



Global Information Systems

The Case Study: Development of an Asian-European Business Portal

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The Open Unified Process – Disciplines

- Architecture
 - Architecture Notebook
- Configuration and Change Management
- Development
 - Design
 - Build
 - Developer Test
 - Implementation
- Project Management
 - Iteration Plan
 - **Project Plan**
 - Work Items List
 - **Risk List**
- Requirements
 - Supporting Requirements Specification
 - Vision
 - Use Case
 - Glossary
 - Use-Case Model
- Test
 - Test Case
 - Test Log
 - Test Script
- *Roles*
- *Artefacts / Support*



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The Open Unified Process – Disciplines

Development Model,
Development
Environment

Standards,
Guidelines

Culture Analysis

- Architecture
 - Architecture Notebook
- Configuration and Change Management
- Development
 - Design
 - Build
 - Developer
 - Implementation
- Project Management
 - Iteration Plan
 - **Project Plan**
 - Work Items List
 - **Risk List**

Processes:
Coordination,
Communication, Risk

Staffing

Development
Model

GUI Design,
Standards

- Requirements
 - Supporting Requirements Specification
 - Vision
 - Use Case
 - Glossary
 - Use-Case Model
- Test
 - Test Case
 - Test Log
 - Test Script
- Roles
- Artefacts / Support

GUI Analysis

Test

Culture Models

Support tools

The Case Study

- After your graduation, you have founded and established a small R&D company in the field of Information Management and Software Engineering. Your focus is the development of web applications. The company is still small with 5 staff members with different responsibilities and competencies. You have decided that participating in European projects as a new field of business for your company.
- After checking the current calls for tenders by the European Commission, you have found an interesting announcement which seems to fit to your competencies and portfolio.



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Task

- ❏ The call for tenders asks for proposals regarding the development of a European portal / business network for research and business cooperation with a certain region. The following functions and conditions are given.
- ❏ The portal shall **improve innovation and cooperation** between researchers in the region selected and Europe. It shall improve common research projects, publication and experience exchange.
- ❏ The portal should serve as an **inter-organizational knowledge management system**, including functions to find, retrieve, distribute, publish, and evaluate knowledge. This covers both, documents as well as human expertise. The most important aspect is networking.



(Potential) Functions

- ❏ **White pages:** Search for researchers and potential cooperation partners by topic, interest, location, expertise or organization. This should be based on a database of people and ontologies for topics and expertise.
- ❏ The **Resource archive** shall contain documents, links, and any kind of resources on research activities. The resources 1) shall be related to the aforementioned ontologies and 2) can be tagged by the participants leading to a folksonomy. Additionally, people shall be enabled to comment and annotate resources for public and private use.
- ❏ **Tagging:** People and resources can be marked by tags. The tags should be presented in different formats (tag clouds, lists, etc.)
- ❏ **Experience exchange:** People shall be able to exchange their experiences about their research field but also about their cooperation.



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Functions

- ❏ **Culture database:** One of the main aspects is the development of a database of cultures and cultural aspects. This covers the database design, implementation and providing initial countries for 1 European and 1 local country. The database shall be extensible to share experiences about own / other cultures.
- ❏ The portal should be available in **different languages**. In the initial version, English, French, Chinese and Japanese should be covered. The design should enable people to add their own version of the portal (e.g., in Korean or Finnish)
- ❏ The design should be **adaptable** – initially, designs should be developed for the countries of the initial languages.



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Functions

- You are free
 - to choose countries (both for Europe and Asia)
 - to focus on functions which you consider meaningful
 - to convince the Commission of necessary changes



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Evaluation criteria by the Commission

- ▣ Clarity and feasibility of the approach
- ▣ Project plan: schedule and staff
- ▣ Expertise, specifically on cultural aspects
- ▣ Business model (open source, re-use, ...)
- ▣ Cost
- ▣ Innovation: Use of new technologies



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Process: Initial Proposal Stage

