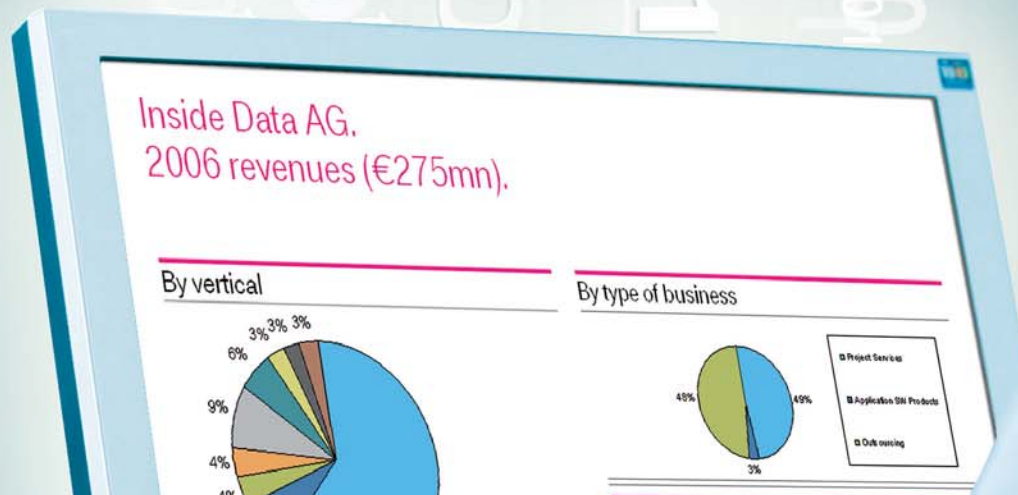


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# White Paper Business Intelligence.

Optimized decisions quickly  
and transparently.

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# 1. Introduction.

Ever shorter market cycles, faster changing customer requirements and growing cost and competitive pressures continuously intensify the demands placed on companies. Fast, effective and sound strategic decisions are needed to achieve long-term competitiveness. Comprehensive and up-to-date, but above all precisely tailored, information helps not only to better understand one's own business and the underlying contexts, it also creates a solid basis for decision-making. In this context, Business Intelligence has laid the foundations in recent years, allowing decision-making that is increasingly well-founded. However, explosively burgeoning data quantities and ever faster decision-making cycles require even better, more comprehensive, sophisticated and up-to-date reporting avenues.



**“The decisive factor for a manager is to filter from a huge glut of data the current, correct and above all relevant information, thus enabling him to make sound decisions.”**

In the early days of electronic data processing, pure data management was the focus. It did not, however, take long to see that the data gathered could, when structured and compressed, provide valuable information on the most varied of questions. The growing support of corporate business processes by IT, the global use of Internet technology and the new methods and techniques for gathering and processing data have virtually revolutionized the opportunities for management support. Nowadays we can use the Business Intelligence (BI) approach derived from this to transform collected company and competitor data quickly and transparently into decision-relevant knowledge. Very specific questions, such as “What is the best-selling product in a certain region?”, can be answered in a matter of seconds and there are no longer any time lags between creating reports and their presentation. The data arrives on the manager's desk in real-time, i.e. the minute it is created.

However, there is no plug & play version of the perfect BI application. Given the high complexity of the data structures and the multiple relationships as well as the constantly developing requirements, the introduction of a BI application must not only be well planned it must be very prudently implemented. This white paper deals with the pitfalls facing a company when planning, introducing and using BI solutions and offers a brief look into the future of analyzing and preparing company information.

## 2. Sourcing information from company data: from data to knowledge.

### 2.1 Problems of an information glut – BI as the new solution?

The growth in data quantities which has been exponential in recent years is posing great challenges for many companies. From 2000 to 2002, for example, more data was generated than in all of human history before that. In the period from 2003 to 2005 this data quantity quadrupled again. Naturally, the resultant glut of information brings challenges as well as just advantages for companies. While they have – in contrast to times past – a great deal of information at their fingertips, it is becoming increasingly difficult to sift out the information that is truly relevant to them.

