What is a Project?

Irene Kouskoumvekaki,
Associate Professor
Today’s Programme

2011: June 2011 (Mon 6th - Mon 27th)

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<td>1.3 June 8</td>
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Programme June 2011

Lectures and exercises will take place from 9.00 to 16.00 in room 016, building 210.

Classes will be a mixture of lectures and group/individual work.

Please note: The program may change slightly along the way. The exact content of powerpoint slides and handouts may change up to the last minute.

June 6

<table>
<thead>
<tr>
<th>9.00 - 12.00</th>
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<tbody>
<tr>
<td>Lecture 1: Introduction to the course and general overview</td>
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<td>Lecture 2: What is a Project? Definition, Standards and Norms</td>
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<td>Teacher: Irene Kouskoumvakis</td>
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<tr>
<td>Lecture 3: Goal Directed Project Management, part 1: Project Foundation</td>
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<tr>
<td>Teacher: Irene Kouskoumvakis</td>
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CBS, Department of Systems Biology
Small exercise:

*Take a post-it and write down one task that IS a project and one task that IS NOT a project*
What is a project?

from latin: *projectum* – something that comes before everything else happens

• A project is in contrast to business as usual

• A project is something that changes a situation
Examples of projects

• To bake a cake
• To organize a party
• To build a bridge
• To find a new employee
• To reduce cost in an organisation
• To develop a new product
• To write a scientific paper
• To start a new company
Operation and Project

Operation

Project

Very unfamiliar
Less unfamiliar
Modified task (Similar to previous task)
Repetitive tasks
Ongoing operation

One-time shot
Increased-value
Increased complexity
Increased change
Greater degree of knowledge
Increased costs
Increased duration
Increased number of tasks
What is a project? (the bright side)

- Is a unique task
- Is designed to attain a specific result
- Requires a variety of resources
- Is limited in time
What is a project? (the dark side)

• Involves new and unknown tasks

• Leads to changes in people’s daily work or living conditions

• Might be difficult to find the right people at the right time, and if they are available, they have different backgrounds and are not used to working together

• Is subject to a strict deadline
Bake a cake for my boyfriend’s birthday party
How to start?

• Why do I want to bake a cake?

• What type of cake do I want to bake?

• When shall it be ready?

• Who else is involved/has a saying?

• When shall I do it and how long will it take?
Project Foundation

- Deciding the purpose of the project
- Deciding the goals of the project
- Stakeholder analysis
- Principle responsibility chart
How to proceed?

- What exactly should be accomplished

- How it should be accomplished
Project planning

- Global planning
  - What should be accomplished (milestone planning)
- Detail planning
  - How it should be accomplished (activity planning)
Milestone planning

- **M0**: Project starts
- **M1**: Ingredients are purchased
- **M2**: Cake is made
- **M3**: Frosting is made
- **M4**: Integration is performed
Activity planning (Work Breakdown Structure – WBS)

Birthday cake

- Cake is made
  - Look in cake recipe book
  - Measure/mix cake ingreds
  - Cool cake
  - Bake cake

- Frosting is made
  - Look in frosting recipe book
  - Measure/mix frosting ingreds

- Ingredients are purchased
  - Drive to store
  - Drive back from store
  - Buy decorations

- Integration is performed
  - Put decorations on cake
  - Slather frosting on cake
Result paths

1. Start cake
2. Look in cake recipe book
3. Drive to store
4. Buy decorations
5. Measure/mix cake ingredients
6. Measure/mix frosting ingredients
7. Bake cake
8. Drive back from store
9. Cool cake
10. Slather frosting on cake
11. Put decorations on cake
12. Complete cake
Critical path

- Start cake
- Look in cake recipe book
- Bake cake
- Cool cake
- Slather frosting on cake
- Put decorations on cake
- Complete cake

Critical Path
- Measure/mix frosting ingredients
- Measure/mix cake ingredients
- Drive back from store
- Buy decorations
- Drive to store
# Responsibility chart with time scheduling

<table>
<thead>
<tr>
<th>Start</th>
<th>Hour</th>
<th>End</th>
<th>Me</th>
<th>My flatmate</th>
<th>My mom</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/11</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>1/11</td>
<td>M1</td>
<td>X/P</td>
<td>T</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>1/11</td>
<td>M2</td>
<td>X/P</td>
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<td></td>
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<td>M3</td>
<td>X/P</td>
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<td></td>
<td>1/11</td>
<td>M4</td>
<td>X/P</td>
<td>T</td>
<td>A</td>
</tr>
</tbody>
</table>
Activity responsibility chart with time scheduling

