GI-INDEED

Geographic Information in the Implementation of Netbased Distance Education for Environmental Decisionmaking

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Content

- Background
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- Organisation
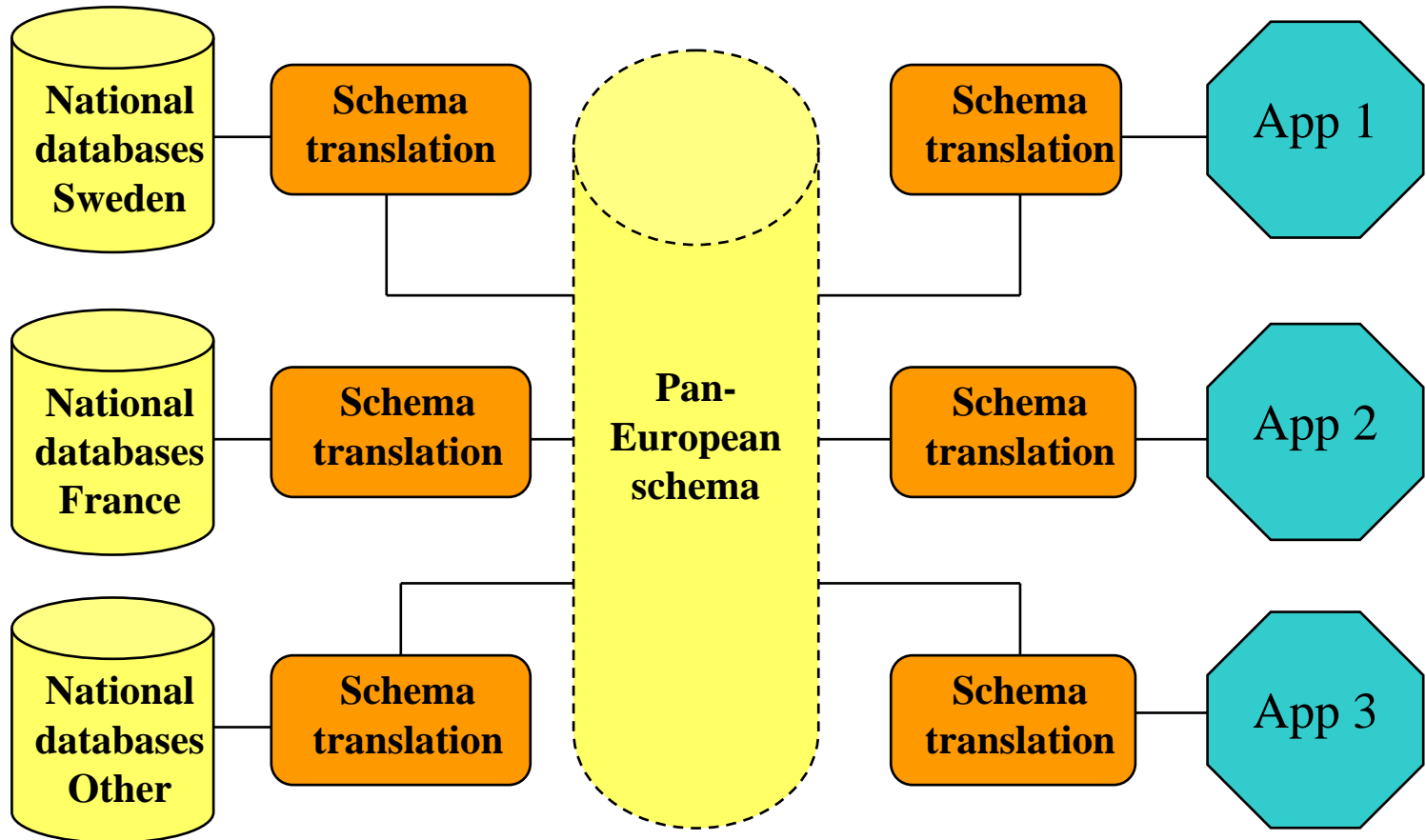- Current status (March 2007)

Background

- Implementation of EU environmental directives
  - Water framework directive, habitat directive etc
  - INSPIRE (legal framework for sharing and dissemination of environmental data)
- Training required
- ECDL in GIS

