


Comprehensive Business Intelligence Service with Data Management & Big Data

The data fountain of knowledge

Comprehensive BI Service:

Business Intelligence is the art of turning data into information and information into knowledge, throughout the life cycle of the data, to optimise the decision-making process in business.

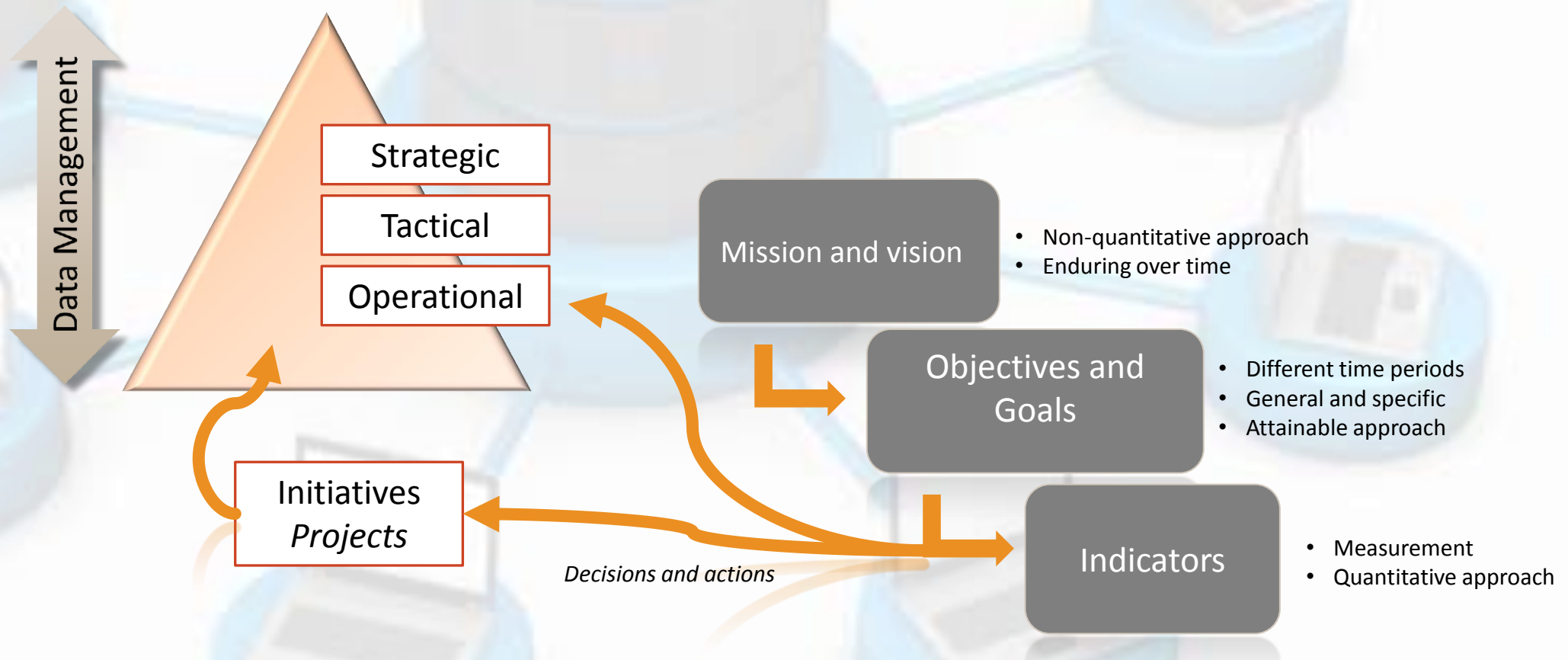
Business Intelligence is a strategic factor for a company or organisation, generating a potential competitive advantage, which is simply that of providing **privileged information to respond to business problems**: getting into new markets, promotions or offers of products, elimination of information islands, financial control, cost optimisation, production planning, customer profile analysis, profitability of a specific product, etc.



To implement this comprehensive Business Intelligence service, Ansbad uses a pyramidal process, including several sets of procedures, applications and technologies which enable collecting, debugging and turning data from transactional systems and unstructured information (internal and external to the company) into structured information for direct exploitation (*reporting, OLTP / OLAP analyses, alerts...*) or for its analysis and conversion into knowledge, thus providing backing for the decisions made on the business.