This is where Business Intelligence solutions come in. From an enormous quantity of data, these solutions find the data that is actually relevant, organize and analyze it and then present it for review in the desired format. Business Intelligence is generally understood here as a process that converts data into information. The objective is to provide real-time, transparent, reliable and high quality data to offer the decision-makers within a company a valid base of information. This is done with the aid of analytical concepts and IT systems, which evaluate the data about the company itself, the employees or the market development. With the findings gained, companies can derive the action that is required to optimize their customer and supplier relationships, lower costs or minimize risks and thus improve their added value on a permanent basis.

The data to be evaluated here is based on the existing business processes in a company. Hence the data that optimally supports the fulfillment of the relevant individual tasks is always provided, tailored to the user – whether a manager or employee.



**“More and more companies have come to realize that data and information quality is a value-added factor they have thus far largely neglected.”**

Historically speaking, BI applications represent a further development of Management Information Systems (MIS), Decision Support Systems (DSS), Executive Information Systems (EIS) and Data Warehouse (DW). If the first information systems were designed for pure administration of data, then the data warehouses were already designed for real-time provision of information to a variety of decision-makers and employees in different departments (Figure 1).

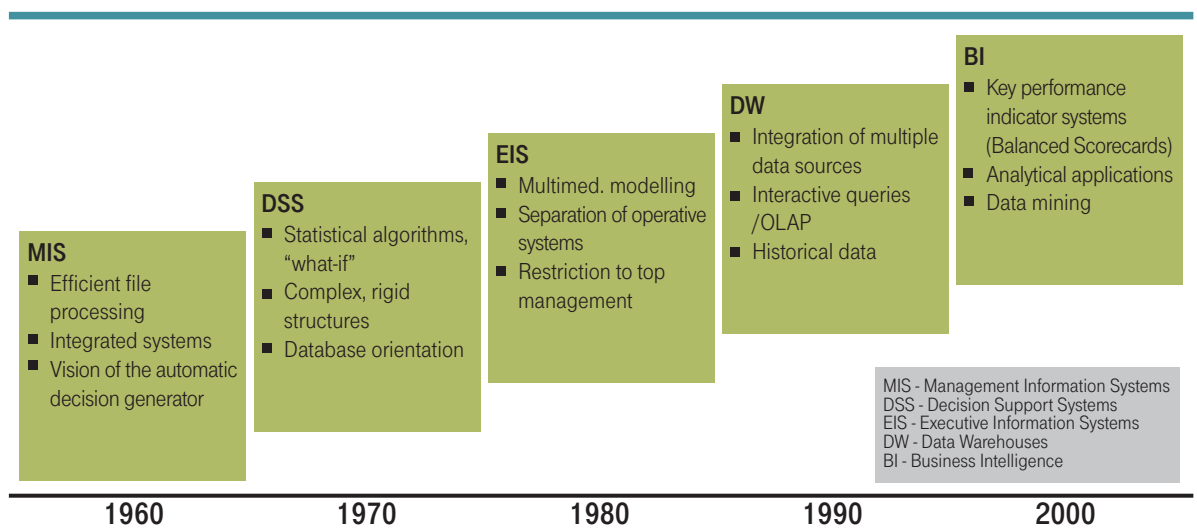


Figure 1: Historic development towards Business Intelligence.

By focusing on the information that is relevant for decision-making, Business Intelligence shall provide methods and tools which will enable company and competitor data to be transformed into decision-relevant knowledge. This yields not only a comprehensible and targeted representation of this information (consistent, comparable and cross-area), but naturally also promises a wealth of further advantages:

- Shorter access time to relevant information thanks to real-time data for a faster response to the market
- Minimization of the risk of a bad decision, through established, detailed and targeted market information
- Ongoing evaluation of the delivery terms and conditions with resultant optimization options
- A comprehensive customer understanding through cross-selling or preference analyses to maximize the customer lifetime values
- Detailed overview of the individual cash flows in a company and thus naturally also the identification of cost saving potential

In addition to the competitive advantages that can be generated, BI applications also cater to the increasing regulatory requirements (e.g. Basel II, KonTraG, Sarbanes-Oxley Act) and international accounting standards (in particular IFRS and US-GAAP). These force companies to develop cleaner data scenarios, allowing them to shape the information flows transparently even with complex processes.