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Previous work

- NATURE-GIS
  - Guidelines for handling information about protected areas
- GI-CLAN
  - Network for Coastal Zone Management
- Netbased learning
  - Off-the-shelf ICT technology
  - Learning Management Systems (LMS)
  - Tools and didactic development

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EuroSpec harmonisation

National databases Sweden — Schema translation — Pan-European schema — Schema translation — App 1

National databases France — Schema translation — Pan-European schema — Schema translation — App 2

National databases Other — Schema translation — Pan-European schema — Schema translation — App 3

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New Open Save Print Find Hotlist Back Reload Forward Home Active Tile Cascade

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hemnet.se I samarbete med: **DN.BOSTAD**

Nature-GIS Norrbotten

▸ Åter ▸

HusmanHagberg

Kommun:	Luleå
Område:	Alviksträsk
Adress:	Alviksträsk 365
Boendeform:	Fritidshus
Rum:	2
Sovrum:	1
Boarea:	36 kvm
Biarea:	18 kvm
Tomtarea:	2509 kvm
Pris:	230 000 :- eller enligt ö.k
Ref.Nr.:	33002142

Visa fler bilder **Visa på karta**

Beskrivning
Fritidshusställe i Alviksträsk. Storstuga, sovstuga och förråd.Vatten från grannen, bastu, öppenspis.

INTERIÖR
Antal rum   2 varav 1 sovrum
Boarea   36 m²
Biarea   18 m²
Rumsbeskrivn. Stora stugan:

Allrum med trägolv, paneltak samt braskamin.
Kök med spis, kyl/frys.
Ett st sovrum .
Altan under tak.

Sovstugan:

Hall entré.
Toalett med separett. Varmvattenberedare.
Bastu med dusch.
Ett st sovrum.

Förrådsbyggnad. Vatten från grannen. Båtplats vid sjön.
Utrustning kök Spis, kyl och frys.

BYGGNAD
Byggnadstyp   1-plans fritidshus

Kartfunktion

☐ Zooma in
☐ Zooma ut
☐ Panorera
☐ Identifiera

Kartor

☑ Naturskydd
☑ Satellitbild
☐ Gula sidorna
☐ Bakgrundskarta
☐ Ekonomisk karta

Kartlager

☐ bg_municipal
☐ bg_lake
☐ bg_sea
☐ bg_island_sea
☐ bg_city
☐ bg_railway
☐ bg_road
☑ prot_naturereserve
☑ prot_shore
☑ prot_biotop

Bålingeberget

Luleå kommun Fritid

Bålingeberget

FRILUFTSLIV

Bålingeberget är ett lättillgängligt naturreservat som visar på lämningar från avsmältningen av landisen med stora fält av klappersten, strandvallar som anger havets olika nivåer, grottor och långa sammanhängande erosionskanter som bildats.

Objectives

- Develop tools for vocational training in fields related to
  - INSPIRE
  - Management of protected areas
  - Management of coastal zones
- The tools shall work in different contexts
- Contribute to European recognition of vocational training (Copenhagen declaration)

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Training for

- National environmental agencies responsible for implementing the legislations
- Local authorities that will use information services
- Private companies (forestry, mining) that requires environmental information for their decisions
- Citizens, special interest groups
- Training & education providers

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Main outcomes

- Survey of training requirements among professionals and training providers
- Training material
- Pilot tests of products at training institutes
- Web based course selector

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Timing and budget

- 2 year project
- Start October 1st 2005
- Budget: 395 000 €
- 75% funded by Leonardo da Vinci

Partners

- Universities: University of Gävle (SE), University of West Hungary (HU), University of Zilina (SK)
- Training providers: National Land Survey (SE), Educational and Advisory Institute of MARD (HU), Landscape, Natural and Cultural Heritage Observatory (IT)
- International: GISIG (Geographical Information Systems International Group, IT), AGILE (Association of GI Laboratories in Europe, NL)

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Work Packages

- WP1: Project administration
- WP2: End user needs
- WP3: Development of modules
- WP4: Development of course selector
- WP5: Dissemination
- WP6: Quality management

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WP1: Project Management

- Project setup (contracts) [DONE]
- Strategic planning and conflict solving (Steering Committee Meetings) [Ongoing]
- Establishment of GI INDEED technical secretariat [DONE]
- Monitoring progress and coordination of tasks (Progress reports) [Ongoing]
- Preparation of reports to LdV [Mid-term report submitted]

