask a question?"⁷ In response to this concern, Kimberly-Clark has recently upgraded its BI system with the SAP NetWeaver BI Accelerator. This solution utilizes a new approach to boosting BI performance based on in-memory 64 bit technology, column-based storage and advanced compression, and on Intel Xeon-powered off-the-shelf blade hardware. The accelerator's task is to achieve radical improvements in query performance without adding administrative overhead.⁸

The BI accelerator has yielded impressive results and this particular implementation has been identified as a "role model" for future IT projects. After a five-day proof-of-concept to confirm performance improvements, Kimberly-Clark deployed the BI accelerator system for production. Query times have gone up to 120 times faster and users are very happy. In fact, the performance improvements were so radical that before going live, Kimberly-Clark sent a message to users warning them not to distrust responses to queries that are now delivered in less than a minute but that used to require 15 minutes of processing. Beyond improved query performance, Kimberly-Clark has seen other indirect advantages, including a 60 per cent reduction in mainframe consumption (with the associated reduction in cost and postponement of upgrade expenditure) after the BI accelerator implementation.

Kimberly-Clark is justifiably happy with the deployment of the BI accelerator system and sees it as an important step on the road to driving business performance by exploiting the power of improved customer data. The company is confident that with ever-increasing quantities of data, and evolving technologies, such as RFID, many more opportunities await.

4.0 Integration

A significant piece of the business intelligence puzzle is related to how solutions are integrated into daily business operations and processes, and ultimately, how the data is gathered and structured. By extension, the success of this integration will be defined by how effectively it closes the loop with corporate strategy.

BI solutions are moving beyond the “end-of-line” analysis and reporting function represented by data warehouses disconnected from business processes. Specifically, the reporting mechanisms that historically reached the end user came at the final stage of a tedious “in series” approach to business intelligence. Data was processed, stored in the production system, and then extracted—at most, daily—into a data warehouse in a linear sequence. Only then was the information the end users needed ready for analysis and reporting. By the time they received it, the information was often out of date, which meant they couldn’t make wholly informed, coordinated and timely decisions.

The demand for BI solutions to be embedded within business processes and interact directly with operational systems is increasing. Businesses can then react quickly to important events and identify the cause and effect relationships that are key to long term success. Additionally, business intelligence solutions that are tied more closely to business processes can support strategy and utilize enabling technologies much more effectively.

5.0 The Payoff

It makes sense that organizations that choose simple, relevant and agile business intelligence solutions are more likely to sustain competitive advantage in a constantly changing world. Indeed, the forces of globalization— instant communications, free trade, outsourcing, and off-shoring—place a premium on the ability to analyze information and make rapid and informed decisions. Simple and relevant BI tools can empower employees to make effective decisions more quickly. By integrating real-time decision making with mission critical business processes, companies can ensure that they are serious contenders within the innovation-driven world of the 21st century.

Breakout Case Study: Rohm and Haas

Rohm and Haas is a global pioneer in the creation and development of innovative technologies and solutions for the specialty materials industry. The company’s technologies are found in a wide range of industries: building and construction, electronics and electronic devices, household goods and personal care, packaging and paper, transportation, pharmaceutical and medical, water, food and food related, and industrial process. Based in Philadelphia, PA, the company generated annual sales of approximately \$8.2 billion in 2006 and has over 16,500 employees.

The company prides itself on developing a deep understanding of its customers’ businesses and utilizing this knowledge to help deliver the right technology at the right time. Given the breadth and complexity of its product suite and the ever-changing market demands on its customers and itself, Rohm and Haas has no choice but to depend upon collaboration and information technology as enablers for success.

Over the course of the last eight years, the company has used information technology generally and business intelligence specifically to enable profitable growth in a difficult and increasingly competitive global environment. The organization has achieved this growth through both internal execution, and mergers and acquisition supported by an increasingly sophisticated “one company, one measure” attitude. All of this has occurred within a globalizing economy where the costs of inputs, such as raw materials and energy are difficult to predict and currency exchange rates fluctuate rapidly and vary in real-time.⁹ To Michael Masciandaro, business intelligence director of Rohm and Haas, the immense quantity of data that his organization uses to ultimately deliver wealth is not unlike another “refinement” business. “We have been mining that mountain of gold for business benefit.”

