

Implementing BI in an ERP environment

4 “must’s” to increase your chance to success



Imagine an organization who migrates its legacy applications to an ERP system with standardized processes along the organization or is replacing and fine-tuning its current ERP environment.

BI already exists in the organization but is diffused over different user groups and processes and over different technologies, systems and data warehouses.

It is advisable that the new ERP processes will be supported by a new corporate BI reporting system.

There are several aspects where it can go wrong and what can go wrong when starting to introduce BI within the organization.

Implementing BI in an ERP environment will force you to clearly take position on 4 important BI “Must’s”. This will significantly increase the chance to be successful with the launch of your BI environment through the organization:

1. Clear sponsorship of the BI strategy at senior management level
2. Close the GAP between operation tactical and strategic level
3. Get the basics right
4. Iterative development approach

Clear sponsorship of the BI strategy at senior management level

Many organizations believe they have a clear vision and strategy around their Business Intelligence.

Fact is that in most of these organizations this vision on BI is restricted to the choice for a certain reporting tool and technology.

The BI organization and BI processes to support the technology is missing. BI is then treated on departmental level and the link between business and IT is very weak.

Clear signs for this are:

- Many private databases and excel sheets that allow the departments to manipulate and produce their own numbers.
- The same reports are produced in different departments and levels and give significant different numbers, e.g. Sales and finance are looking at different numbers.
- The same KPI to compare business units among each other are calculated in a different way.
- The authority for initiating report requests is not centralized. There is no distinction between business and IT.
- Lack of upstream interest for downstream effort, no feedback from the recipients.

Every effective BI environment starts with a clear BI strategy supported by the higher management level and by both business and IT.

This strategy clearly describes the BI organization that has to be introduced, the processes that will be in place and the technology that will be used with clear responsibilities for both business and IT.

Only Executive sponsorship and leading by example is able to make the change happen from reporting islands to corporate business Intelligence.

It is recommended that the complete BI strategy including organization and processes are implemented and already up-to-speed at the moment of GO-Live of the BI system. Ideally is to follow already the processes and organization during project phase.

Clear sponsorship of the BI strategy at higher management level leads to success!

Close the GAP between operational tactical and strategic level:

The challenge of BI is to close the gaps between the different reporting levels: operational, tactical and strategic level.



- At **strategic level** we align the operations with the high level corporate strategy. At this level the management can follow the reporting and monitoring of key, balanced performance measures that reflect desired results of the strategic plan. The management can communicate the results of corporate and functional scorecards throughout the organization.
- At **tactical level** we combine the different processes together in so called "data marts". These enable us to make multidimensional analyses of performance measurement GAP's and perform Ad Hoc analysis. At

this level we will monitor operational progress against initiatives. Drill down analyses will bring us deeper in the information triangle, to the operational reporting.

- At **operational level** we are monitoring the operations e.g. logistics, inventories outstanding deliveries, invoices... Operational reports can be retrieved either from the operational systems or from the BI environment. Many operational reports are standard available in the ERP systems. However creating new reports and KPI's in the BI environment is easier for business people and does not impact the performance of your operational systems. On the other hand real time reports can only be retrieved from the ERP system.

BI data is generally captured at operational level (transactions). Translating data into information that can be used on tactical or strategic level is not simply a question of aggregation: it is a challenging exercise. The challenge is not as such on the technical side but more on linking all the pieces together.

When taking the requirements for reports for a certain department also consider taking into account the analytical needs for other departments. This can lead to better data modeling in BI and also to a review of the ERP processes. Fact is that it will not be possible to collect all requirements within all departments and processes because this will explode the scope of your project. However detailed requirements within the most important department combined with a high level overview within the other departments will lead to a better preparation and understanding of the needed data models.

We notice that often in organizations without corporate reporting yet in place there is a lack of:

- Harmonized processes
- Common business language (definitions)
- Harmonized KPI's
- Management routines are often not formally defined

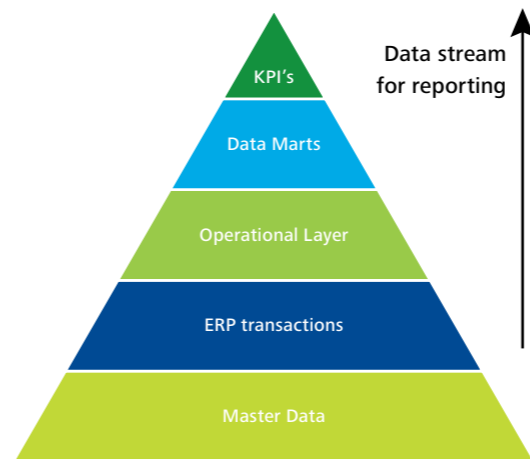
In a perfect world you will approach your corporate reporting strategy top down, starting with defining KPI's that support your strategy. Unfortunately this will lead to a massive project scope and implementation track. The chance to succeed in such a big bang does not exist. KPI's on strategically level are very difficult to understand because of the level of aggregation. The GAP between the KPI and the operational transaction is so huge that

only the happy few will be able to put these in context. Therefore we make a fundamental distinction between corporate reporting and performance management. Corporate reporting starts at operational level into tactical information. The more you go to strategic level the more you get into performance management.

