

## STRATEGIC INTELLIGENCE WITH BI COMPETENCY CENTER

Student Rodica Maria BOGZA, Ph.D.  
The Bucharest Academy of Economic Studies

### ABSTRACT

*The paper is about the strategic impact of BI, the necessity for BI and how BI would drive the success of an organization. It will continue emphasizing the way in which new technologies and ideas emerge in the business world.*

*BI is a strategic initiative by which organizations measure and drive the effectiveness of their competitive strategy. In achieving this grand goal, there is need for analyse, software, resources, technical leadership, process leadership, executive champions and much more. It is a long term process and it can be broken down to goals, which are periodically analysed for a good manage of resources and growth. An effective way of creating and managing BI is to start with a BI competency center. The BI competency center's (BICC's) role is to champion the BI technologies and define standards, as well as the business-alignment, project prioritization, management and skills issues associated with significant BI projects.*

*A BI competency center at least must have a BI leader dedicated to acceptance and success of the BI initiative. There must be at least three key leaders under the BI leader: data management leader, business process leader and project management leader, each having their responsibilities and role. In order to implement a competitive strategy, the executive team establishes tactics and tasks that are materialized into several projects across the organization. The effort of the BI competency team is to identify the metrics and data sources relevant to the matter, for obtaining the desired goal. The effort required to accomplish these goals are above and beyond the responsibilities of a typical IT organization because involvement is needed from other departments. BI competency centers bring additional boost to the productivity of the IT organization. As organizations are facing several complex decisions every day, the investment in a BI competency center becomes easily justifiable.*

### KEY WORDS

*BI competency center, BI leader, Data Management leader, business process leader, project management leader*

### BI VERSUS GUT FEEL

The key to this vital knowledge lies in the huge amount of data that every organization already collects. BI uncovers a lot of competitive advantages by transforming that raw data into actionable intelligence and by creating knowledge to implement winning strategies and deliver information that can be leveraged by the entire organization.

One of the greatest inhibitors to competitive advantage is acting solely on 'gut feel' and 'intuition'. The decisions based on what someone feels can not be measured, repeated, shared or easily understood. The specialized knowledge needs to be joined with the data to improve future decision making and provide competitive advantage.

## CRITERIA FOR TRUE BUSINESS INTELLIGENCE

**BREADTH:** It integrates functions and technologies from across the organization. Integrated BI integrates data from every corner of the organization – from operational/transactional systems, multiple databases in different formats, and all contact channels. The information flow can transcend organizational boundaries, computing platforms, and specialized tools.

**DEPTH :** It reaches all who need it, in a way that is relevant to them. A real BI solution provides appropriate interfaces and tools for users at different levels of organization, who have different needs. The results of analysis should be easily disseminated across all functional areas and organizational levels.

**COMPLETENESS:** It is a comprehensive, end-to-end platform. BI is not just query and reporting. It depends on a chain of applications and technologies working together from a common data foundation to create a single version of truth.

**ADVANCED ANALYTICS:** It delivers predictive insights, not just hindsight. Online Analytical Processing (OLAP) is a valuable part of the picture, but isn't the only source of competitive differentiation. BI requires not only historical query and reporting, but predictive analytics, such as scenario planning, forecasting, optimization and risk analysis.

**DATA QUALITY:** Data is vital to the decision making process, and ensuring that one has the right data is imperative. The quality of data affects directly the return on BI investment.

**INTELLIGENCE STORAGE:** it meets the information needs of intelligence applications. The data storage platform must be able to draw on information from many sources, prepare it for analysis, and deliver it quickly to the applications and platform that need it.

Bi is not only about software. The success of BI projects is sustained by a proper environment for BI, which includes the appropriate processes, the people with in-depth BI skills, and an organizational culture focused on fact-based decision making.

## BICC

The challenges in exploiting Business Intelligence can be defined in six categories :

Data challenges

Technology challenges

Process challenges

Strategy challenges

Users' challenges

Cultural challenges

**DATA CHALLENGES:** Data are the heart of all BI initiatives. The data required and the time and effort necessary to collect the necessary data and to ensure their accuracy are often underestimated. Data issues are most costly element of BI implementation. It takes a lot of time, resources, and effort to identify, map, and create the necessary rules and processes to ensure that data are used consistently and accurately across the organization, promoting a single version of truth.

Usually, the disparate data sources don't speak to each other, and each might be managed by different groups that report to different organizational entities. Once data have been correctly identified and collected, data quality has to be considered. Ignoring this would be a costly mistake. Analysis must take place to ensure that the data collected are correct and suitable for decision-making processes. It's better to insert a data quality process to the source of data. Resolving data quality issues requires communication and working together with various groups and experts to resolve the root causes and underlying issues. Therefore, one has to

include a data stewardship function into the BICC, where the data quality topics can be adequately addressed.

Data storage is another obstacle for BI. Data often are stored in multiple formats, in multiple places, and in multiple databases. Data must be accessed and consolidated into consistent business views that support a fit-for-use approach for delivery despite storage complexities and limitations.

**TECHNOLOGY CHALLENGES:** The proliferation of disconnected information silos poses obstacles to the successful creation of knowledge within an organization. Since individual departments have been run like separate business and often used disparate hardware, platforms, system standards and databases, the BICC has to provide means of addressing the whole information value chain. Often the success of a particular piece of BI technology rests not only on its use in the organization, but on what precedes it in the value chain. Over time, organizations have accumulated a complex set of heterogeneous tools and infrastructure technologies that are not very well integrated. The BICC plays a key role in balancing corporate governance while providing the flexibility required to get the job done.

