

## Business Process Modeling for developing Process Oriented IT Systems

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## Outline

- Background and motivations
- Short summary on process modelling
- Main concepts for analysing and modelling BPs
  - Intentional view of the enterprise
  - Organizational and operational view of the enterprise
  - IT support view of the enterprise
- Conclusion



## Background & Motivations

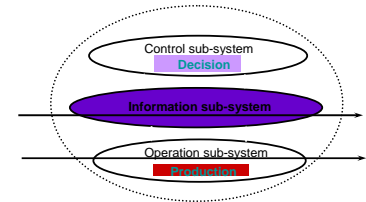
### Pressures for change

- ❖ Companies are facing pressures to improve their competitiveness
  - ❖ to better satisfy customer requirements, improve internal processes, modify the range of products and services they offer, ...
  - ❖ need for customer centric applications
- ❖ Organizations experience the effects of the integration and evolution of ICT.
  - ❖ e-business, deregulation, mergers and acquisitions, business process automation, globalization.
- ❖ ICT is positioned as a strategic resource
- ❖ The key word is integration : integration of data (DBMS, distributed DBMS), of applications (WFMS, EAI) and finally of business processes (BPMmanagement).



### Relationships between organization and its IT systems

❖ At 1977, J. L. Lemoigne proposed the "Operation-Information-Decision" (OID) model that set the articulation of the organization around three systems: OS, IS and DS.

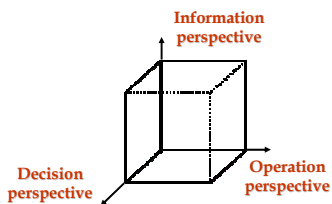


❖ The major contribution of the OID model was to provide the symmetry on the coupling of OS and IS on one side and DS and IS on the other side.



### Relationships between organization and its IT systems

- ❖ Today, an IS does not exist only as an image of the real world but sometimes it could be the unique reality.
- ❖ It seems more appropriate to consider the organization as a whole system with its multiple facets: its strategy, its structure and its information systems.



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### Pressures for change

- ❖ The information technology and the social structures inform and shape each other.
- ❖ Information technologies and information systems became an **integrated** aspect of organizations.
- ❖ Systems should be **continuously adapted** to changing business practices and needs.
- ❖ Enterprises that can manage complexity and can respond to rapid change in an informed manner can gain a competitive advantage
- ❖ The **efficient communication** between enterprise's actors and managers on a side, requirement engineers and IT specialists on other side, became more and more critical.



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### Modeling formalisms and needs

- ❖ Enterprise modeling refers to a collection of conceptual modeling techniques for describing different facets of the *organizational domain* :
  - **operational** (IS),
  - **organizational** (business processes, actors, roles, flow of information etc), and
  - **teleological** (purposes) considerations
- ❖ The study of the literature shows also that existing *process modeling formalisms* can be classified into three categories: *activity, product and decision oriented*.
- ❖ Business processes can be roughly classified into two categories:
  - Well structured and repetitive processes
  - Ill structured processes



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### ... analyzing and modeling BPs

A conceptual modeling framework offering :

- ❖ the rigor necessary for modeling **well-defined** business processes,
- ❖ the flexibility and adaptability required for **ill-defined** or for **ad-hoc** business processes.,
- ❖ the set of concepts useful to represent the **three views** of the enterprise:

- Intentional view
- Organizational and operational view
- IT support view



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