## **2.2 BI in practice – a simplified example.**

To demonstrate the BI approach, a simple real-world example of an industrial bakery, i.e. a medium-sized branch, is very effective. You are responsible for a chain of bakeries with locations in five different German states and now intend to open a new branch in North Rhine Westphalia. First you must find a suitable location. To this end you will analyze, for example, in what region the ratio of turnover to labor and operating costs is particularly cost-effective or where the competitive situation might be advantageous for you. Germany boasts the most bread varieties (approx. 1,200) in the world, so you are very interested in discovering the bread varieties primarily demanded in the region. Of course, further, very different and more in-depth analyses are also interesting. These may include the following, e.g.:

- **Product and range (success) analysis:**  
How has the sale of individual products (e.g. poppy seed rolls) developed over a defined period in the region in focus?
- **Turnover analysis:**  
What was turnover development like for the other branches initially? What setbacks must be planned for? What level of turnover can be realistically expected in the first 12 months?
- **Branch success analysis:**  
What products are offered in the branches, which achieved the largest turnover in one month in the region? How large is the branch and how many people work there?

With the aid of a BI tool, these and many other specific questions can easily be answered from a structured database. To this end, the data is first imported from various data sources and stored in a multi-dimensional information cube, and if required collated anew into smaller data cubes that are optimized from a user viewpoint (so-called “data marts”). The axes of a data cube are used to categorize the different facets of the information obtained. The content of such a data cube can include quantities sold, quantities produced and turnover, but also regions, branches, sellers etc. Thus, depending on the focus of the user (product, turnover, sales), the relevant data is extracted from the data cube and presented in a specially generated view (see Figure 2).

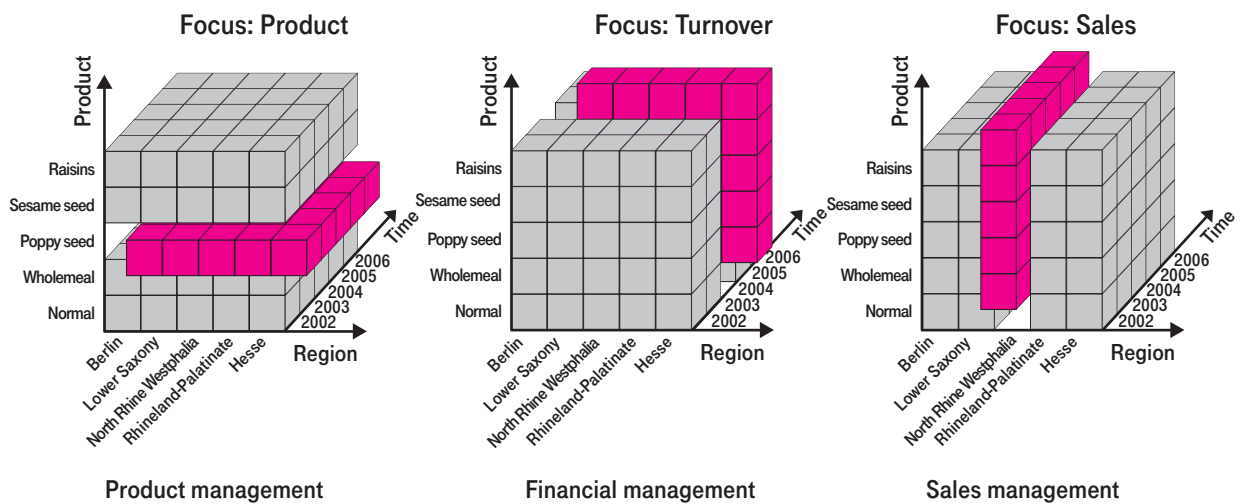


Figure 2: Multidimensional view: Information from data; Source: Orbit.

From a structured database, a BI tool can be used to extract all the relevant information quickly and easily and to display this information clearly. Thus, it is possible to use the data stocks of a company more effectively as a production factor using this data cube.

### 2.3 Evaluation of the German BI market.

The advantages of a BI solution are obvious. Nonetheless, the Business Intelligence approach spans a multitude of different tools and concepts. Correspondingly, there are numerous suppliers, who all promise a timely and cost-effective launch of BI solutions. The market for Business Intelligence software and services is thus currently very unclear. Although all suppliers market using the label “Business Intelligence”, ultimately the individual products all too frequently address entirely different commercial tasks and target groups. This section therefore deals with the “status quo” on the German BI market and provides a brief outlook at the direction in which this market will move in the coming years.