**PROCESS CHALLENGES:** BI is a process, not a software product. Processes can be changed and measured and are documented, making them repeatable and able to adapt to changing business requirements. And the key to successful processes is people. Organizations that marry their human capital, culture, knowledge processes, and infrastructure by creating a BICC are prepared and poised to meet the continuously changing demands of their customers and maximize potential.

**STRATEGY CHALLENGE:** The goal is to align all BI initiatives in order to support the organizational strategy. But, different groups in the organization have different BI needs and start their own independent BI projects. The BI strategy represents the way in which information delivery needs from management and operations are addressed and met.

**USERS' CHALLENGES:** BI can enhance everyone's decision making across the organization. Understanding the different audiences and their information needs, skills and goals is vital for the success of a BI implementation. A BICC can help to identify the different audiences, to understand their needs, to shape their requirements and training, and coach them so that they can drive the right conclusion from the data available to them. The goal is to use BI to its greatest effect and to raise the overall maturity of the organization.

**CULTURAL challenges:** the culture that can be a great inhibitor, needs to be such that it encourages fact-based decision making- that is, people can get to the information they need to make their decisions in an easy and timely fashion. The BICC can contribute to understand the culture of the organization and to leverage it for its best advantage, so that the strategic use of information becomes a core competency for the organization.

**WHAT IS A BICC ?**

BICC is a a cross-functional team, with a permanent, formal organizational structure. It has employees from the organization itself, although some roles can be outsourced. The BICC has the task of driving the use of BI throughout the organization, making it available to business users at different levels and providing advice and support for all BI-related questions, including assistance with the interpretation of information.

A BICC enables the organization to coordinate and complement existing efforts in the area of BI, while reducing redundancy and increasing effectiveness. The centralization of these

efforts ensures that information and best practices are communicated and shared through the entire organization so that everyone can benefit from successes.

A central mandate for the BICC is to enable knowledge transfer and enhance analytic skills and enable the business units to meet their goals. The BICC can coach and train business users to empower them with new skills that drive competitiveness. It can be instrumental in turning analysis into action and ensuring higher levels of ROI from BI.

Arguments for establishing a BICC

- Preserve and exploit the full value of technology investments
- Integrate and consolidate business and analytical intelligence processes and initiatives
- Reduce overall risk of implementation projects and project realization
- Support business users in fully understanding data and acting properly on analyses
- Ensure that BI knowledge (BI value, concepts and technology) is shared in the organization

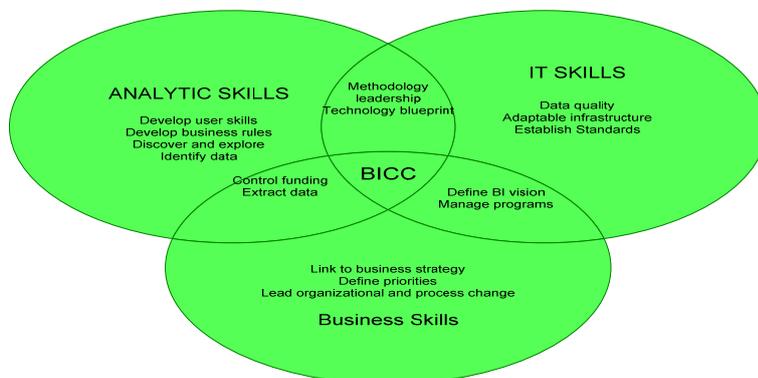
The BICC should be the ‘center of gravitation’, where different skill sets are combined for one common goal : to understand better the business and interpret current business results and predict the future more accurately. In order to do this, a combination of business, IT, and analytical skills is required.

Generally the BICC is placed in an organization in the IT division or in the MIS division, in both cases doing reports to business management.

AXES OF A BICC :

- Business needs
- Organization and processes
- Tools and application
- Data integration and management

NECESSARY SKILLS FOR A BICC:

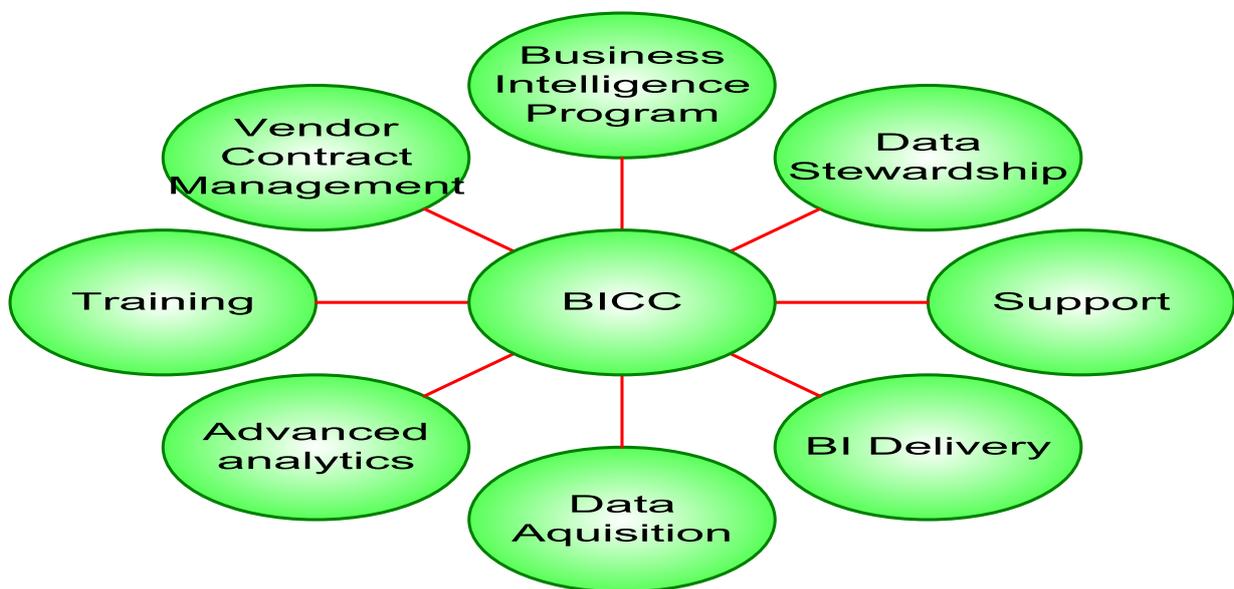


RESPONSIBILITY AREAS of a BICC

- Knowledge management
- Business-related consulting
- Analytics
- Data warehousing
- Enterprise data model management
- Training
- Help desk
- Integration process management

## FUNCTIONAL AREAS INSIDE THE BICC

- \* Business intelligence program
- \* Data stewardship
- \* Support
- \* BI delivery
- \* Data acquisition
- \* Advanced analytics
- \* Training
- \* Vendor contracts management



Detailed checklist for the functional areas in the BICC

### **Business intelligence program**

- Defining the BI and AI (analytical intelligence) strategy and its link to the corporate strategy
- Managing standards and templates for BI / analytical intelligence
- Establishing and monitoring key performance indicators (ex : ROI) for the success of BI and BICC
- Business related consulting
- BI project office management
- Function specialization
- Service management
- Internal marketing of the BICC
- Knowledge management
- Metadata management

- BI-related security (common to all functional areas)
- Information quality
- Service level agreements (between the BICC and the business units)
- Cooperation with corporate IT with regard to hardware architecture, capacity planning, etc.

### **Data stewardship**

- Metadata management ownership (technical metadata only)
- Data standards
- Definitions
- Data governance
- Data quality

### **BI delivery**

- Front-end BI distribution (portal, channel delivery, etc.);
- Front-end BI application development, warehouse-based applications (reporting, OLAP)
- Testing
- Maintenance
- Technical consulting

### **Data acquisition**

- Data integration / development/ testing/ maintenance
- Data store development / optimization / testing / maintenance
- Scheduling
- Technical consulting
- Integration processes

### **Advanced analytics**

- Statistical analyses, modeling, forecasting, optimization, etc.
- Data mining
- Research and experimenting
- Data preparation for analytical processes

### **Training**

- Training development
- Training (business use / product specific)
- Vendor contracts management
- User licenses
- Service-level agreements with vendors (BI related)

