BUSINESS INTELLIGENCE AS A TOOL TO INCREASE MANAGEMENT EFFICIENCY

SLEZSKÁ UNIVERZITA
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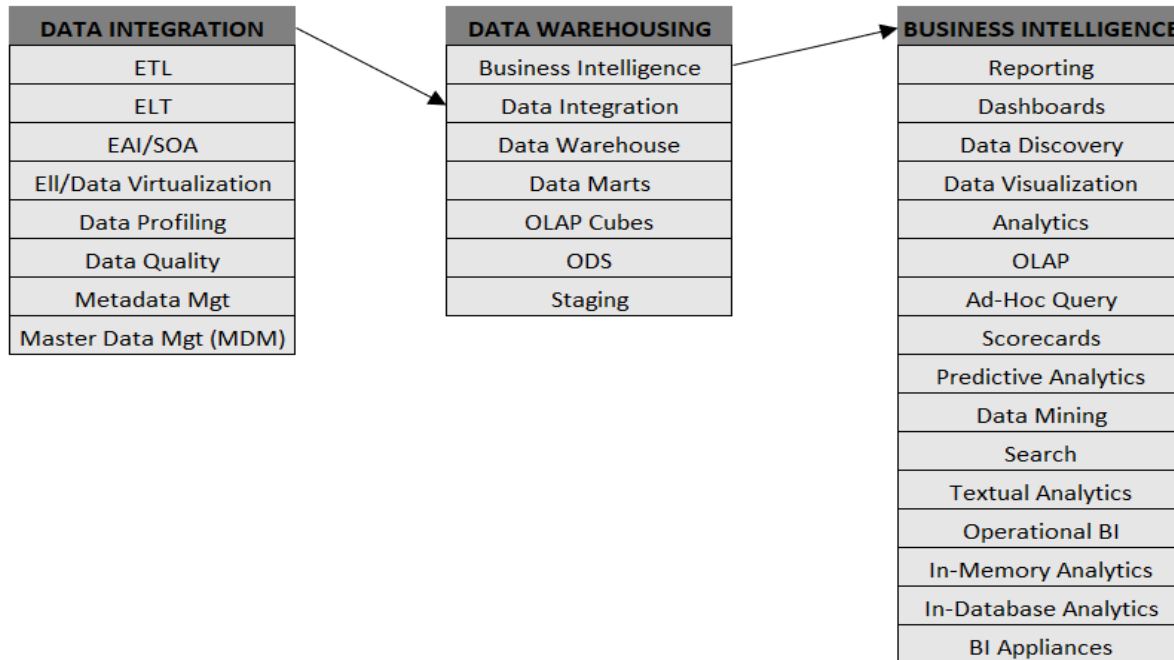Silesian University in Opava,
OPF in Karvina

Business Intelligence (BI)

"Without data, you are just another person with an opinion." – W. Edwards Deming

- Raw data
- **Quality data**
- Data warehouses
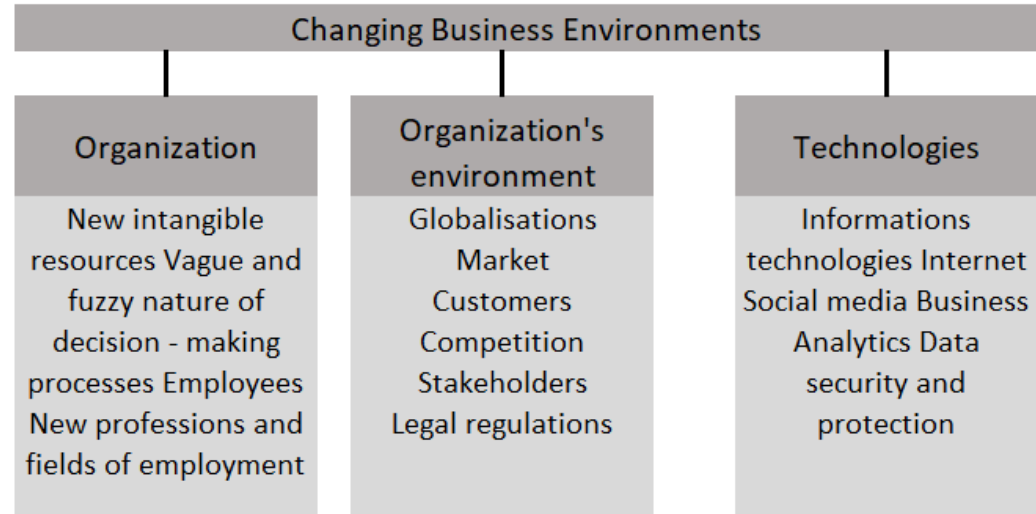- Data mining
- Make a good decision

DATA INTEGRATION
ETL
ELT
EAI/SOA
EII/Data Virtualization
Data Profiling
Data Quality
Metadata Mgt
Master Data Mgt (MDM)

DATA WAREHOUSING
Business Intelligence
Data Integration
Data Warehouse
Data Marts
OLAP Cubes
ODS
Staging