<table>
<thead>
<tr>
<th>D</th>
<th>Task Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Birthday Cake Project</td>
</tr>
<tr>
<td>2</td>
<td>Start cake</td>
</tr>
<tr>
<td>3</td>
<td>Look in frosting recipe book</td>
</tr>
<tr>
<td>4</td>
<td>Measure/mix frosting ingredients</td>
</tr>
<tr>
<td>5</td>
<td>Look in cake recipe book</td>
</tr>
<tr>
<td>6</td>
<td>Measure/mix cake ingredients</td>
</tr>
<tr>
<td>7</td>
<td>Bake cake</td>
</tr>
<tr>
<td>8</td>
<td>Cool cake</td>
</tr>
<tr>
<td>9</td>
<td>Drive to store</td>
</tr>
<tr>
<td>10</td>
<td>Buy decorations</td>
</tr>
<tr>
<td>11</td>
<td>Drive back from store</td>
</tr>
<tr>
<td>12</td>
<td>Slather frosting on cake</td>
</tr>
<tr>
<td>13</td>
<td>Put decorations on cake</td>
</tr>
<tr>
<td>14</td>
<td>Project buffer</td>
</tr>
<tr>
<td>15</td>
<td>Complete cake</td>
</tr>
</tbody>
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Critical Path
**International Project Management Organizations**

**PMI:** Project Management Institute  
**ISO:** International Organization for Standardization  
**IPMA:** International Project Management Association  
**PRINCE2:** Projects in Controlled Environments  
**CMMI:** Capability Maturity Module Integration  
**APM:** Association of Project Management
International Project Management Organizations

PMI: PMBOK (Project Management Body of Knowledge)

ISO: ISO10006

IPMA: ICB (IPMA Competence Baseline)

PRINCE2: PRINCE2 manual
Project Definition according to PMI

A project is a temporary endeavour undertaken to create a unique product or service. Temporary means that every project has a definite beginning and end. Unique means that the product or service is different in some distinguishing way from all the other products or services.
Project Management Definition according to PMI

Project Management is the application of knowledge, skills, tools, and techniques to project activities to meet project requirements.
Goal Directed Project Management

- GDPM was introduced in the ’80 by a group of project management consultants
- Light-touch and non-bureaucratic approach that breaks down the complexities of project management using simple, practical techniques
- Can be understood and adopted by people who are not professional project managers
- Is completely complementary and can be used to increase the effectiveness of recognised methodologies such as PRINCE2, APM and PMI
## Stage Divisions

<table>
<thead>
<tr>
<th>Stage Divisions</th>
<th>PMI</th>
<th>GDPM</th>
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<tr>
<td>Opportunity identification</td>
<td>Initiating</td>
<td>Foundation</td>
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<tr>
<td>Planning and specification stage</td>
<td>Planning</td>
<td>Planning</td>
</tr>
<tr>
<td>Execution, control and monitoring stage</td>
<td>Execution Monitoring and Controlling</td>
<td>Organizing Controlling</td>
</tr>
<tr>
<td>Product handover and project evaluation</td>
<td>Closing</td>
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<tr>
<td>Operations and maintenance stage</td>
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PSO Projects

Development of
- People
- System
- Organization
PSO projects

- Purely specialist project
- Purely process-oriented project
General Project *phases*

- **P1**: Establish foundation for the project
- **P2**: Global plan & organization
- **P3**: Detailed plan & Organization (Execution)
- **P4**: Control project work
IDEA

Finding Problems

Idea to Subject

Goal Searching

Goal Directed

Solving Problems

Subject to Object

(P1-P2)

(P3-P4)
Foundation of the project

• Deciding the purpose of the project

• Stakeholder analysis

• The project mandate

• Principle responsibility chart
Global planning of the project

• Achieve a common understanding of the task to be resolved

• Obtain an overview of the work to be carried out

• Lay the foundation for allocating and committing resources

• Lay the foundation for a suitable organization of work

• Lay the foundation for monitoring and control
**Global organization of the project**

- Clarification of all roles and responsibilities
- Defining decision-making responsibilities
- Communicating effectively
- Flexibility
**Detail planning and organization**

- Important clarification process that brings attention to all important matters regarding the plan

- Determine how to reach the milestones within the time limits and the resources allocated

- Organize work around the decided activities
Control of the project

1. Reporting progress in relation to the plan
2. Analysing variance between progress and plan
3. Deciding which actions should be taken to eliminate variances
4. Taking action
Questions?