Rohm and Haas migrated from its previous system of disparate IT solutions to a single instance of SAP NetWeaver worldwide that now comprises approximately 90 per cent of its data. The system supports virtually all underlying business decision making and has given employees and management an unprecedented level of confidence in the data. Many decisions can now be made on the spot without scheduling a meeting or engaging in “dueling spreadsheets.”

Top management support and careful focus on strategy prior to implementation propelled Rohm and Haas’ successful implementation. The strategy analysis began with a complete re-invention of many processes and implementation of them company-wide. Once this process overhaul was complete, the company progressed from fragmented departmental- or subsidiary-driven initiatives to global ones, bolstered by a performance-driven organizational structure and consistent IT supported metrics.

Breakout Case Study: Rohm and Haas (cont'd)

Management defined an initial set of fifty key performance indicators, which the senior executive team narrowed to ten. Some metrics were generic, such as receivables, inventory, operating costs, cost center reporting and gross profit. Others were more industry-specific, such as product cost variance, conversion costs, raw material impact and selling price impact.

Finally, Rohm and Haas made a commitment to utilize its best people in the deployment. Along with senior executive support, this commitment sent a strong message to the organization about the strategic importance of the implementation. Today, more than 4,000 employees use the deployed BI capabilities. As in most companies, the user base is stratified by skill and function level and most people access data through dashboards and detailed reports. A small number of employees actually conduct in-depth analysis.

The results to date have been exceptional and the system is viewed as one of the supporting factors in the company's profitable growth: from \$3.5 billion to \$8 billion and in an increasingly competitive globalizing environment.

The future will see Rohm and Haas uniting its BI (structured data) with its Enterprise Content Management (unstructured data) initiatives for greater business advantage. The company will increasingly utilize its unstructured internal data (documents and email) and unstructured external data (competitive intelligence) to support its structured data efforts. Masciandaro remarks that although today's users are quite sophisticated in the use of structured tools (dashboards and reports), they tend to turn away from them and collaborate using another set of tools (email, instant messaging, voicemail and/or telephone), whenever a new opportunity or concern is identified. He expects that before long, the evolving wikinomics or Web 2.0 tools will be integrated with the BI systems that Rohm and Haas utilizes so effectively today and become the "tools of choice."

As well, the processes for collecting, processing and storing data have an immense impact on the quality and value of BI tools (the "garbage in, garbage out" maxim still applies). For this reason, information quality management practices that discipline how data is managed—from initial collection to final use—are critical to successful BI implementations. In the past, organizations used risky "big bang" approaches to address the problem of stranded information islands within the firm. This requires an application neutral, comprehensive approach for information management. Today, master data management (MDM) provides new tools, techniques and governance practices to enable businesses to capture, control, verify and disseminate data in a disciplined fashion. Combined with tools for data

quality management, this provides the trusted information foundation that companies base their analytics on.

Moreover, in today's global networked economy, many of the processes and data sources that will drive competitive advantage will not reside within the boundaries of a single firm. This implies that business and IT architects must design process-driven BI and information management solutions for an environment where business processes extend across multi-company business webs and global supply chains.

With industry expertise, process integration and information management, and the latest hardware technology, BI can finally deliver on its ultimate promise: the delivery of timely, accurate, and relevant information to support strategic decision making.

6.0 Looking Ahead

William Gibson could have been referring to the business intelligence world when he said, "The future is already here, it's just not evenly distributed."¹⁰ Moving from non-existent or legacy BI solutions to the next generation solution is a giant step forward and corporations will be compelled to execute these best practices or fall by the wayside. Moreover, BI solutions will continue to evolve as exciting new capabilities, such as in-memory, emerge and penetrate the market. The integration of BI and process will continue to move forward as standardized platforms from major software providers begin to integrate capabilities that at one time could only be purchased from "best of breed" vendors. Already, interesting work is underway that seeks to merge BI and search capabilities to enable decision making supported by a combination of the best available numeric and textual information. Also in the works are new and more intuitive 3D display technologies that are enabling three-dimensional interfaces that will move the "visual and interactive" context beyond what is available today. Smart companies will continue to monitor the situation: we are just beginning to understand how next generation BI will enable a truly sustainable competitive advantage.

