

# White Paper: The Business Intelligence – Why should I care?

## Overview

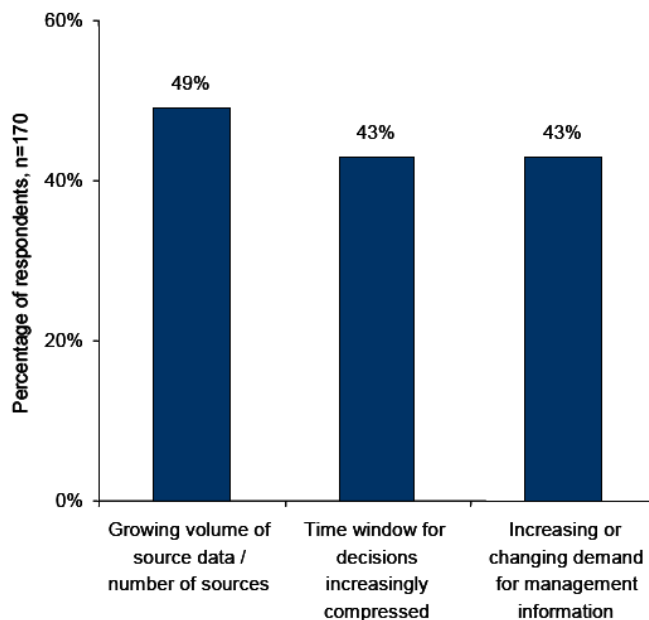
Business Intelligence (BI) is one of the most over-used terms today. The definition of BI is simple: bring together data from various sources to solve business problems. Not only is BI a group of processes, practices, applications and technologies, but it is this group that over time, is a *journey* rather than a *destination*. Similarly to ERP of recent times, BI projects have gained a reputation of being costly, prolonged and falling short in delivery<sup>1</sup>

We advocate a ‘back to basics’ approach for BI:

- Ensure prerequisites around BI to give it the best chance of success
- Understand what you need from BI, in what timeframe
- Start small before scaling to the enterprise level

## Effective BI cannot be ignored - The Business Drivers

BI is more than a piece of software or a single database. It has evolved from a very basic need to solve real world business problems, and is a combination of processes and tools specific to the individual culture of an organization. Unlike many past business drivers, the need for BI is being driven by pressures generally considered to be increasing and incessant: “the new normal”.



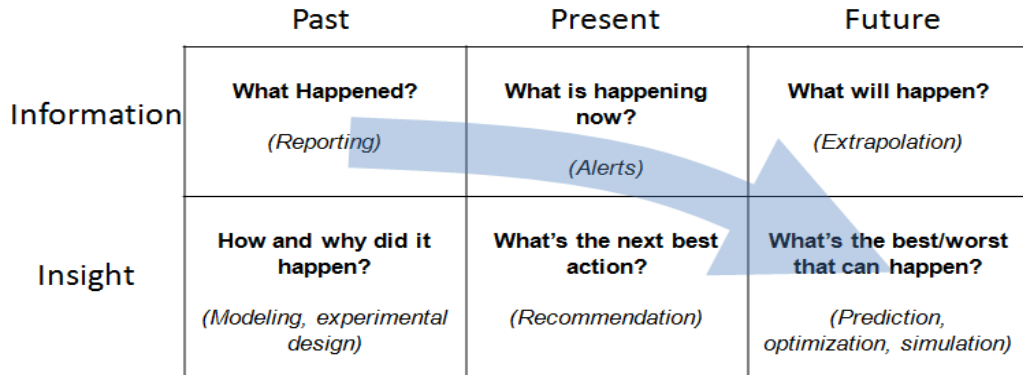
Source: Aberdeen Group, March 2011

\* Survey respondents were asked to choose two top pressures

Maturity of transactional systems (ERP, CRM) has leveled the playing field between business competitors for data capture but these systems generally have inefficient and siloed reporting. Efficient, flexible and timely use of volumes of data is the business “edge” of the future – this is the role of BI.