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WP2: Target group needs

○ End users training needs
  - Survey using questionnaires and interviews
  - Report on internal review

○ Curriculum and teaching plan
  - Modules being defined
  - Metadata defined for modules and components

Courses, modules and components

- A <u>course</u> is something being offered to a student / trainee / organisation.
- A <u>course component</u> is something that can be traded
- A <u>module</u> is a set of course components that fits together

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Netbased course components 1(2) – possible deliveries

- Lectures
  - Slide shows (with or without sound)
 - Streamed video recordings
  - Online video conferences
- Literature
  - URL's
  - PDF's

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Netbased course components 2(2) - possible deliveries

- Exercises (tasks, data and guidance)
  - Citrix based monitoring and guidance
  - Email and chat
  - Interactive teaching material
- Seminars
- Project work
- Study visits
- Self tests
- Examination

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Net based exercises

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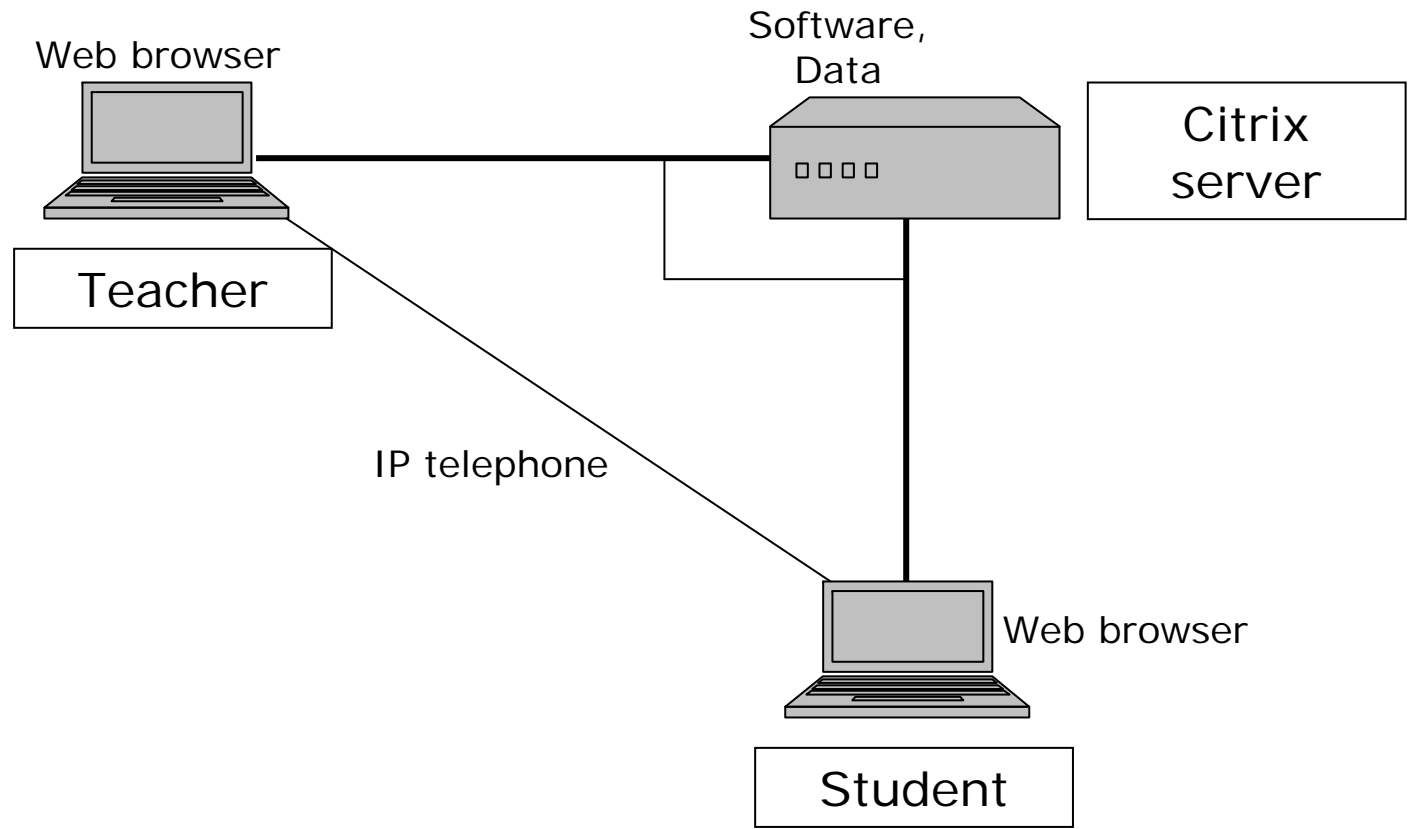
Metadata for modules