At the moment the BI market is in a strong consolidation phase and in 2007 it was particularly defined by large takeovers. Three acquisitions have influenced the market, in particular, in this year: the takeovers of Hyperion by Oracle, of Cognos by IBM and not the least of Business Objects by SAP. The aim of the established software companies is to position themselves well in a future growth market through acquisitions. As a consequence of this development, BI has become an integral component of future-oriented ERP solutions.

According to estimates of the Experton Group, the BI market in Germany in 2007 was set to reach the dimensions of a mass market of approx. € 1.5 billion. In 2007, more and more medium-sized businesses invested in the area of Business Intelligence. In total, this was split approximately 47% on software and 53% on services, whereby “the ratio of software to services was clearly tipped towards software amongst the SMEs. For large companies, the services share is significantly higher due to the great integration complexity and the required adjustment to specific business processes” explains Frank Schmeiler, Research Director of the Experton Group.

In the coming years, the BI market will continue to show above-average annual growth approximating 20% and will increase by 2010 to represent a market value of more than € 2.5 billion. And as BI projects are becoming ever more complex and comprehensive, the services market will grow in step with the BI software market. The rather optimistic growth forecast of 20% can largely be traced back to the required investment from medium-sized companies,

which are being forced to invest more heavily in better Business Intelligence applications, not the least because of the more stringent compliance requirements. Investments in BI solutions are thus not the sole domain of large companies; indeed the medium-sized companies hold enormous growth potential and it is these that will rightly be targeted by all BI suppliers in the intervening period. The need becomes crystal clear when one thinks that previously only one in four companies used BI software. New legal requirements must be fulfilled and outdated BI software replaced. Furthermore, the increased functionality and interoperability of the new BI tools must be represented in the processes. For medium-sized companies, software-as-a-service packages or hosted solutions for Business Intelligence offer a cost-effective alternative to purchasing software, allowing them to satisfy the heightened requirements governing reporting and evaluations of business administration. The Experton Group estimates the total volume of the SaaS market in Germany 2007 at approx. € 270 million (expected to reach € 577 million by 2010).

In addition to the suppliers of comprehensive BI suites (such as e.g. SAS, Cognos/Applix, Microstrategy etc.) and the database and ERP suppliers (SAP/Business Objects, Oracle/Hyperion, Microsoft, IBM/Cognos etc.), the market for Business Intelligence is host to a plethora of specialized suppliers with individual BI tools or BI functions (data mining, analysis, data integration, data quality management, OLAP, reporting or meta data management). Furthermore, increasing numbers of open source solution providers are entering the BI market, including such names as Pentaho, Weka, Rapid Miner, Polo, BIRT etc.

At the moment BI tools are predominantly used in companies in the areas of controlling, accounting and corporate management (reporting, data analysis, planning/budgeting), however they are making strong inroads into further specialist areas including marketing and sales. The future challenge facing all sectors, but particularly the production-intensive ones (manufacturing, automotive and chemicals industries) is to dovetail the data obtained from administration and production in a more structured manner. Therefore suppliers will see increased demand for solutions which are more sector-specific, as customers attempt to implement Business Intelligence projects customer-specifically.



**“In the future, BI software should be capable of interaction with Office applications and search engines, enabling key performance indicator cockpits and allowing better integration in operative systems and corporate processes.”**

Recent studies also reveal that the introduction of a certain BI product is no longer any guarantee of success, i.e. that the specific goals being pursued (boosted turnover, stronger competitive position, increased employee satisfaction) will actually be achieved (Source: Orbit). Thus both the selection process for the right software and that for the right service provider become the primary challenges in the implementation of BI projects.

# 3. Possible pitfalls of implementing BI-projects.

BI projects are not simple IT projects. BI solutions must be closely dovetailed with the business processes within the company. It is no wonder then that difficulties in the implementation of a BI project are not exclusively due to the complex technology or an opaque procedural model in the realization (Sect. 3.4), but that often the fault lies with the fact that there has been insufficient alignment with business processes (Sect. 3.3). Moreover, many companies fail to create sufficient acceptance for the planned measures by means of targeted communication activities amongst the employees (Sect. 3.2). In the end, a BI project can also fail because of a very basic issue. For example, the BI project is often insufficiently incorporated into the overall context of the corporate strategy (Sect. 3.1). The challenges facing a company during the planning and implementation of a BI project and the specific pitfalls to be watched out for are dealt with in this section.