- For the first stage, you will have to develop an initial proposal to meet the criteria of the call showing your main ideas regarding management and development. For this stage, you will have to elaborate an initial project outline which should cover at least the following aspects:
- Phases:** Which phases are necessary for the full project (e.g., requirement analysis, design and development), how will they be realized.
- Design ideas:** The proposal should clearly show which main ideas drive your concept. This is not yet a full design but it should show what to expect from your solution.
- Partners:** You will have to decide whether you can do this development on your own or whether you will include partners. Two reasons for this are rather obvious: 1) You will need knowledge on regional languages and cultures; 2) The cost of the developed portal is a main evaluation criterion.
- Cost estimation:** Based on your phases and partners, you should develop a cost estimation.
- Other aspects which give you a competitive advantage to your competitors should be shown.
- Describe who will do which parts and how these parts are interrelated



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Process: Final report Stage

- ❏ **Process plan:** You should clearly describe all design and development processes necessary for a complete implementation. This plan could be based on the Open Unified Process.
- ❏ **Competence profile.** Describe who is involved in developing the product and which competences those stakeholders should have.
- ❏ **Communication plan:** A communication plan should clearly show how you handle communication 1) between partners (in case you cooperate with other organizations) and 2) between test groups when testing your prototype.
- ❏ **Design:** You should clearly show the design of the portal meaning both functional and user interface aspects. This also covers issues like internationalization and localization, respectively opportunities to extend the initial solution. All design decision must be clearly explained.
- ❏ **Cultural analysis:** You should explain main aspects of the initial cultures addressed.
- ❏ **Project planning:** This should refine your initial planning, including the financial planning.
- ❏ **Prototype:** An initial prototype should be developed to show that you are able to implement your ideas.
- ❏ **Other aspects** clarifying your approach should be addressed when necessary.



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Case study process

Both reports mandatory

- **Initial report:** Concept and initial plan
- **Final report:** Final project plan



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Schedule

- 16.09.2013: Group building
- 23.09.2013: Preparing the proposal and ideas
 - Presentation of ideas
- 10.2013: Elaboration of the solutions
- Tba: Final presentations, discussion, de-briefing



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Process: Proposal Stage

- 09.09.: Start
 - Define groups
 - Select topic / region
- 16.09.: Concept
 - Distribute workload (process, design, ...)
 - Select region, get information on cultural aspects
 - Develop 5 use cases
- 23.09.: Concept (2)
 - Develop Concept & Ideas
 - Prepare short presentation
 - Present!



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Process: Finalization Stage

- 24.09. – ca. 27.10.: Refinement
 - Culture analysis
 - Adaptation mechanisms
 - Design
 - (Prototype Implementation)

- Tba: Final Presentation
 - 10 minutes presentation
 - Slides
 - Prototype
 - Special features
 - 5 minutes Q&A



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Grading

- The grade for the case study is calculated as following:
 - 30 % Proposal
 - 70 % Final concept / prototype
- The prototype will be graded based on the following criteria:
 - **Completeness:** The prototype covers the main areas of the concept
 - **Methodology:** The prototype is based on proven, validated concepts and takes the main concepts from the lecture into account.
 - **Clarity:** The design and development decisions are clearly explained.
 - **Creativity:** The prototype includes innovative functions and new ideas / technologies / approaches
 - **Documentation:** The concepts and prototypes are well documented and described
 - **Presentation:** The concepts are presented in an appropriate way.



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Some remarks for clarification

- ❏ The call is clearly directed at creating cooperations between innovators
- ❏ Think which areas of innovation could be exciting and have potentials for success (e.g. health monitoring, shipping, ...)
- ❏ Do not try to re-invent linkedin / academia.edu / facebook...make the idea and portal specific!
- ❏ Think deeply about the target group – how to attract them, which benefits will they receive, ...
- ❏ Distribute work but connect your findings weekly – otherwise your solution will consist of incompatible parts
- ❏ Refer to concepts and methods from the lecture – it will help you to quicker develop solutions



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Important notes

- Register for one group in Korppi
- If you decide not to do the course, unregister until 24.09.2013
- Exam: 50%, Case Study 50%
 - Both have to be passed



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Now...

- Please find a group of 4-6 people
- Sit down and plan your case study
- Questions can be answered any time

- Have Fun!!!



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