If the strategic plan to be implemented so requires, Ansbad will consider the use of external sources (*social networks, blogs, sensors, etc.*), their extraction and management by means of **Big Data**-based solutions. This will input added value to complement and reinforce your BI, giving you information of great strategic influence which provides a 360º view of the business and customers.

Ansbad proposes dividing the process into four phases, all complementary to each other, to guarantee optimum results in the strategic plan to be implemented in Business Intelligence, in line with the real needs of the business.



Phase 1: Strategy

This is the basis of the project and thus the first phase to be implemented. This phase is intended to establish and generate the strategic inputs with which the Strategic Plan to be consolidated in Business Intelligence will be built up.

This phase will be carried out along with the business, establishing the valid communication channels, with the profiles and roles of relevant users of the company, which provide the real strategic vision to be implemented.

Strategy

Tactics

Data
Management

Operational

The sub-phases to be carried out will be:

1. Generation along with the business :

- Business Strategy.
- Business Operations.
- IT Activity.

2. Agreeing on the business rules and standards based on the previous point, to make sure these are properly aligned with the company data.

3. Generating the metrics to define the indicators of the objectives established in point 1.

Strategy

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4. Defining the originating sources of the data, both internal (CRM, ERP, SCM, etc.) and external (*public, social networks, blogs, etc.*), should the case arise, which will supply the future BI technology platform.
5. Implementation and execution of the previous sub-phases.



Valid communication channels

Strategic Inputs Plan:
-Business Strategy .
-Business Operations.
-IT activity.

Defining rules and business regulations

Defining indicators business objectives

Defining originating sources Internal & external

Implementation and execution

Strategy

Tactics

Data Management

Operational

Phase 2: Tactics

This stage will define and develop the technology platform on which the Business Intelligence will be executed, as a DSS (*Decision Support Service*), in a **Data Warehouse**-based environment.

Its definition and development will be based on the inputs established in phase 1.

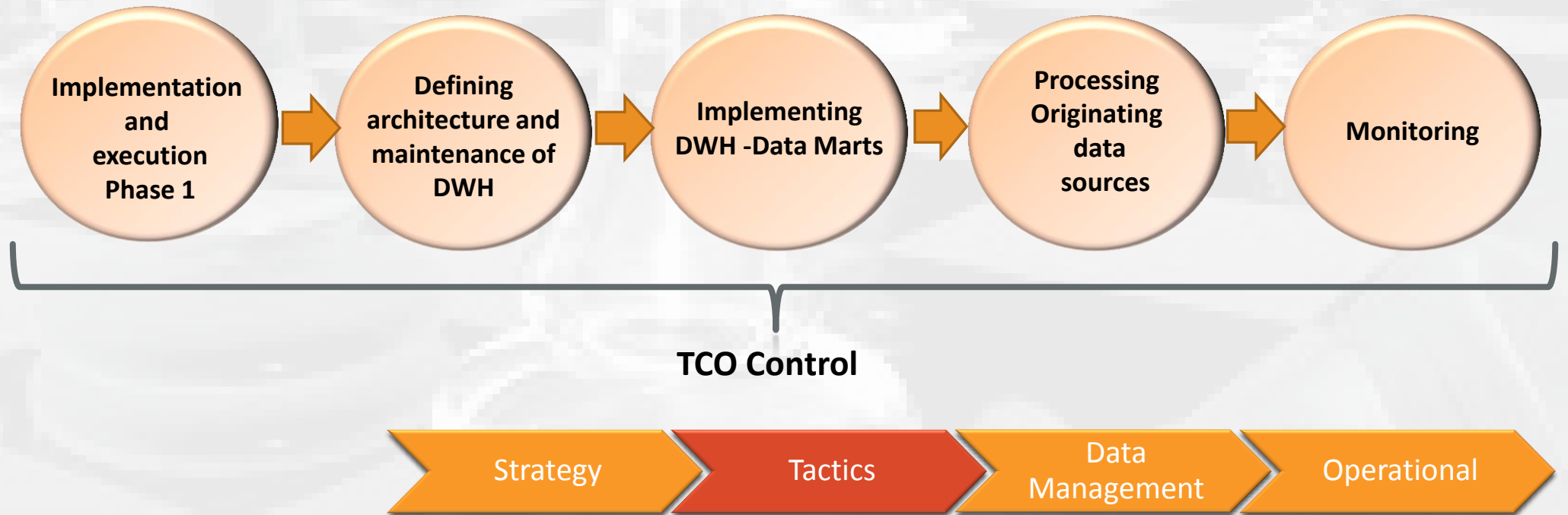


The sub-phases to be implemented are:

1. Strategic inputs, understanding the BI-oriented Business information requirements.
2. Defining the architecture and maintenance of the DWH (*Data Warehouse*).
3. Implementing DWH and/or Data Marts.
4. Processing Data from the different originating sources established in the preceding phase towards DWH.
5. Monitoring and supervising the operative activity of the DHW to ensure its optimum Business-oriented performance.