BI starts with providing a step-up from conventional reporting – by breaking down silos of data with flexible and responsive tools. As can be seen by vendor offerings, the aspiration is to move an organization down the path of analytical maturity, from past information to future insight.

**Analytical Maturity Journey**



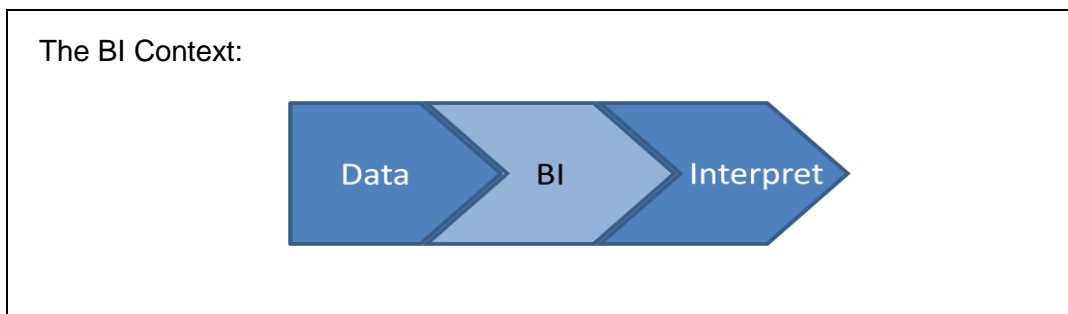
Source: T. Davenport, J. Harris (2010), *Analytics at Work* p.7

Few organizations have achieved this, but industry experience to date has given some reliable success indicators:

- Your journey should have a destination in mind, even knowing that destination may change over time. What are your business goals for BI, in the short and longer term?
- Use business goals to determine an ideal context for BI in your organization – what aspects of data collection and management should ideally be in place, and how could your organization maximize the business value of BI results?

**A Context for BI – Maximizing Chances of Success**

The context for BI can be thought of as what should go in, and how to use what comes out of it. This will shape the design of BI itself.



## **Data**

For BI to be effective, challenges related to the data it consumes must be overcome:

- Data must be collected from all disparate sources
- Metadata must be consistent across all data sources (and naming definitions at point of capture)
- Data quality and governance must be strong (duplicates, same items under multiple keys)

The value to the business of BI which uses quality data should reach the minimum standard of more comprehensive and timely reporting than is available currently. A pragmatic bottom line is that “you need to make a commitment to conceiving of data as a competitive advantage”.<sup>ii</sup>

## **Interpret**

Interpretation refers to a culture of “data science”, that is the ‘how and why’ rather than only the ‘what and where’. For instance, traditional reporting would tell you how many widgets you sold in a region compared to last year, whereas data science would tell you why sales plummeted in the Northeast compared to every other region or at least have a hypothesis<sup>iii</sup>. This follows the analytical maturity path.

Developing a more analytical culture creates demand for tools, and a willingness of the business to take on more analytical responsibility. The changing nature of that demand over time reflects evolving analytical maturity.

The process of delivering a BI tool needs to reflect this evolution. IT departments like to complete projects. In typical BI environments, IT will identify the data that it wants to bring in, create data structures to house the data and finally, create integrations to update the data periodically. Then they are done. It should run automatically and be self maintaining. From the business side, you have just started. Typically you can create reports that identify past performance. But as you answer questions, you have more questions that require different data. True BI needs the tool to be in the hands of the user, not IT.

## **BI**

Once prerequisite data and post-requisite culture is considered, the final success indicator is the quality of the tool itself to allow those who interpret – ideally the data scientists – to sense and respond to both market driven changes themselves or new ways of viewing them. For that, there needs to be flexibility and ease of use in creating hypotheses for testing, and accuracy and timeliness in BI execution. The pursuit of timeliness of execution for instance accounts for the interest in “in memory processing” by the major enterprise BI vendors in the current market.