## 3.1 Lack of direction in the corporate strategy and lack of a BI vision.

Many BI projects fail despite having defined goals and using good BI tools. One frequent reason for this is short-term, actionistic behavior. Most companies are not pursuing a company-wide BI strategy in their planning and introduction. Rather BI projects are all too often initiated in the specialist areas and driven “from the bottom up”. Such frequently department-related and uncoordinated BI projects generally lead to disparate island solutions. As a consequence, the users are faced with a mish-mash of isolated BI warehouses, data mining tools and software dashboards, through which they end up trawling once again for the information they need. The formulation and implementation of an integrated BI strategy, i.e. one that is coordinated to the corporate strategy, is therefore indispensable.



**“Bring about a common view of the organization and data that is shared by all involved and ensure the support of business management by pointing out the corporate goals that are supported by BI.”**

BI projects often have little in common with traditional IT projects structured according to the waterfall model, instead it is typical that many details and requirements do not arise until the project is running. Therefore, start with the motto “Think Big, Start Small!”. Think Big stands for the formulation of a BI vision and encompasses the analysis of the entire BI potential of the firm itself as well as the coordination of requirements with partners, customers and suppliers. For a BI strategy, the path and the fundamental goals must be clearly defined, and this without spending months on end working on the description of comprehensive data models and BI requirements, which become obsolete anyway because of new requirements or findings in the course of the project. This is why it is important at the start of a BI project to concentrate on small but essential tasks (“Start Small”), in order to be able to realize visible successes as quickly as possible (Quick Wins). With this step-by-step approach, the user learns, from the very outset of the project, a great deal about his customer or production data, particularly in relation to its quality, and can incorporate this knowledge into the next project steps. The solution is extended iteratively in this way and in time takes shape.

## 3.2 Lack of BI acceptance within the company due to insufficient communication and transparency.

Contradictory expectations, political reasons, disputes about data sovereignty and budgets often prevent the creation of a comprehensive BI solution. In addition the introduction of new methods and tools can have a significant influence on the organization and work processes, which are not always welcomed enthusiastically by all employees. The most frequent objections to the introduction of BI applications are that they are difficult to use, have poor response times and would be demotivating for users. Consequently a BI project can only achieve its goals if the necessary changes are accepted by the employees.



**“According to a survey, 30% of German salespeople see BI analyses as an unwanted means of performance control.”**

Accordingly, it is essential that one's behavior when introducing and implementing BI projects should be transparent to the employees and be inherently consistent. This is best supported by the early and targeted inclusion of “key people” and by defining a BI program that is freely accessible to all employees and easily understood by them.

Having some of the key people lead by example in terms of using BI is a promising introduction strategy, particularly in medium-sized businesses. These key people use the BI system in the firm and thus convince the rest of the employees by, for example, using the data delivered by the BI system in a very targeted fashion to query successes and failures of projects, processes, etc. In this way, they demonstrate the opportunities and the benefits of the key performance indicators generated by the BI system.

It is important that there must be a clear vision (“Think Big”) behind such a project, which should, above all, preclude short-term actionism. Our project experiences show that those companies that have a strong link between the various operator and user units are precisely those who enjoy most success in their BI activities. The key people should therefore cooperate actively on projects from the BI program and involve themselves to a great degree. Moreover it has proved very practical to nominate a concrete process and/or BI coordinator for the performance of complex and comprehensive projects; the role of these persons would also involve assisting in defining the required communications and/or information processes. You should therefore initiate an ongoing dialog between the BI team and the specialist departments, not the least to ensure that the mutual expectations in the project remain realistic and are continuously coordinated. It is also important to ensure a clear commitment on the part of business management with respect to the implementation of the BI program and the associated provision of required resources.



**“The employees must feel that this is about providing them with more task-related information than was previously the case so that they can respond more easily, more flexibly and faster to indirect processes.”**

If possible, it is also practical to incorporate an additional, external partner, who has experience in both the BI environment and also in Change Management. This is because a long-term, committed BI program must go hand in hand with careful and sensitive change management. This facilitates the required organizational changes and helps the affected employees to join in. Inform the employees regularly about the current status of the project, to counteract well in advance any doubts they may have and prevent any negative communication. Early training measures for the users will increase acceptance and thus boost efficiency and the benefits of the new BI solution.