To implement this phase, Ansbad also makes use of a management approach, taking into account the TCO (Total Cost Ownership) assigned to creating the technology platform of the DWH, customising the project to suit the real needs of the business and controlling the expense.



Phase 3: Data Management:

This is the basis of the project along with phase 1, due to involving optimum management of the data on different levels, the essential basis for any Business Intelligence project.

The aim is to identify and supply the business's information needs based on the data in order to generate strategic value.



The sub-phases to be carried out are as follows:

- 1- Providing business logic in the data, i.e. for this to engage perfectly with the strategic plan and operationality of the business, previously established in the phase 1 inputs.
- 2- Application to the data of the business rules and standards defined in the strategic and operational plan in the previous point.
- 3- Application of Data Quality procedures to the internal and external originating sources of data, to detect and identify any wrong data, prior to its insertion as part of the company data.



Tasks to be performed in Data Quality:

- Detection of erroneous data.
- Profiling by means of an audit, with the delivery of the scorecard.
- Clean-up of any erroneous data according to the previously defined business rules.
- Coincidences: the phase in which the clean-up, standardising and rules for consolidation of the data are designed.
- Consolidation: phase for implementing the processes enhancing the quality of the data, defined in clean-up phase 3.

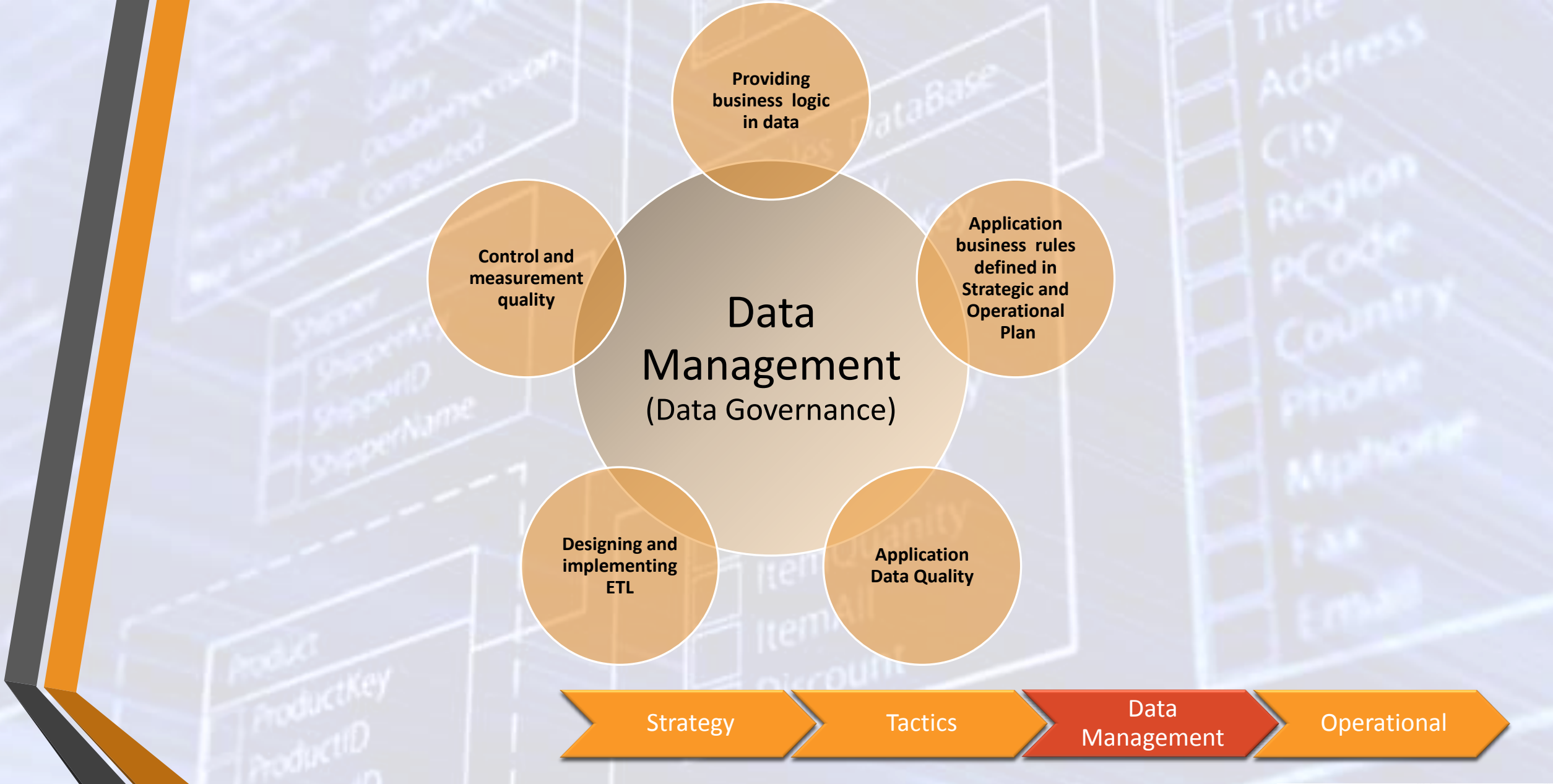
“Without a contrasted quality of the data, any BI project is bound to fail.”