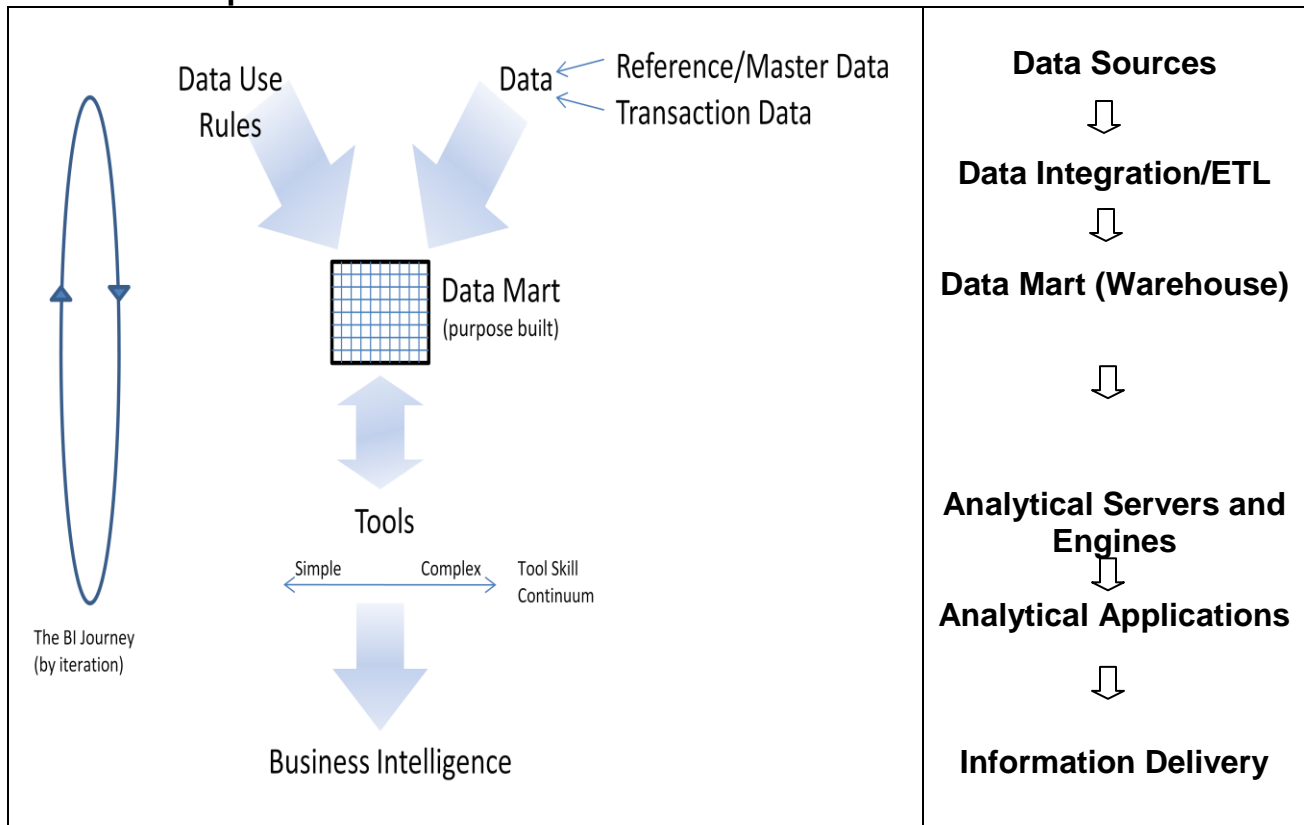
BI tool choices will be primarily decided by the following:

- Overall business goals of BI
  - Defined in terms of business value to be achieved, the “what”
- The current analytical maturity of the organization
  - Tools relevant to current skills sets and workflow, the “how”
  - Maturity should be a window of the journey over the next 1-2 years, understanding the iterative nature means future toolset revisions

Recognizing this context is key to BI success. Most organizations implement a BI ‘solution’ identified and sourced by their IT departments without much input from the business. Often what results is a cultural mismatch between ‘the tool’, the user skill set, and a marginal understanding what problems are actually being faced by the business.