There is no doubt that introducing BI in an organization has to focus on operational reporting and on the legally required reports in a first phase with taking into account the requirements on the other levels.

This brings us to the next challenge:

Get the basics right:



The quality of the KPI's to monitor the corporate strategy is depending on the quality of the data in each data layer in the reporting chain. Correct reports and analysis is depending immediately on the quality of your data in the source systems. Every data layer in the dataflow has its purpose and importance. The reporting chain is as strong as its weakest link.

The foundation layer for high quality data is the master data.

Master data are any data that is applicable across multiple business transactions and within the business intelligence environment. It is typically static in nature. Master data are the fundamentals for your ERP systems and BI solutions. They are used to define basic information required to execute the transactions and reports. (e.g. vendors, customers, materials,...).

Master data are used for:

- Billing your customers (Name, address, payment

terms, products bought, direct debit from bank account, ...)

- Paying your employees (Name, address, salary, company benefits, ...)
- Monitoring your supply chain (Stock items, cost to make, cost to serve, new product launch, ...)
- Receiving customer orders: product information
- Monitoring compliance (Sarbanes-Oxley)
- Calculating KPI's

Master data are used in nearly everything you do within your company.

Typical sources for data quality issues in master data are:

- Errors in data entry process e.g. misspellings, transpositions of numerals ("23" instead of "32"), incorrect or missing codes, data placed in the wrong fields, (First name = Sixpack),....
- Lack of Validation Routines
- Spider web of system interfaces and unexpected changes in the source systems
- Duplication within different systems

The challenge of master data is definitely a topic to be clarified in the BI strategy and has to be positioned in the organization and within the processes.

Once the basics are right and your data has reached a certain maturity in terms of data quality, organizations can start gaining competitive advantage from their BI systems

Getting the basics right before introducing business Intelligence and corporate performance management is a "MUST".

Interactive development approach

Introducing new business processes and implementing these in an ERP environment always start with scoping, requirements gathering and blueprinting. This is not different for BI. However the way to approach the scope setting and requirements gathering for BI is fundamentally different from any other business process. This is definitely the case when BI is implemented at the same time the ERP processes are implemented. Normal reaction to start the process of scope definition is by talking to the business, the process consultants, IT and the existing BI staff.

Unfortunately reality is different from theory as:

- The business does not yet know yet the processes and can only refer to the AS-IS reports

- The process consultants do not have time to investigate BI requirements as they are too busy with designing and implementing the new processes
- IT is not proactive because of frustration about the new coming system. What was wrong with the old one?
- BI consultants do not have enough knowledge about the business processes

Fact is that lots of time and money are lost in trying to get the BI scope and the requirements clear and approved.

Is there a way to encounter these paradigms?

You must know that standard ERP systems cover already 80% of the current legacy reporting requirements.

This is because most of these reports are data integrity checks between and within applications. These will become obsolete within an ERP environment. Immediate result is that the number of BI reports needed, will drop dramatically compared to the AS-IS reporting scope.

Knowing you have to find out what the business really need and not what they just want. The focus during requirements gathering has to be put on the most important reports rather than taking all current reports in scope. The most important reports are these that are statutory needed and the top 5 business reports per process.

Nowadays every BI vendor offers predefined content or packaged solutions for the most important processes, Sales and marketing, procurement, finance and operations,...

Installing these packages will get you up to speed quickly and on speaking terms with the business users. The path to clarifying and fine tune the 5 top reports is now there. We go from a traditional implementation approach to an interactive implementation. This is also called "agile" BI.

Conclusion

Implementing BI within an ERP is challenging and needs specific attention from project and senior management. Taking into account the "4 BI must's", will definitely significantly increase the chance to succeed. Having all components right at GO-Live within a limited scope guarantees future success and user adoption. Growth of the data warehouse and report catalogue is then a natural process that will be managed by the organization and processes. Corporate reporting can easily grow to integrated performance management and support gaining competitive advantage against the competitors.

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