### **3.3 Insufficient alignment of the BI solution to the business processes.**

Once the BI strategy is formulated and all those involved/affected have been at least won over to the idea, you will come up against a further obstacle in the path to a successful BI solution: the alignment and incorporation of the BI solution to and in the business processes.

In order to remain competitive, companies must monitor countless mutually independent activities across all business processes, analyze individual results and make decisions on the basis of this information. Often however the data quantity is not at all manageable and is isolated in ERP, CRM, personnel planning and production systems. The new BI infrastructure must thus be able to permit access to cross-company, consolidated data from all these downstream systems.

To this end it is indispensable that the previously defined information processes are precisely mapped and that they interact closely with the data management and security systems. The aim must be to automate the data collection, storage and evaluation processes to as great an extent as possible. The smaller the manual influence on this process is, the less the likelihood of errors and the greater the cost optimization.

A deep understanding of the business processes and, in particular, the underlying data sources is thus critical! However, in the implementation of BI projects, it is frequently the technology that is at the forefront. With the assumption that the users already recognize the added value, many IT departments design BI projects with a strong focus on improving individual applications but with too little attention on the optimization, adjustment and correct analysis of the business processes.

Although control of the technological facilities is without doubt a significant prerequisite for a successful implementation of a BI project, it is important not to lose sight of the processes and sector-specific peculiarities. Thus one should focus less on the data itself and more on its use, i.e. the business processes that are to benefit from it – such as sales, procurement, financial services or HR.

Valuable information also depends on partners, suppliers and customers, which means that they must be incorporated into the implementation of the BI projects. Having many people involved and numerous data islands inevitably leads to a high level of complexity. Correctly representing these complex information structures and business processes in the BI tools is without doubt the greatest technical challenge facing companies.

### **3.4 Complex technology & opaque procedural model.**

A fundamental understanding of the sector and processes is elementary for BI projects, but their successful implementation is also strongly influenced by technology and a well-defined procedural model. Numerous technical challenges must be overcome – challenges where poor planning and implementation can quickly bring any BI project to its knees.

Requirements of a BI project from a predominantly technological viewpoint:

- Creation of transparency despite the great complexity of the processes and the different technologies
- High scalability and quick adjustability of the solution
- Managing the flood of data and creation of transparency
- Clarification of the data sovereignty to ensure consistency
- Generation of a high data quality
- Safe handling of sensitive data
- Technical evaluation of the BI solutions

A lack of transparency quickly leads to errors, high costs and increased rejection. This applies both for the BI project and for the day-to-day work with the new BI tool. To avoid this, particular emphasis should be placed on the architecture of the BI solution and on the optimization of any existing BI infrastructure. The BI infrastructure should be able to represent the defined information processes completely, making a detailed analysis of the specific requirements of the perfect BI infrastructure indispensable. In this it is important to note that frequently these cannot be transferred from pre-existing IT requirements due to the high process orientation. The highly complex nature of the processes and the multitude of applications lead again and again to an intermingling of logic and technology here.

A good means of combating the complexity – in keeping with the Start Small scenario – is to develop a modular approach. This can contribute towards reducing the complexity and thus creating more transparency. Now more than ever, IT organizations must consistently introduce new solutions that are in harmony with the commercial

requirements. This requires that IT coordinators react flexibly and quickly build up new IT processes that are in synch with the business requirements. Service-oriented architectures (SOA) make a valuable contribution here.



**“Service-oriented architectures increase the required adjustability of a BI solution and strengthen the separation between technology and logic, through the use of clearly defined services for representing individual business processes.”**

SOA is more than just a technology, rather it is a concept that structures the IT of a company according to services, which are modular and can be combined flexibly to implement IT processes. The IT-specific components of the concept are realized with an IT architecture, which is based on loosely coupled services which are mutually independent from a technical viewpoint and the interoperability of which is based on open standards, thus enabling a clear separation between logic and technology. The standardized and modular structure of SOA can be directly incorporated into tailored solution portfolios and offers many advantages:

- Efficiency and short time-to-market thanks to a standardized and simple development of new services and processes.
- Reusability of IT assets and costs savings through the use of common resources.
- Transparency of the IT architecture through clearly defined services.
- Increased flexibility through standardized interfaces and the loose coupling of services.