## Basic BI Components

### The BI Concept



There are three main components to Business Intelligence:

#### 1) Repository of Data ('Data Mart')

A Data Mart is a repository created for a specific business purpose, and is of a tactical nature. Multiple Data Marts may exist within an organization and may have a limited lifespan.

Data Marts contain two flavors of data:

##### a) Reference or Master Data.

- Basic data reused to drive the normal course of business.
- Some sets complete (such as Customer records), while some are partial (zip codes) but can be completed from external sources.

b) Transaction Data.

- Results Data representing completed business processes (such as purchase or Sales Orders).

## **2) Data Use Rules**

Data use rules describe how the data elements within the Data Mart are related to one another, and limits on how they can be used/combined/accessed: for instance, the fields which make up a valid sale transaction.

Data use rules will derive from the larger set of business rules and definitions that are used by the business. Some of these are industry standards (such as accounting rules, revenue recognition for sale values), and some are internally defined (such as sales areas and representation for incentive compensation).

## **3) Tools to Access Data Marts**

A continuum of tools exists depending on the skills and needs of the Business user in fulfilling their need. An organization may have a unique distribution of skill levels, but should generally plan on implementing tools scalable to a standard of their higher skilled users. Key to this decision is *knowing* the skill levels within the organization.

Based on this structure of a BI solution, we can make the BI context requirements more definite:

1) What is the Business Purpose or Need for Business Intelligence?

- This will determine parameters for the Data Mart (data inclusion and rules).
- These parameters will give the direction for metadata consistency.

2) How mature are BI skills in your organization?

- This will determine tool selection now and for the future.
- Maturity requires an honest assessment of culture today and its development.

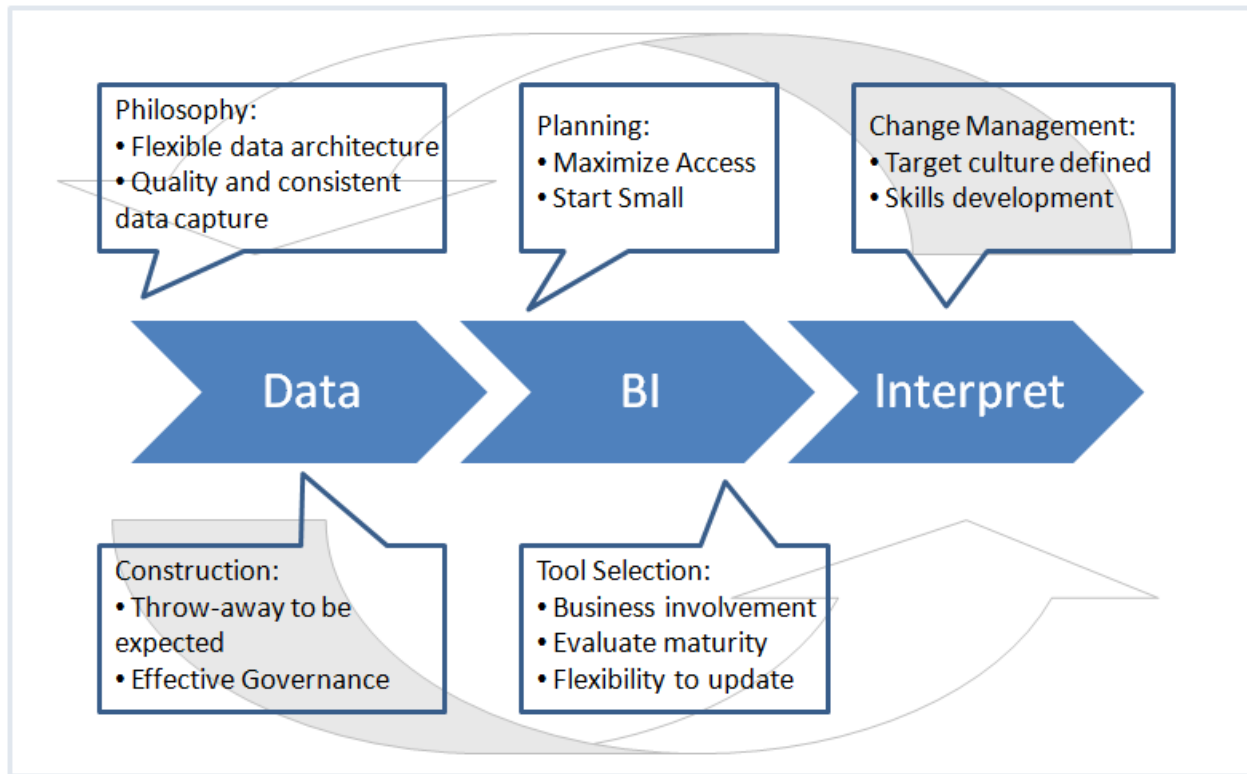
## Operational Implications for your Organization