4- Designing and implementing *ETL* (Extraction, Transformer, Load) processes for loading the data complying with the three previous points onto the Business Intelligence platform (DWH).

5- Control and measurement of the quality of the data, throughout the four main phases during the *life cycle* of the data.





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Phase 4: Operational -Business Analytics-

After reliable data both on quality and alignment with the business, as implemented in phase 3, has been obtained and this data has been loaded in the system, the following phase is to implement the analytical processes on this data, to draw out any strategically valuable information contained in the DWH information systems usually found in BI, developed in phase 2.



The business needs to answer the following questions:

- What is happening? – Descriptive-
- Why did it happen? – Diagnosis-
- What will happen if...? –Predictive-

The replies to these questions will help to:

- Improve services/products.
- Save time.
- Cut costs.
- Improve decision-making.
- Comply with the global indicators set in the Strategic Plan.



To carry out this phase 4 we will use specialised Data Mining procedures and tools reinforced with OLAP Cubes.

Why Data Mining?

This analysis procedure gives a chance to detect deeper behaviour patterns which, when complemented with the proper algorithms, will let us get not only a descriptive (*present*) view and diagnosis, but also a predictive (*future*) view, giving a more global outlook on the situation.



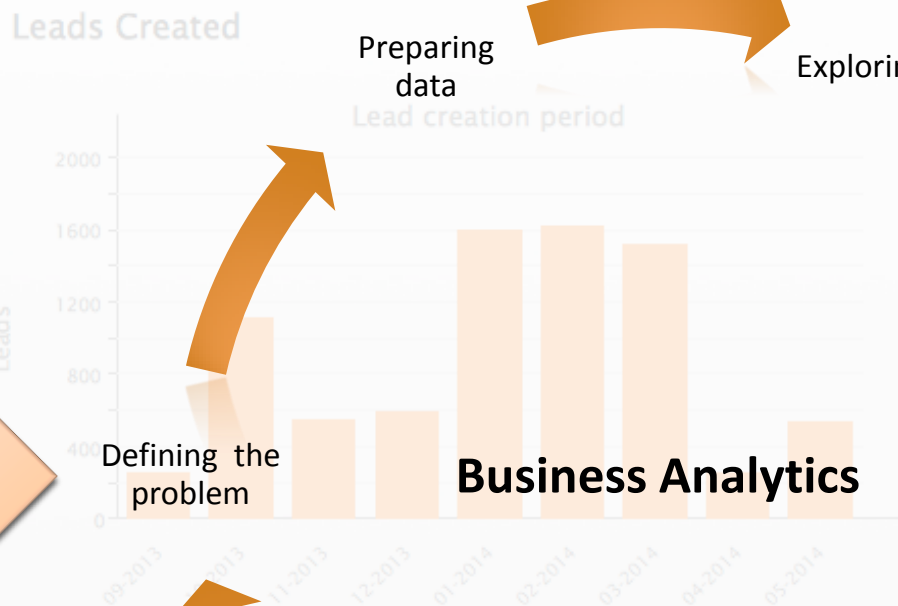
Sub-phases to be implemented in Data Mining

1. Defining the problem based on the objective.
2. Preparing the data.
3. Exploring the data.
4. Generating the predictive models.
5. Exploring and validating the predictive models.
6. Implementing and updating the models.