### **Vendor management**

- Product evaluation
- Interface to purchasing/ legal departments

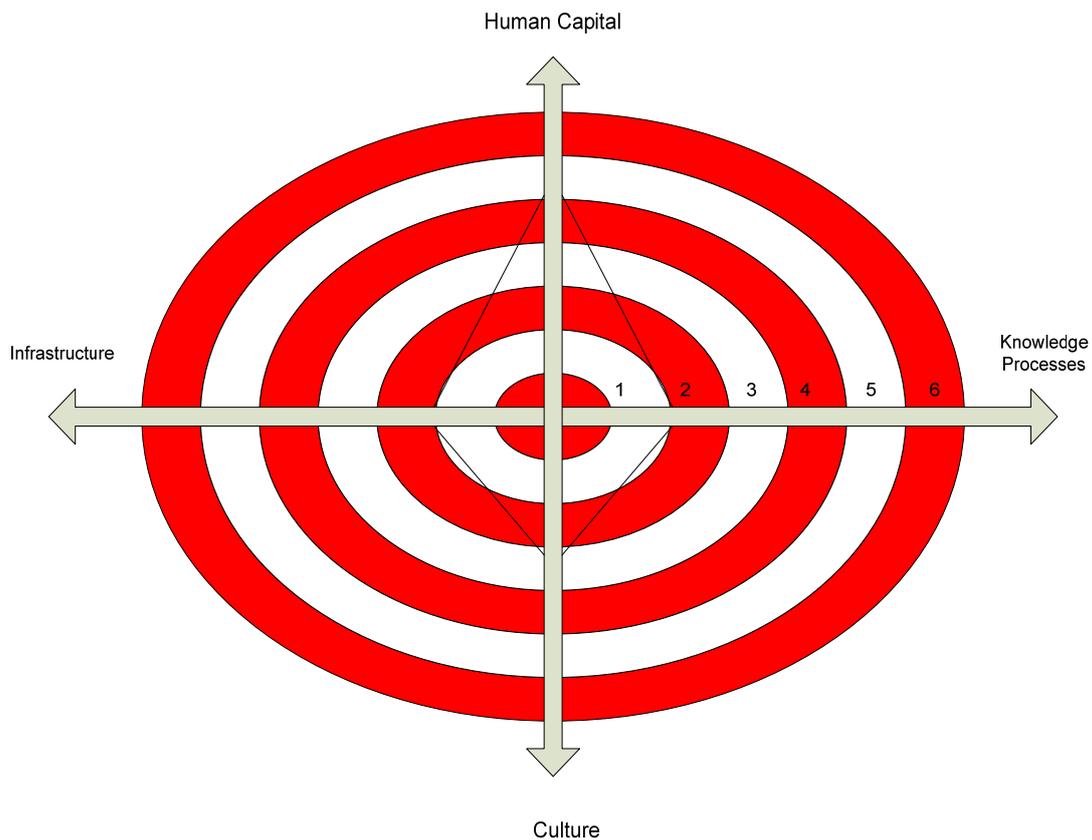
## RELATED FUNCTIONAL AREAS

The next function are generally not part of a BICC. They exist in the organization for other purposes, but it is important that these functions work closely with the BICC.

- Service desk/support :
- System administration
- Technical change management
- Database administration

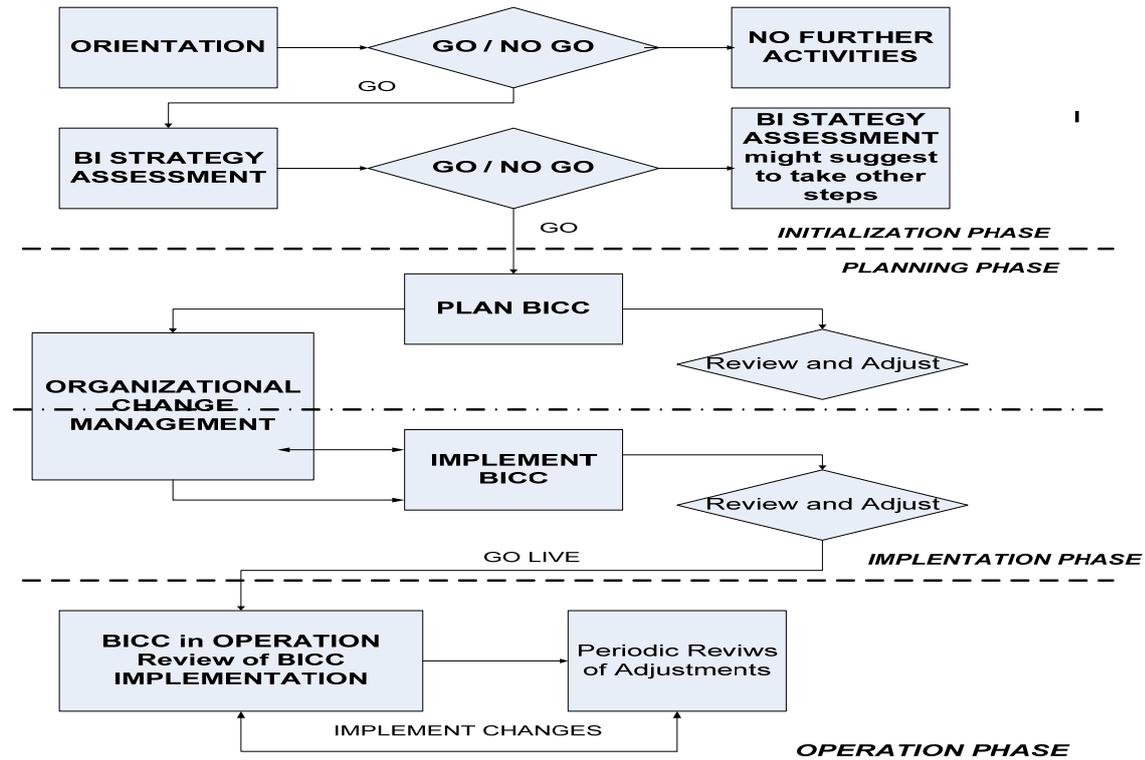
## Planning a Business Intelligence Competency Center : using the Information Evolution Model