With the imperative for BI established, the pre and post requisites required, and having looked at both what BI is (in non technical and technology terms), the question becomes – what next? How to mobilize for an effective, business focused, low cost and timely BI approach?

Through our experience we have found the following points should be considered:

- The Need for a flexible solution to change and reinvent Data Marts over time.
  - Features such as work/scratch areas, and 'what if' tools are good.
  - An approach of one-time creation is bad.
  - Corporate standards provide a Framework but do not dictate rigid tools and enterprise solution detail.
- A certain amount of throw-away is to be expected.
  - Fast and efficient development tools are key.
  - Lifetime ROI and business value determine investment strategy for projects.
- Data Access rather than limitation must be the guiding philosophy.
  - The driver of the BI journey is the business monitoring their environment.
  - Tool selection today and over time is key to business acceptance.
- Data Quality, consistency, and governance must be in place
  - In common with transformations of the recent past (ERP) data must be 'clean' and remain so.
- Culture change must be on the agenda
  - Data science rather than report creation must be the end goal.
  - Self-service, hands-off BI by empowered decision makers, understood and facilitated by IT
- Start small
  - Select a small business area with defined data needs to pilot the processes, practices, applications and technologies of BI over a defined time period
  - Do not be seduced by the expensive time consuming needs for transformation of the technology component alone

While these cover a portion of lessons learned, the overall challenge is to consider BI a journey over time with many connected components required for success:



## How we can help

Organon Professional Services can assist in facilitating your BI journey by starting with a basic evaluation. What data you have available and accessible today, what are your immediate business needs, your organization characteristics, and propose a recommended BI strategy and roadmap of activities. If you have already started on your BI journey, we can offer an unbiased 'healthcheck' on your progress and strategy to date.

## About Organon Professional Services

For the past 12 years, Organon has focused on building custom Decision Support, Business Intelligence, and Supply Chain Optimization solutions that have not only resulted in exceptional returns for our customers but have also improved our customers' competitive and strategic positions within the healthcare marketplace. We bring to our projects a diverse set of skills that include industrial engineering, financial analysis, and statistical analysis. Organon is a small and nimble organization, working collaboratively with our clients to deliver real ROI in short and contained engagements.

## Why Organon?

Our heritage is in high volume, diverse channel Pharmaceutical distribution, which encompasses many of the complexities in decision modeling. Our work has required flexible solutions in a regulated environment, driven by massive volumes and constant structural changes to the market. We are well positioned to carry our expertise of building data driven decision making processes and tools under accelerated market driven deadlines to your organization.

## Contact Us:

**Phone: (866) 314-5040 x-4438**

**Email: [info@organonweb.com](mailto:info@organonweb.com)**

---

<sup>i</sup> David White (2011), [Agile BI: Three Steps to Analytical Heaven](#), The Aberdeen Group

<sup>ii</sup> Jeff Hammerbacher (October 2011), [Competing through Data: Three Experts Offer their game plans](#), McKinsey Global Institute

<sup>iii</sup> Adapted from D. Wodds (10/11/2011), [EMC Greenplum's Steven Hillion on What is Data Scientist](#), Forbes Magazine