Data quality encompasses the importance, relevance and correctness of information. Insufficient quality or the lack of required starting data as well as a possible paucity of data structure can all impair the kick-off phase of a BI project. In ongoing operation, poorly maintained data is a frequent problem. In addition to the enforcement of data maintenance standards (clear policies), data quality should also be improved through automatic quality checks and the implementation of a data quality assurance process. This is where Master Data Management (MDM) comes into play. A good MDM system that is planned early on produces clearly defined master data and is thus the basis for high data quality. In addition, by stipulating clear policies it must be possible to clearly regulate who must provide what data and the quality and format of such data (data governance). Data governance is becoming more and more important, particularly given the ever increasing data quantities, and forms the basis for defining clear responsibilities. Accordingly a specific area/specific department must be uniquely responsible for clearly defined business processes and the resultant data. Only such a regulation will guarantee consistency in the data. A continuous integration and consolidation of data sources serves not only to create a company-wide view but also improves data quality, as the different data sources often only hold the individual values in very different formats. The simplest example is the date format (e.g 25 Feb. 74, 25.02.1974 etc.). In addition, the data structure of operative systems differs widely from the structure of the multidimensional data cubes presented above.



**“Missing or faulty data reduces the benefits of BI solutions, promotes incorrect decisions and makes it more difficult to adhere to legal framework conditions.”**

A further important aspect of MDM is the issue of data security. A lack of security will lead not only to rejection by the majority of users, but also makes unauthorized access to valuable data much easier. This can jeopardize the competitiveness of individual departments and even the entire company. For this reason, data security must be a significant issue in the definition of a BI program. The central elements of a high security standard are contained in the definition of clear data security strategies as well as the consideration of the most modern security tools during implementation. Through a continuous further development of the security processes introduced, the achievement of hopefully high security standards is guaranteed.

MDM plays a vital role in achieving a high level of transparency in the implementation of BI projects, despite the complexity of the technology. The success of BI is predicated on the consistent definition and implementation of rules to ensure data quality and security that includes a clear description of responsibilities. The implementation of MDM policies also requires a detailed procedural model, in order to set up the planned BI solutions and the relevant business processes in accordance with the specific customer challenges.

## 4. Conclusion & outlook.



**“This is merely the dawn of the information age. When one thinks that information technology is only a very young science, and when one considers the explosion in the volume of data that we have witnessed in recent years, it is easy to see that the importance of information will continue to grow in this fast-paced environment.”**

At the heart of Business Intelligence is the wish to identify as quickly as possible and to better understand the cause-and-effect relationships and mechanisms that are of relevance to one's own business by analyzing existing data. Business-relevant information must therefore be made available in real time and in a comprehensible format; this data must be of a high quality and be up-to-date. On the one hand, users should be able to easily access the information, while on the other the data must be protected against unauthorized access. If it is implemented consistently, a Business Intelligence system that is integrated into the operative, tactical and strategic business can make a huge contribution to the success of the company.

The desire for more findings that are available faster and are above all relevant is pitted against the increasing flood of data and the ever more complex data analyses this entails. This is a continuous development, which is strengthened not the least by the merger of IT and TK. New, innovative ICT solutions and concepts such as Medical Card, Location Based Services, Homeland Security, etc. are generating data quantities in the petabyte range, and in this environment it is not only the number of structured information units that is rising but also the quantity of unstructured and semi-structured information. This includes e.g. documents, emails, tables etc., which are saved in a disparate fashion, but in which the information is not clearly structured.

According to an Ovum study, approx. 80-85% of a company's information, i.e. by far the greatest share of knowledge, is poorly structured or entirely unstructured even today. Consequently it is necessary not only to link the different concepts and systems more closely together but above all to gain control over the integration and analysis of structured and unstructured data stocks. This is because the anticipated explosion of the Internet through Web 2.0 and Web 3.0 is of late leading to a further exponential rise in unstructured and semi-structured information, which will bring with it a new, even larger and nearly overwhelming flood of information.

In the future, BI concepts must merge with Information Management concepts, the approach of which is to efficiently enable both access to and analysis of structured and unstructured information. It is critical for the acceptance of future solutions that data is made available in real time, that it is specific to the users and above all that it is clear. The users should not, however, come into contact with the complexity of the data sources and structures underlying such solutions – to avoid, inter alia, excessive demand.