### Four Critical Dimensions of the Information Evolution Model

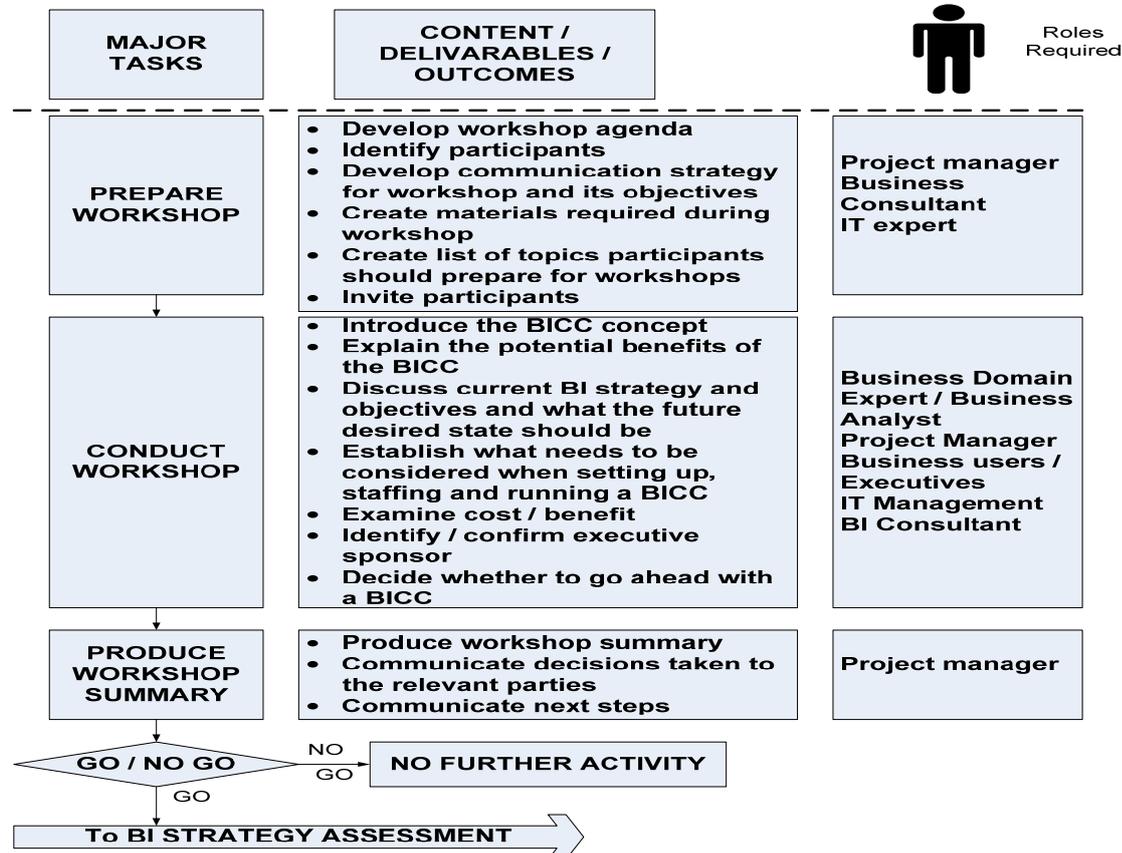


### Five Levels of maturity in the information evolution model

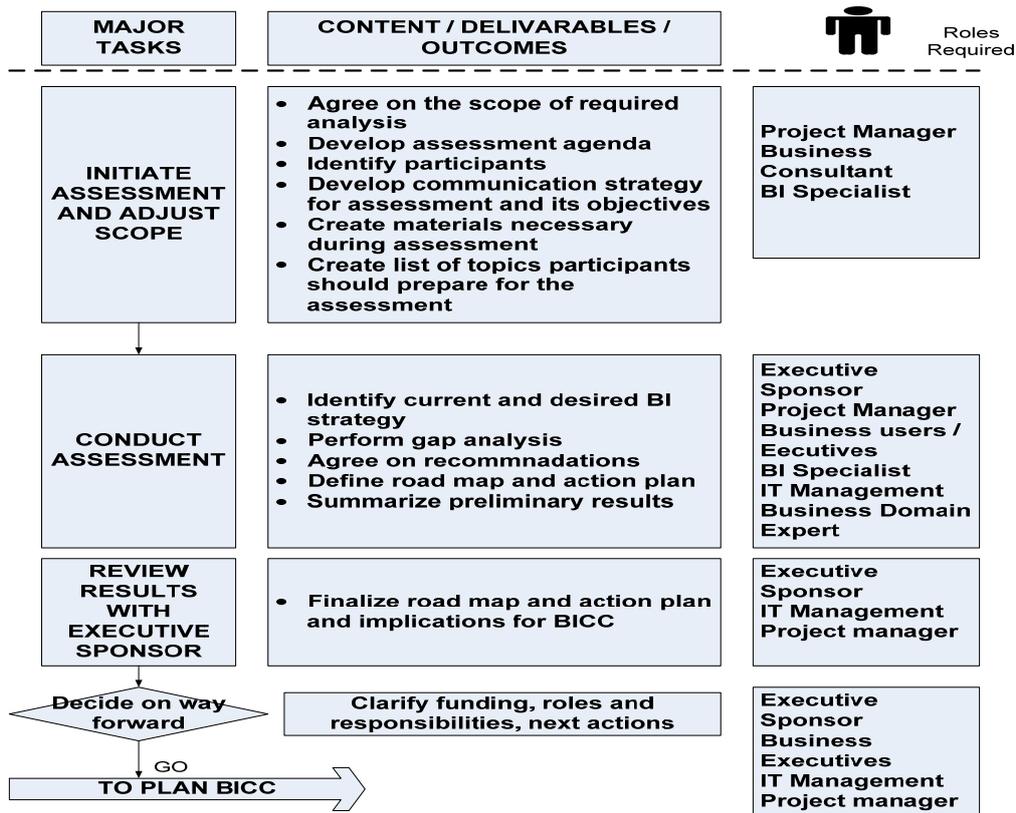
# Setting up and ensuring ongoing support Business intelligence competency center setup



