

# Essentials in Business Intelligence

Last Number DWH007

## Introduction

After talking to my students and some people from industries, I still believe that **Business Intelligence and Business Analytics** is one of the most **misunderstood** subject in business decision taking.

I still believe that the **data warehouse concept** is essential for decision taking in a company and a deep understanding **is still missing**.

With this initiative I have asked my friends who have walked with me through the last 20 years on data warehousing, business intelligence and business analytics to write a very short essay about a specific topic on Business Intelligence. They put many years on industrial experiences in their essay and many years of university research. They travelled around the world and worked with international companies.

## Lesson 1: What is Business Intelligence?

- [What is information?](#)
- How is information represented?
- Where can i find information?
- What is the problem of vertical integration?
- What is a good definition of BI?
- What is the benefit of BI?

## Data Warehousing

- What is a data warehouse?
- What is a dw reference architecture?
- What are typical architectures?
- What is the difference between a data warehouse and an ERP system?
- How do i create a DW?
- What are critical success factors?
- What is a data mart
- what ia a data store
- what is a staging area?
- what is a data source?

## Multidimensionale Modelling

- How do i start?
- What is a KPI, what a key figure
- What is a dimension?
- What is a dimension attribute?
- What is a key attribute?
- What is a hierarchy?
- What is granularity?
- What are slowly changing dimensions?
- Currency Conversion
  - How to handle different currencies?
  - How to format a measure with a currency symbol?
- What is a DFM?

## How do I build a data warehouse?

- [What is a Star Schema](#)
- [What is a Snowflake Schema](#)
- [What is a Multi-Fact Schema | Fact Constallation Schema | Galaxy Schema](#)
- What is ETL?
- [What is a Data Source?](#) DONE
- [What is an Extractor?](#) WIP
- What is a Transformation?
- what does the loader do?
- How to implement incremental data load?
- How to implement SCD?
- How to handle currencies?

## How to use a data warehouse

- What are typical tools?
- what is ssbi?
- what is OLAP?
- what is a good dashboard design?
- what is date mining?
- what is the difference between DM and OLAP?
- how to i do data mining?
- [what is supervised learning?](#)
- what are critical success factors for data mining?
- ground truth of data mining?

## Trends in BI

- What is the difference between a DW and a Data lake?
- Who are the players in the market?

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