BUSINESS INTELLIGENCE
Reporting
Dashboards
Data Discovery
Data Visualization
Analytics
OLAP
Ad-Hoc Query
Scorecards
Predictive Analytics
Data Mining
Search
Textual Analytics
Operational BI
In-Memory Analytics
In-Database Analytics
BI Appliances

Knowledge Management

<u>Three main trends in the development</u>

a) the Japanese approach
b) the resource approach
c) the process approach

Changing Business Environment

- 21st century

- expectations of modern organizations

- growing informations flow

- increasing business efficiency

Changing Business Environments		
Organization	**Organization's environment**	**Technologies**
New intangible resources Vague and fuzzy nature of decision - making processes Employees New professions and fields of employment	Globalisations Market Customers Competition Stakeholders Legal regulations	Informations technologies Internet Social media Business Analytics Data security and protection

Olszak, 2020

Big data for Business Intelligence

Today is about 98% of all information stored in a digital form.

The data is increasing 40 times faster than the populations.

Oracle company (2014) internet is expanding at the rate of more than 40% from year to year. Today, it has more than 6 zettabytes of data and in 2020 its size, in all probability, will reach to 45 zettabytes.

In 2012, Google processed 24 petabytes of information per day.

Facebook every hour received about 10 million photographs for publication and about 3 billion likes and comments during the day (Mayer-Schoenberger & Cukier, 2013).
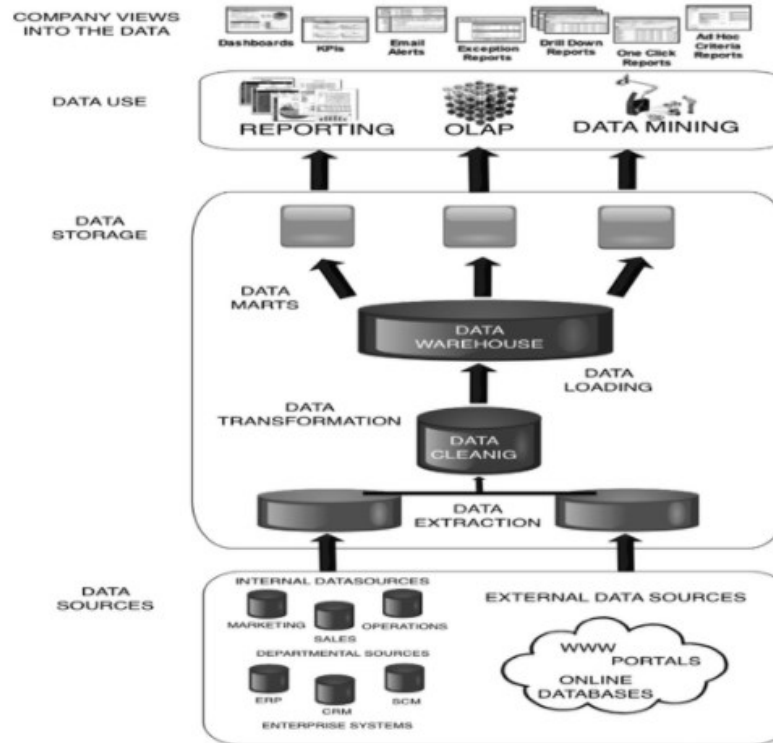
BI in Management of Organizations

Architecture of BI Systems

- Data warehouse

- Data extraction and
  transmission tools

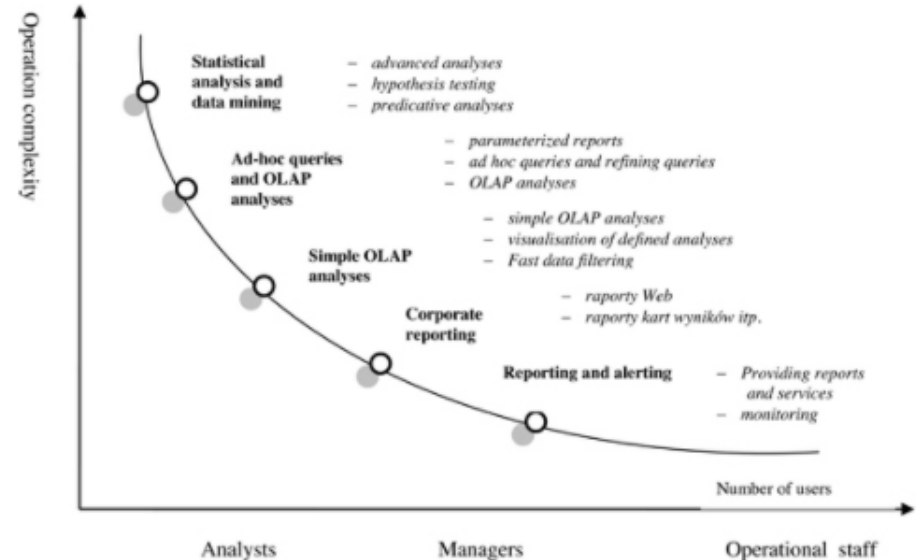- Data analysis and
  exploration tools

- Data visualization

Model of Business Intelligence Systems

- Corporate reporting

- Simple analysis

- Ad hoc queries and multidimensional analysis

- Statistical analysis and data mining

- Reporting and active alerting

Thank you for your attention