

# Business Intelligence & Business Process Management

Course description

# Business Intelligence

- The term **Business Intelligence (BI)** refers to technologies, applications and practices for the collection, integration, analysis, and presentation of business information.
- The purpose of Business Intelligence is to **support better business decision making.**
- Essentially, Business Intelligence systems are data-driven Decision Support Systems (DSS).

# Business Process Management

- Whether they involve distributing goods to customers, collaborating with suppliers or coordinating the efforts of employees, business processes are **the foundation on which rest a business's products, services and brands.**
- Business process management (BPM) is a methodology (with related tools) to ensure that those processes support a common set of goals and objectives.
- BPM is about improving processes and implementing systems that enable the improvement.
- **Processes cross organizational boundaries;** that is, they normally occur across or between organizational subunits. Processes are **generally independent of formal organizational structure.**

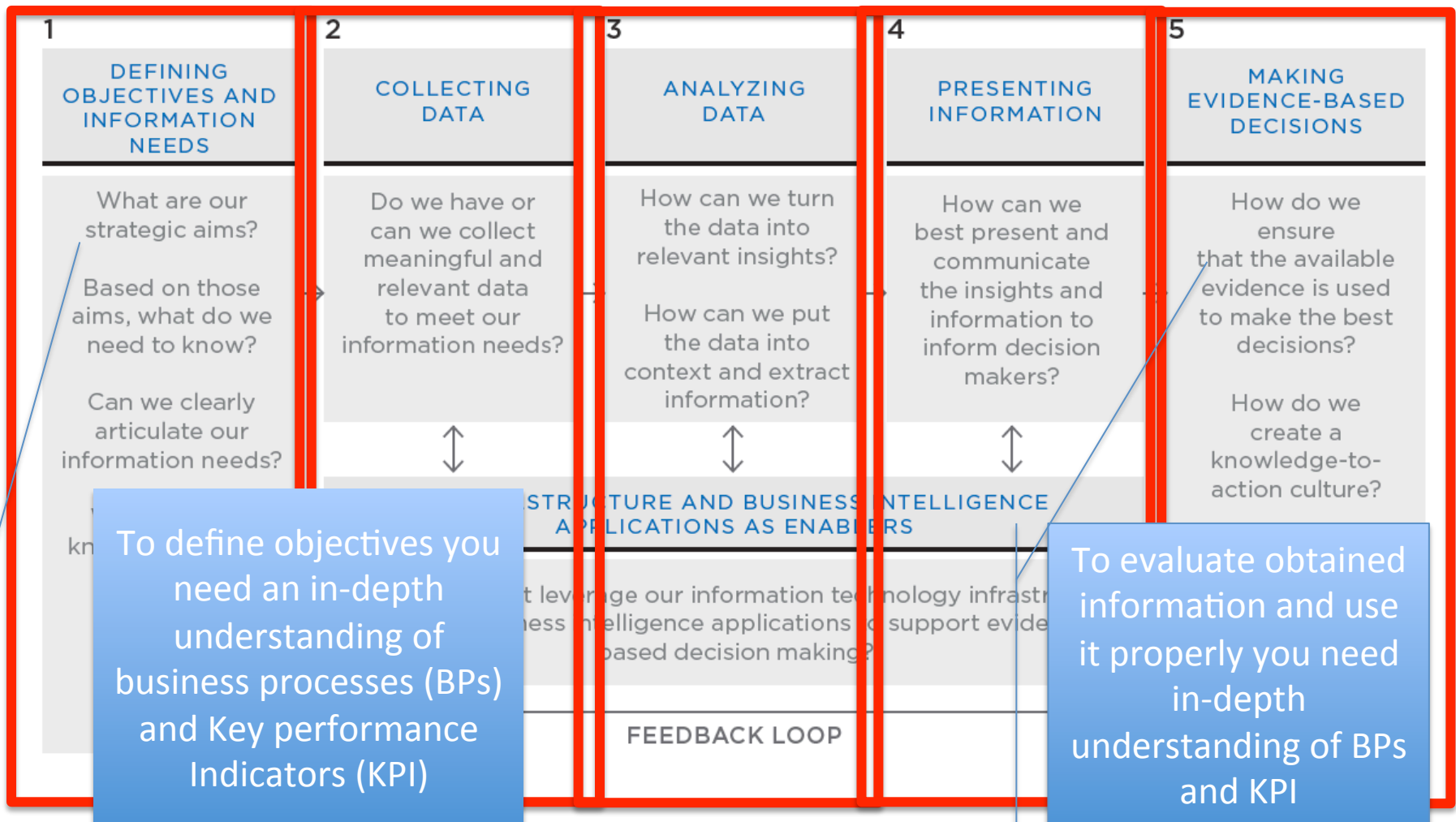
# Powerful technologies (BI and BPM) can work in tandem to drive successful operations

- To attain the process goals of efficiency, productivity, control, response and improvement, companies **first must understand their processes**, the needs and skills of the people who use them, the changes that affect them and which areas need improvement.
- To understand these things, they need **relevant information** and the ability to **analyze** and **apply** it.
- Business intelligence (BI) tools provide this information, its contexts and appropriate analytics to DESCRIBE data, PRESCRIBE actions and PREDICT outcomes.
- **BI delivers information that, when linked with BPM, gives people the input they require to improve business processes.**

# BI & BPM

- The ultimate goal of business process management is **performance management**: managing the performance of the organization and its business network by using all assets in ways that achieve a common set of goals and objectives.
- To connect processes with performance goals, companies need **business intelligence capabilities**, including metrics, key performance indicators (KPIs), executive dashboards and advanced reporting capabilities.
- Without BI, it is impossible to **correlate process outcomes to corporate performance goals or to apply operational metrics to continuous process improvement**.

# The BI workflow and its connections with BP management



# How is the course organized

- The course is in two parts:
  - PART A (Prof. Paola Velardi) Business Intelligence (6 CFU)
  - PART B (Prof. Paolo Bottoni) Business Process management (3 CFU)
  - Course material is available on <http://twiki.di.uniroma1.it/twiki/view/BI/WebHome>
  - Includes lecture slides, suggested readings, use cases, and links to software tools
  - Two google groups (subscribe to both)

# Learning objectives

- How to exploit ICT tools and methods to model and manage business processes,
- How to exploit ICT tools and methods to derive useful information from (large, heterogeneous) available data,
- With the ultimate goal of improving business performance
- Don't need any skill in programming, will get familiar with some Business Intelligence tool for data analytics and BP tools for Business Process and Workflow Management



# Exam

- 50% a written test
- 50% a project
- Good idea if you take a business use case and use it throughout the course for practical exercises