- Information about producer
- Language, data, keywords, objective, length (ECTS)
- Content (levels etc)
- Prerequisites
- Requirements on equipment
- Course components

Blooms taxonomy

Level	Description
1	Knowledge. Recall data or information. Examples: Recite a policy. Quote prices from memory to a customer. Knows the safety rules.
2	Comprehension. Understand the meaning of instructions and problems. Examples: Rewrites the principles of test writing. Explain in one's own words the steps for performing a complex task. Translates an equation into a computer spreadsheet.
3	Application. Use a concept in new situation. Applies what was learned in classrooms into new situations. Examples: Use a manual to calculate an employee's vacation time. Apply laws of statistics to evaluate the reliability of a written test.
4	Analysis. Separate materials or concept into parts. Distinguishes between facts and inference. Examples: Troubleshoot a piece of equipment by using logical deduction. Recognize logical fallacies in reasoning. Gathers information from a department and selects the required tasks for training.
5	Synthesis. Build a structure or pattern from diverse elements. Examples: Write a company operations or process manual. Design a machine to perform a specific task. Integrates training from several sources to solve a problem.
6	Evaluation. Make judgement about the value of ideas or material. Examples: Select the most effective solution. Hire the most qualified candidate. Explain and justify a new budget.

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Courses made of components

Course given to Swedish trainee

Component A in English

Netbased

Provided by Partner 1

Component B in Swedish

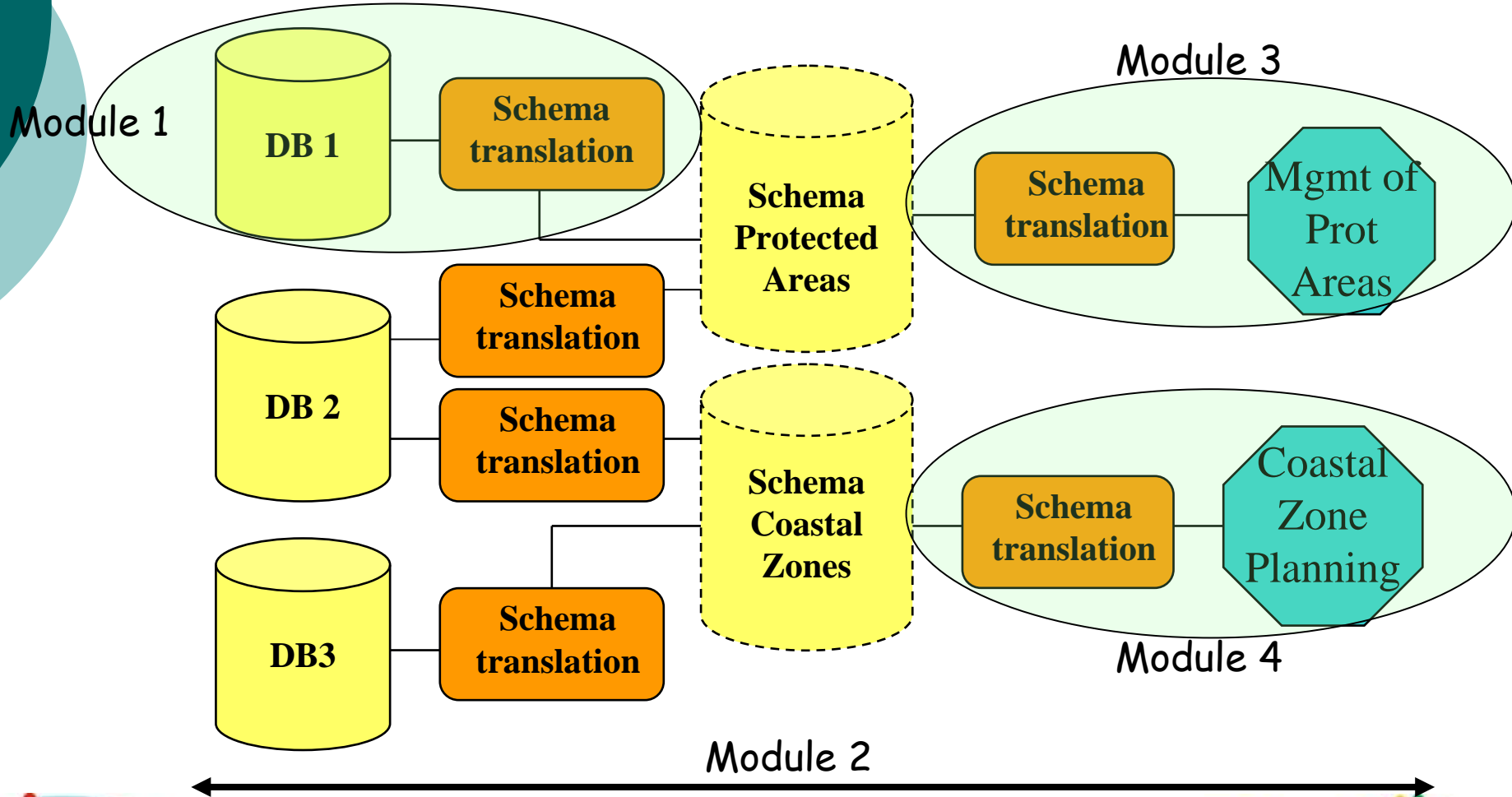Netbased

Provided by Partner 2

Component C in Swedish

On-site

Provided by Partner 3

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Modules

- Environmental web services
- Spatial Data Infrastructures
- Use of SDI for protected areas
- Use of SDI for coastal areas

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GI-INDEED Modules

Module 1

Module 3

DB 1 — **Schema translation**

Schema translation

Schema Protected Areas

Schema translation — Mgmt of Prot Areas

DB 2 — **Schema translation**

Schema translation

Schema Coastal Zones

Schema translation — Coastal Zone Planning

DB3 — **Schema translation**

Module 4

Module 2

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M1: Environmental web services

- E-Commerce including web service stack (level 1)
- Web services (level 1-5)