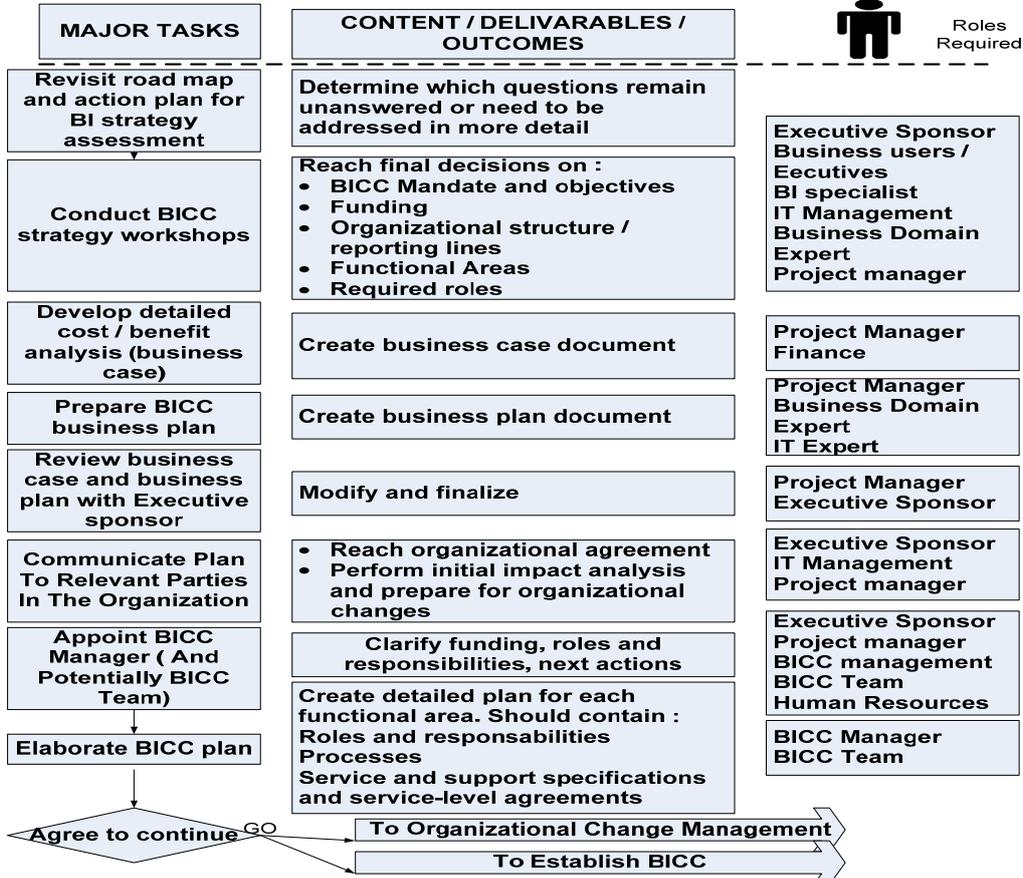
The aim of the **ORIENTATION PHASE** is to introduce the stakeholders and other involved parties in the organization to the BICC concept and explore whether it has value for the organization. This could happen in a workshop format.



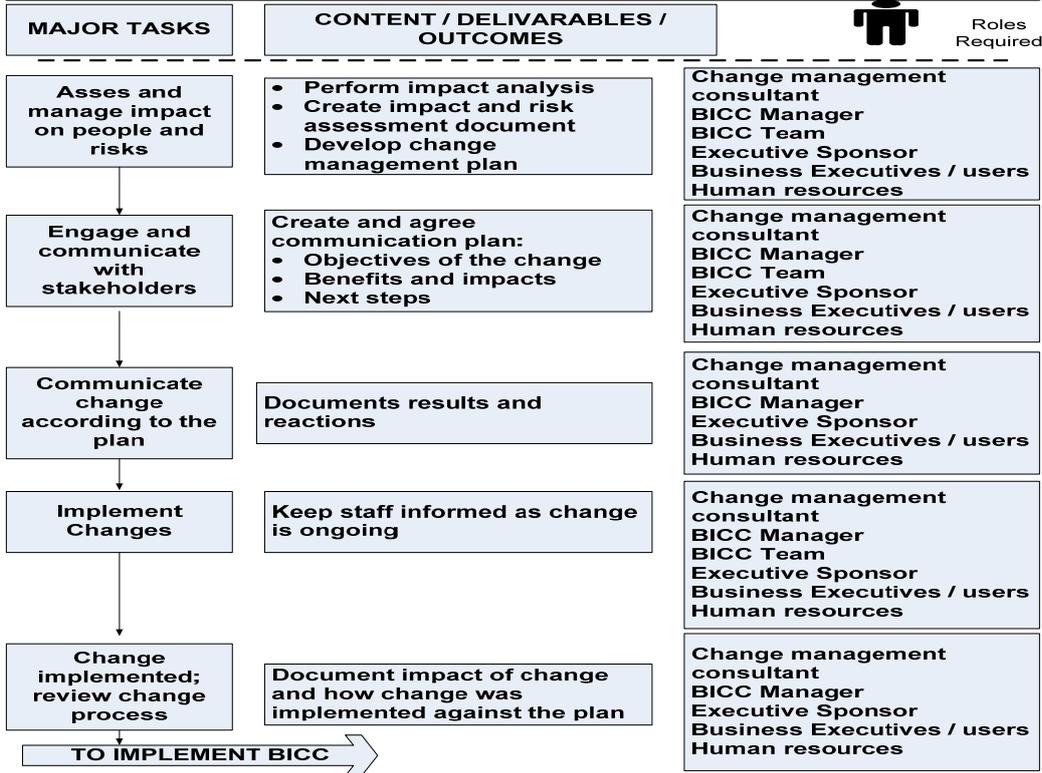
The aim of the **STRATEGY ASSESSMENT PHASE** is to determine if there are any gaps between the desired and the current BI strategy.