Lastly, the information will be displayed by means of specialised tools, depending on the company's needs, clearly and simply representing the strategic information, indicators and others, so that the final user can have a direct 360º view to back any decision-making.



Strategic Plan defined in DWH



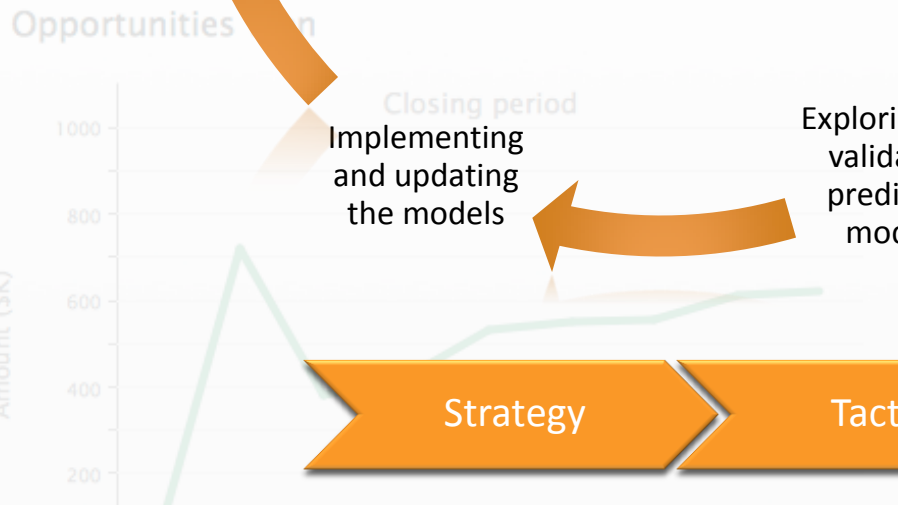
Defining the problem

Preparing data

Exploring data

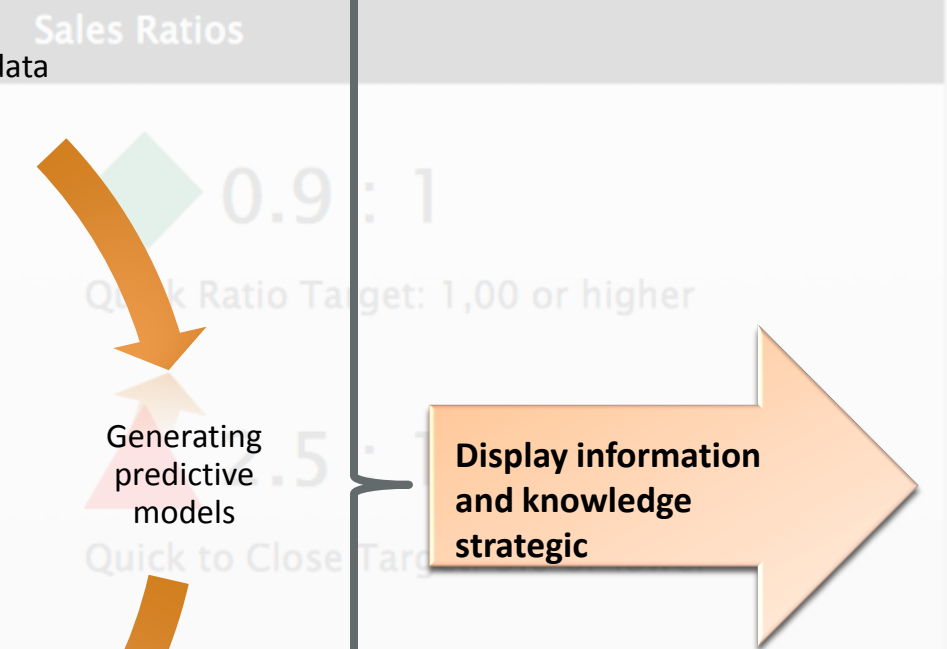
Business Analytics

Generating predictive models



Implementing and updating the models

Exploring and validating predictive models



Generating predictive models

Display information and knowledge strategic



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