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Don Tapscott, chairman and founder, New Paradigm

Don Tapscott, one of the world's leading authorities on business strategy, is the founder and chairman of international think tank New Paradigm. Established in 1993, New Paradigm produces ground-breaking research on the role of technology in innovation, competitiveness and society. The company was acquired by BSG Alliance in November of 2007, and is expanding its syndicated research programs globally. Currently four multi million dollar efforts—The Enterprise 2.0, Talent 2.0, Marketing 2.0 and Government 2.0—investigate strategies for winning through next generation enterprises.

Tapscott is the author of 11 widely read books about information technology in business and society, including *Paradigm Shift*, *The Digital Economy*, *Growing Up Digital* and *The Naked Corporation*. His most recent book, *Wikinomics: How Mass Collaboration Changes Everything* is an international best seller in 20 languages. It was a finalist for the prestigious *Financial Times*/Goldman Sachs Best Business Book award and has been chosen by many publications including *The Economist* as one of the best books of the year. He is also adjunct professor of management at the Joseph L. Rotman School of Management, University of Toronto. His clients include top executives of many of the world's largest corporations, and government leaders from many countries. He holds a master's degree in Research Methodology and two Doctor of Laws (Hon).

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Endnotes

¹ http://en.wikipedia.org/wiki/Howard_Gardner.

² Thomas Davenport and Jeanne Harris, *Competing On Analytics: The Science of Winning*, (USA: Harvard Business School, 2007).

³ Gartner Group, survey of 1,400 CIOs, February 2007.

⁴ Gartner Group, 2007.

⁵ Kimberly-Clark Web site, July 2007.

⁶ Per presentation from Atlanta Sapphire, it's 4,175 BI users.

⁷ New Paradigm interview with Phil Nikolai of Kimberly-Clark, June 15, 2007.

⁸ SAP Web site, July 2007.

⁹ Interview with Michael Masciandaro, BI director of Rohm and Haas, conducted by Paul Barter and Pierre-Luc Bisailon, New Paradigm October 25, 2007.

¹⁰ http://en.wikipedia.org/wiki/William_Gibson.

Enabling Better Business Intelligence More strategic IT through the intelligent use of information



Today's competitive environment is fast and fierce, marked by complex supply networks and increased consumer power. In order to succeed, companies need to fully leverage the power of information to their advantage. No longer is it enough to leave information access to a select few; every business person needs to be empowered to access, analyze and act on trusted information, wherever and whenever needed, and in the context of the relevant business activities.

That is why leading companies worldwide rely on solutions from Business Objects and SAP to provide end-to-end solutions for better business intelligence (BI). The business user is in the focal point, with an intuitive and system-agnostic solution set that delivers on even the most demanding needs. Embedded into the context of business activities and work environments, information is immediately relevant and actionable. At the same time, IT can focus on being an enabler of innovation, rather than just working overtime to just "keep the lights" on.

With solutions from Business Objects and SAP, companies get:

- **More effective business decision making.** Simple and intuitive user interfaces foster broad adoption, while reducing IT backlog. Business users quickly access any type of information, regardless of its source. And with BI accelerator technology, response times are consistently fast, independent of data volumes analyzed or question asked, allowing IT to meet the increasing demand for real-time BI embedded into business operations.
- **More efficient IT, freeing up resources for innovation.** The broadest solution set in the industry, combined with best-in-class capabilities, dramatically reduces the need to deal with multiple vendors. Due to inter-operability with any systems, applications or databases, investments are protected and don't require expensive custom-integration. And by providing the right level of controls with an agile infrastructure, IT can focus on managing service levels, and does not need to manage individual users.
- **Faster realization of value from IT investments.** Out-of-the box content and templates, across both SAP and non-SAP data sources fosters accelerated deployments of BI solutions while significantly increasing the chance to "get it right" from the beginning, as compared to pure custom-built approaches. And alternative delivery models (e.g. on-demand, appliances) provide drastically reduced setup time and lower maintenance.

The result is that IT is better able to meet the information needs of business users thus becoming a strategic partner to the business.

To learn more about how solutions from SAP and Business Objects can help you empower your employees to make the best-informed business decisions, visit www.sap.com/businessobjects.

SAP and Intel not only understand the challenges businesses face in today's volatile global marketplace, but since 1994 they have worked together to offer a powerful set of optimized solutions on innovative platforms that help companies quickly adapt their strategies and execution. Today, more than 74 per cent of all new SAP installations are deployed on proven Intel platforms, enabling IT to become more efficient and responsive with breakthrough performance, energy efficiency, and reliability needed for virtualization and business-critical applications.

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