**“The decisive factor for future business success will be the ability to identify as quickly as possible from amongst the gargantuan mass of data the correct and important information, irrespective of its data structure.”**

Only companies that succeed in identifying, analyzing and preparing appropriately the critical data as quickly as possible and which can thus identify the changes and trends at an early stage, allowing them to react as quickly as possible, will be able to compete at the highest levels in the long term. Consequently, innovative strategies, concepts and technologies from Information Management, which allow the right information to be obtained reliably and independent of location, data source and format in real time, and thus form the basis to be able to make fast and intelligent decisions, are important.

## 5. Glossary.

Balanced Scorecard	Performance measurement technique, which allows corporate management to measure the various internal functions and its results against the outside world. Organizations use this to achieve strategic goals which are often divided into four fields (finances, processes, customers/market, personnel).
Basel II	Basel II is the title used to cover all the equity capital regulations proposed by the Basel Committee on Banking Supervision in recent years. Since January 1, 2007 these must be applied to all credit and financial services institutions in the member states of the European Union.
Business Intelligence	Business Intelligence describes a collection of methods, which can be used to gain valuable information from structured data.
Change Management	Change Management covers all tasks, measures and activities, the aim of which is to bring about a comprehensive, cross-group and far-reaching change – to implement new strategies, structures, etc. – within an organization.
CRM	Customer Relationship Management (CRM) describes procedures and techniques with which the relationship between customers and suppliers can be represented.
Cross-Selling	Cross-Selling is the term used in marketing to designate the sale of supplementary products and services.
Customer Lifetime Value	Customer Lifetime Value (CLV) is, generally speaking, the current value of the likely future income stream generated by a customer over his entire “customer life”.
Dashboard	Dashboard designates a visualization form for information in compressed format.
Data Mart	In contrast to a data warehouse, a data mart is not a company-wide database. Data marts are restricted to parts of companies, e.g. departments, groups, product divisions and are therefore a good means of implementing BI solutions in a short space of time, in accordance with a modular Start Small approach.
Data Mining	Data mining is a special form of data analysis which reveals hidden trends. In addition, analysis tools are used to discover invisible patterns and to validate known factors.
Data consistency	Data consistency for databases is, generally speaking, the lack of contradictions in data.
Data Warehouse (DW)	A data warehouse is a database, isolated from the operational DP system, which serves as a company-wide database for all system versions to support management. A data warehouse is, among other things, the basis (enabling technology) for CRM, Data Mining, E-Business etc.

ERP	The term Enterprise Resource Planning describes the corporate task of deploying the resources (capital, equipment or personnel) available in a company efficiently for the purpose of the operational processes.
Governance	Governance is, in general terms, the control and regulation system for the structures (setup and process organization) of a company, organization or also an operation.
IFRS	The International Financial Reporting Standards (IFRS) are international accounting regulations.
IT Governance	IT governance comprises management, organizational structures and processes that ensure that the IT supports the corporate strategy and goals.
IT Outsourcing	Transfer of full responsibility for IT functions with a high IT share to legally independent – i.e. external – service providers for a defined period.
KonTraG	The Gesetz zur Kontrolle und Transparenz im Unternehmensbereich (law providing for control and transparency in the Group), KonTraG for short, is a comprehensive Artikelgesetz, a composite act covering the amendment and enactment of the related legislation, the aim of which is to improve corporate governance in German companies.
OLAP	Online Analytical Processing (OLAP) is the analysis and evaluation of multidimensional data, to gain information for company decisions.
SaaS	Software as a Service (SaaS) is software the use of which is granted to a customer as an ongoing service for a usage fee (“rent”) that must be paid periodically.
Sarbanes-Oxley Act	The Sarbanes-Oxley Act (SOX) is a US capital market law enacted in 2002, according to which all companies listed on US stock exchanges must have their internal control systems overseen, documented and tested by auditors.
SOA	Service Oriented Architecture (SOA) is a management concept and requires a system architecture concept as a secondary concern only. This concept aspires to an infrastructure which is aligned to the desired business processes and which can react quickly to changed requirements in the business environment. The system architecture concept provides for the provision of technical services and functionalities in the form of services that represent nuclear process steps.
US-GAAP	US-GAAP is the abbreviation for the United States Generally Accepted Accounting Principles. It refers to the US accounting regulations that govern the accounting practices and annual financial statements of companies.

Source: According to the studies, articles, et al documented in the bibliography.

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