- Open source solutions (level 1-4)
- Harmonisation of geospatial data (level 1-2)

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M2: Spatial data infrastructures

- Concepts of spatial data infrastructure (level 1)
- History and current status of SDI (level 1)
- Organisational issues (level 1)
- Access to reference data (level 1-2)
- Network services (level 1-2)
- Metadata and catalogues (level 1-5)
- Data quality (level 1-5)

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M3: Use of SDI for protected areas

- Driving policies for protected areas (level 1-3)

- Principles of management of protected areas (level 1-4):

- Using geo-information for the management protected areas (level 1-5)

- Use case development (level 3-6)

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M4: Use of SDI for coastal zone

- Principles of coastal integration and coastal planning (level 1-3):
- Examples of using geo-information for coastal management (level 3-4)
- Integrated coastal management
  - structuring and analysing the problem (level 4-6):
  - setting solutions (level 4-5):
  - web publishing of geo-data (level 3-4):

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WP3: Development and testing of training material

- Draft development finished
- Evaluation and synchronisation, March 2007.
- Local adaptation and pilot tests from April 2007

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WP4: Autonomous course selctor

- Use cases defined
  - Student / trainee / staff looking for a course
  - Course examination
  - Career path
  - Adding tests, career paths, grades etc
  - Departmental requirements
- Development on-going

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WP3: Valorisation

- Web site (www.gisig.it/gi-indeed)
- White paper, conference presentations [ongoing]
- Promotion material, CD's etc [ongoing]
- 9 workshops [ongoing]
- Business plan [ongoing]

Workshops and tests

- WS 1a-1d in Sweden, Italy, Hungary and Slovakia
  - Discussion of end user needs analysis
- WS 2 in Italy (October 2006)
  - First test of course components
- Beta tests in Sweden, Italy, Hungary and Slovakia (January 2007 - April 2007)
- WS 3a-3d in Sweden, Italy, Hungary and Slovakia (July - August 2007)
  - Presentation of final version

WP6: Quality Management

- Internal reviews
- External review by an expert (Jim Petch)
- Measuring and reporting outcomes of seminars

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Summary

○ Important project

○ Fairly well on target (timing and budget)

○ Flexible outcome for a wide range of users