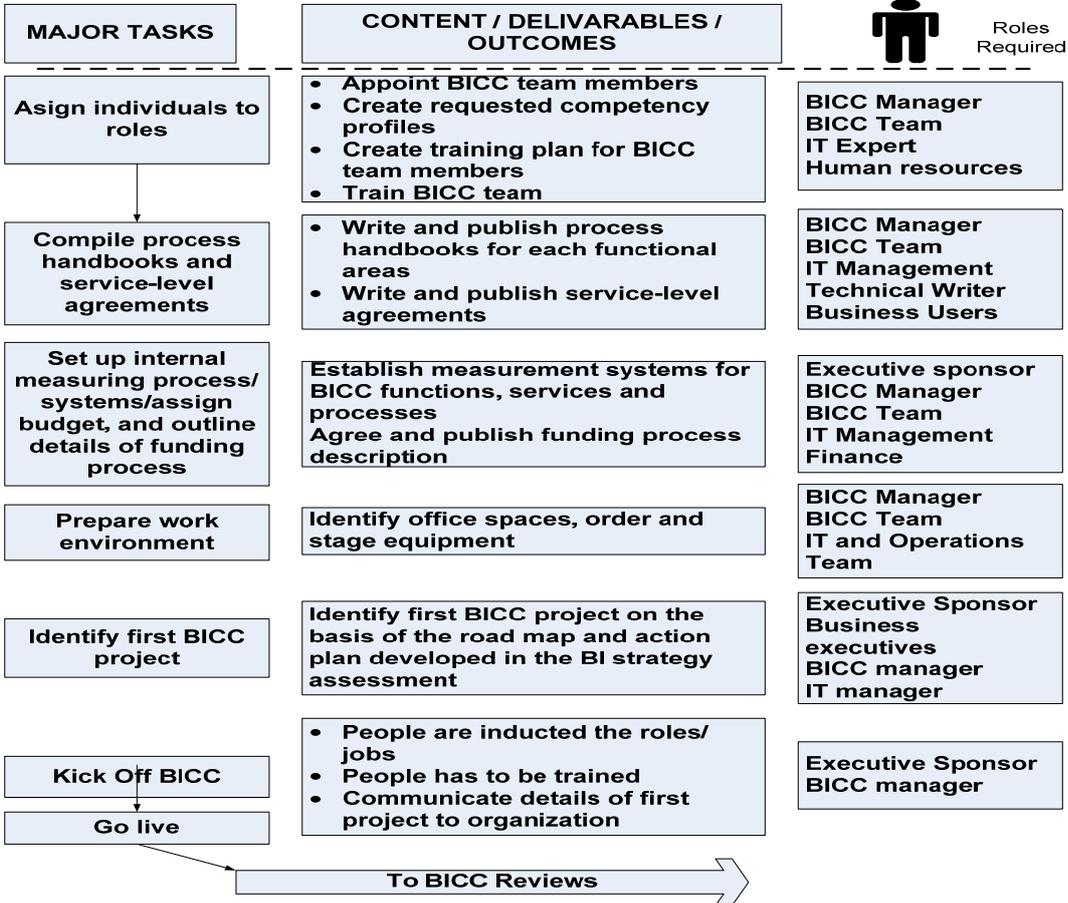
The aim of the **PLANNING PHASE** is to work in detail through all the questions that need to be clarified before the BICC goes live. Planning the BICC is based on the agreed strategy. Organizational change management should occur concurrently to the planning.

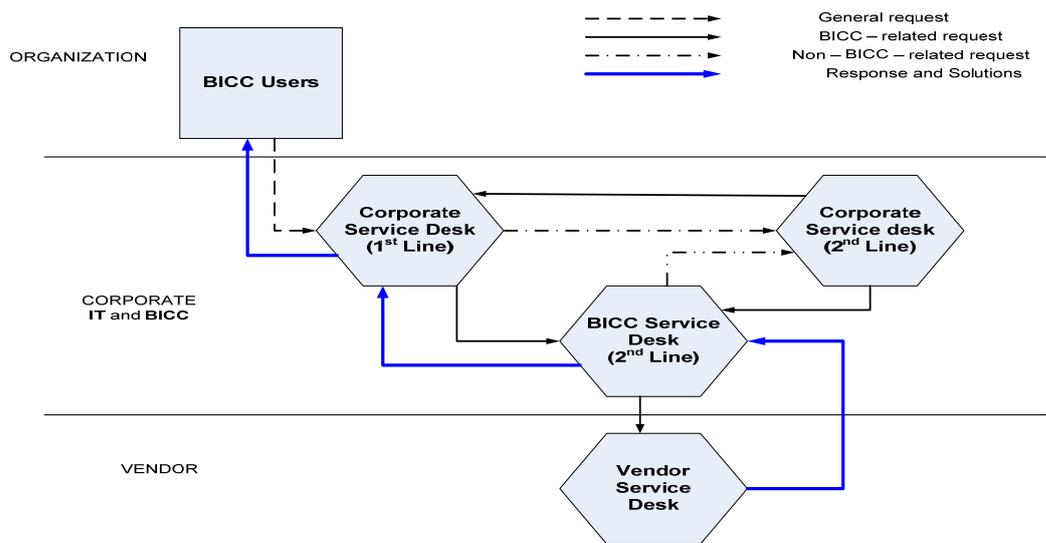


The aim of the **CHANGE MANAGEMENT PHASE** is to support the organizational change caused by the BICC setup. Change management should start before the "implement BICC" phase, preferably during the "BICC plan" phase, and will be conducted concurrently with the "implement BICC" phase.



