

Process-driven Information Systems



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Lectures

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Pisa, September-December 2016. Wednesday 10.30-13.30, Friday 11.30-13.30 Room SI6;

Course Schedule and Materials

- ✓ The course will take about 60 hours in total
- ✓ Materials:
 - <http://www.iet.unipi.it/m.cimino/wdis>
 - user: *****
 - password: *****
- ✓ Student's Tweets (anonymous "on the spot" comments):
 - <http://www.iet.unipi.it/m.cimino/note/>
- ✓ Prerequisites (not strict):
 - BPMN language, Scenario-based simulation
 - (*Supply Chain and Operations Management*)
 - <http://www.iet.unipi.it/m.cimino/scom/scom-lectures.pdf>

- ✓ Exam: the oral presentation of the **project** contribute 80% (24 scores) and the **written/oral test** contribute 20% (6 scores) to the total exam score.
- ✓ Each project team comprises five students, working on a real-world case, delivered by a public/private company during interviews and data collection activities.
- ✓ The written/oral test is based on slides. There are books and other material to consult in the project time and for specific tasks.
- ✓ Overall time to spend: the course is 6 ECTS credits (CFU), i.e., 150h per student (60h in-class and 90h out-class). Devote to the project 80h per student (20h of which will be spent in-class).
- ✓ Use the Journal of Activities (JoA) for daily project activities reporting. Students will first study the business process (BP) *as is*, and then will propose improvements (*to be* model).
- ✓ There are 10 activity types in the project: (1) team management, (2) as-is BP assessment, (3) as-is BP modeling, (4) as-is BP discovery, (5) as-is BP

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conformance, (6) as-is BP simulation, (7) to-be BP assessment, (8) to-be BP modeling, (9) to-be-BP simulation, (10) to-be BP prototyping.

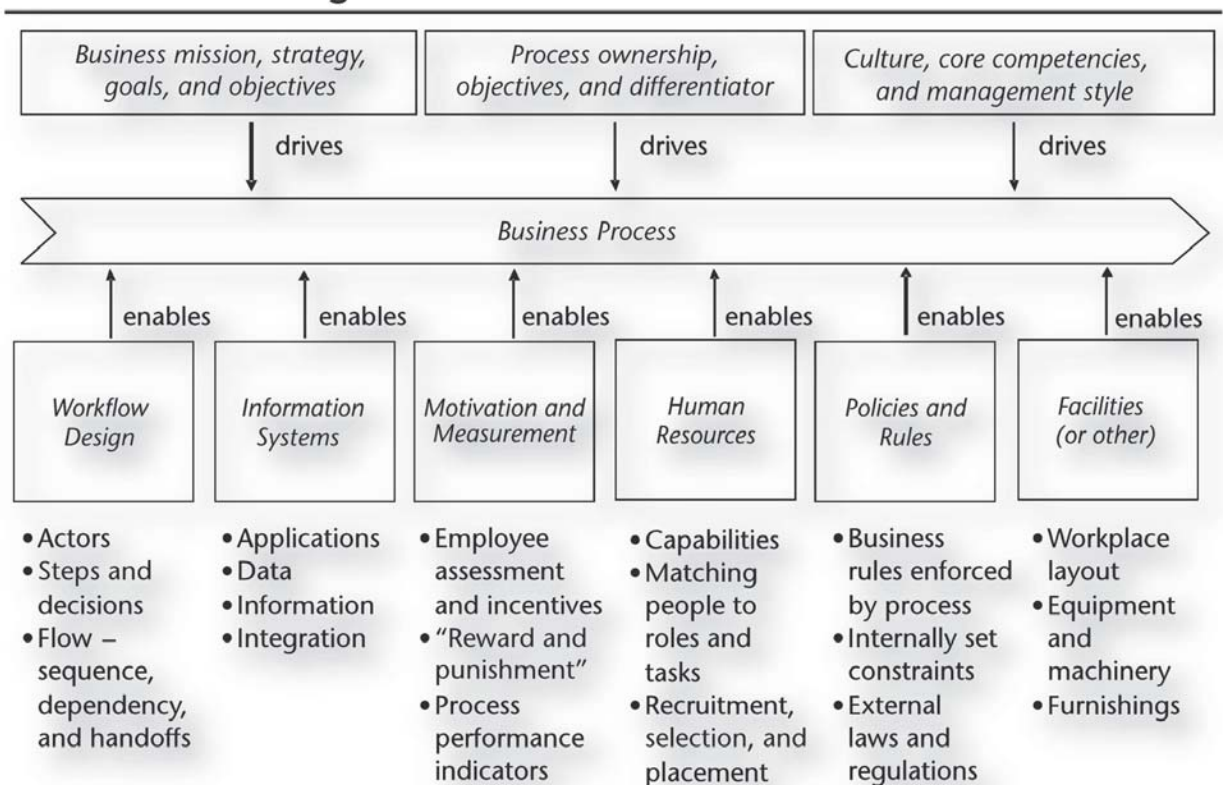
- ✓ *team management* is to administer and coordinate the group to perform tasks, involving teamwork, communication, objective setting.
- ✓ *prototyping* is the creation of a prototype through a business process management suite.
- ✓ *simulation* is the use of a tool for measuring specific performance indicators.
- ✓ *discovery* and *conformance* are process mining methods to create a workflow model and to assess whether people are aligned to it .
- ✓ *modeling* is the creation of a handoff, service or task diagram, with the related data objects, the semi-formal textual notation, as well as the determination of scenarios.
- ✓ *assessment* is any other activity, such as establish process context, scope and goal, understand enablers.

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- ✓ To be successful, an improvement initiative should be carried out under different perspectives (enablers).
- ✓ Six important enablers are: *workflow design, information systems, motivation and measurement, human resources, policies and rules, facilities design*
- ✓ A *process enabler* is a factor that can be adjusted to impact process performance process does not work optimally if one or more enablers are not fine.
- ✓ For example, workflow design and information systems have little impact with untrained personnel (human resources).
- ✓ The course will focus on *workflow design* and *information systems*

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Workflow Modeling



A process in context with constraints and enablers.