The aim of the **IMPLEMENTATION PHASE** is to prepare the BICC team for its new role, and to communicate the existence of the BICC in the organization. Organizational change management activities should run concurrently during the planning and implementation phases of the BICC.





## **Recommendations for a Highly Effective Business Intelligence Competency Center**

### ***Have a Vision for Business Intelligence***

Executive management has to be convinced of the idea that information is a highly valuable asset and needs to be managed. Management must communicate to the rest of the organization that BI can be used to drive business forward, by assigning the BICC a prominent and influential place in the organization. Management needs to commit to a culture of fact-based decision making.

### ***Create a Joint Venture between business and IT***

The BICC needs to act as a broker that brings together business understanding and technology expertise. The BICC, by definition, tries to provide intelligence to the business.

### ***It's a process, not a project***

The BICC should stay, once implemented. It should not be treated as a project with a start and end date. Integrating BI into business is an ongoing process. As business requirements change, there is a constant need for more advanced, or “a different kind” of intelligence. An intelligent company is always accustomed to fact-based decision making and wants to use information in more and more of its business processes.

### ***Maintain clear vision, concrete objectives***

The vision of creating and maintaining a BICC needs to be understood and supported by all the affected parties of an organization. In order to prove the tangible value of a BICC, it is very important to define measurable and realistic objectives that are transparent to the stakeholders and to the BICC, and then to translate them into concrete short-term achievements.

### ***Integrate and consolidate***

The BICC should oversee all the BI-related initiatives on an organizational level and guard against overlap, redundancy, and information silos. It should evaluate which tools and technologies are fit for the purposes of the organization and drive standardization efforts while ensuring it is enabling the needs of the business.

### ***Practice effective change management***

Change is the only constant, and the acceptance of change is greatly increased by a thorough Change Management plan that caters to the impacts and highlights on the risks and benefits. In order to avoid any potential problem or conflict resulting from a change, it is very important to involve affected individuals as much as possible in the BICC setup and by including them in a BI needs analysis.

### ***Carry out staff induction, training, development***

It is essential that everyone in the BICC team is very clear on roles and responsibilities and how they relate to other departments. A training assessment will also be required for the business users.

### ***Deliver ongoing value***

Once the BICC is setup, it has to demonstrate its value to the organization on an ongoing basis. The overall goal of a BICC is to provide ongoing value to the business by supplying the intelligence needed to achieve corporate objectives. The business should perceive this value all the time. Therefore, an effective communication strategy is a vital part of the BICC's work, where the center talks about its projects, successes, plans and achievements.

### ***Ensure the infrastructure's depth and breadth***

A BI infrastructure needs to satisfy and support each business area's requirements for information of varying complexity and allow for a timely delivery of that information. The infrastructure should enable the bi strategy to grow and develop over time and allow for sharing BI across functional areas.

### ***Use a multidimensional approach***

Successful BICC's understand that BI is not just about technology. First-class infrastructure needs to be combined with highly skilled people, transparent and efficient processes, and a culture that use fact-based decision making.

## **CONCLUSIONS**

A BICC can address a lot of issues – better use of BI across the organization, greater alignment and collaboration between units; a strategy that supports the corporate strategy; standardized BI processes and initiatives; consistency of definitions, processes, and methodologies; and higher ROI from BI.

In order to set up properly a BICC one has to follow some steps:

1. The BICC needs a clear mandate and strategy. It is not enough to say that the BICC is supposed to drive the BI strategy in the organization if there is no clarity in strategy. Some time and effort needs to be invested in understanding the BI requirements of the organization in support of the corporate strategy.
2. The BICC needs support from the executive sponsorship. Otherwise it will not be visible and influential enough to play the crucial role that it should assume. The aim has to be the alignment of BI goals across various functional areas, in support of the organization's strategy.
3. it is important to staff the BICC with representatives from both IT and the business. This combination ensures that both business understanding and IT know-how work together for answering the business's BI requirements.

A BICC is an excellent forum for addressing tactical issues efficiently and effectively, but it is important to consider also the strategic value of a BICC. The BICC is the initial contact point in the organization for any questions or problems that relate to BI strategy or software.

## REFERENCES :

1. [www.wikipedia.com](http://www.wikipedia.com)
2. [www.sas.com](http://www.sas.com)
3. [www.hbsp.harvard.edu](http://www.hbsp.harvard.edu) – Harvard Business School Press
4. <http://en.wikipedia.org/wiki/Community> of Practice
5. Alan Tiedrich, “The BI and Data Warehousing Tools Selection Process – A Recipe for Success”, *Proceedings of Gartner Business Intelligence Summit*, London, 2005.8.
6. Robert S. Kaplan, David P. Norton - *The Strategy-Focused Organization* – Harvard Business School Press, 2004