TEN Competence
Building The European Network for Lifelong Competence Development
Competence Mapping And Gap Analysis in Learning Networks

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Overview

• The Challenge
• TENCompetence Approach
• Competence Development Procedure
• Personal Competence Manager System
• Personal Development Planner
• TENCompetence Foundation
The Challenge

• In today's economy individuals and organisations need to be flexible and agile

• But the technical and organisational systems used to deliver education and training are based on traditional structures
  – cohorts, courses, familiar career structures, qualifications based on a single institution
TENCompetence Project

• IST/TEL Integrated Project – Sixth Framework Programme, EC
• December 2005 – November 2009
• 15 core partners + Associate Partners
• Aim: to build a technical and organizational infrastructure for lifelong competence development
TENCompetence Focus

• Supporting **individuals** in development of their competences during the whole life:
  – keep up to date with their competences
  – attain a new set of competences
  – upgrade their competences to a higher level
  – match their competences to other attractive job profiles
TENCompetence Approach

• Competences as a means of unifying personal development activities
• A portal interface
• A service based architecture and Open Source applications - adaptable to particular needs and enterprise systems
• Open and standards compliant data formats ensuring portability
Competence

A *competence* is the *estimated ability* of an actor to deal with *critical events, problems or tasks* that can occur in a certain situation (at work, at home, etc.)

This estimation can be based on:

- Self assessment
- Informal assessment by others
- Formal assessment by others
Integration Levels

- Community of network users
- Community of programme users
- Community of learning activity users
- Community of knowledge resource users

Network for lifelong competence development
Competence development programmes
Learning activities & units of learning
Knowledge resources
Competence Development Procedure

1. Competence Map
2. Tasks-Competences Matrix
3. Self-Assessment
4. Gap Analysis
5. Training Needs
6. Expert Facilitators
7. Competence Networks
18 Competence Profiles

• Requirements analyst
• Architectural designer
• User interface / Interaction designer
• System developer
• Software tester
• Database manager
• Etc.
Proficiency Level

0 = none
1 = can apply this with support in a relatively simple and well organized situation
2 = can apply this independently in a relatively simple and well organized situation
3 = can apply this independently in complex situations
4 = can apply this flexible in complex situations, can evaluate the competence and can support others
1. Competence Map

Profile: Pilot Designer & Evaluation

Competences in the profile:

- Given the aims of the project and the requirements of the software:
  - a. Be able to develop and execute an evaluation plan by selecting and applying the most appropriate quantitative or qualitative research design, according to the described principles in the methodological research literature.
  - b. Be able to develop and implement the data collection instruments (questionnaires, loggings, etc.) that are required according to the evaluation plan.
  - c. Be able to select and apply the most appropriate statistical methodologies, techniques and tools for statistical analysis. This includes the use of tools for statistical analysis (SPSS, SAS, R, spreadsheets, etc.).
  - d. Be able to interpret, report, present and discuss the statistical results (including the reporting in scientific papers).

Score: 0 1 2 3 4
# 2. Tasks-Competences Matrix

<table>
<thead>
<tr>
<th>VP2 Requirements &amp; Analysis of the Integrated System</th>
<th>Architectural Design</th>
<th>User Interface &amp; Interaction Design</th>
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</thead>
<tbody>
<tr>
<td>Management, review and assessment</td>
<td></td>
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<tr>
<td>Complete the work planned under DoV</td>
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<td>Vision development</td>
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<tr>
<td>Operationalize the vision and model into specific functional and non-functional requirements and process descriptions</td>
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<table>
<thead>
<tr>
<th>VP3 Technical Design &amp; Implementation of the Integrated System</th>
<th>Architectural Design</th>
<th>User Interface &amp; Interaction Design</th>
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<tbody>
<tr>
<td>Management, review and assessment</td>
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<tr>
<td>Update the overall TENT Competence architectural design</td>
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<td>Integrates finalized WP5 &amp; components</td>
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<tr>
<td>Select, design and implement additional existing components that are currently state of the art</td>
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<td>Set up and maintain the infrastructure for running pilots in the project</td>
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<tr>
<td>Design, implement and deliver new releases of the integrated TENT Competence system for supporting VP4 pilots</td>
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<thead>
<tr>
<th>VP4 Pilots with the Integrated System &amp; validation of the project</th>
<th>Architectural Design</th>
<th>User Interface &amp; Interaction Design</th>
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</thead>
<tbody>
<tr>
<td>Management, review and assessment</td>
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<tr>
<td>Set up the cycle pilot and validate the initial system</td>
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<td>Definition, planning, and energy of cycle-2 pilots</td>
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<tr>
<td>Provide evaluation methodologies</td>
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<tr>
<td>Collect and distribute requirements, use cases, scenarios, and other useful information</td>
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<thead>
<tr>
<th>VP5 Knowledge Resource Sharing &amp; Management</th>
<th>Architectural Design</th>
<th>User Interface &amp; Interaction Design</th>
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</thead>
<tbody>
<tr>
<td>Management, review and assessment</td>
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<tr>
<td>Research and development of new flexible models for proactive knowledge resource use, sharing and exchange</td>
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<tr>
<td>Design and develop the KRM service models</td>
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<tr>
<td>Experiment and evaluate the usability of the knowledge resource sharing &amp; management components</td>
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</tbody>
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3. Self-Assessment
4. Gap Analysis

• Compare and analyze what is required (2) and what is available (3)
5. Training Needs

• Lowest proficiency levels
  – deployment (Systems manager, Service provider, Database manager)
  – design (Architectural designer)

• Best proficiency level
  – TENCompetence member

• For each competence - consider how many experts are needed to plan trainings
6. Expert Facilitators
7. Competence Networks

• Competence network – purposes
  – collect and share relevant resources
  – annotate and rank them
  – discuss on open issues
  – find colleagues for collaboration
  – get guidance and advice from experts
  – organize and attend live events
Personal Competence Manager System

- Built using the Open Source Liferay Portal
- Integrates a set of prototype web applications
- Provides substantial built-in support for community based applications
- Can be integrated into enterprise systems
TENCompetence Components

- Competence Authoring Tool
- Competence Assessment Tool
- Personal Development Planner
- Personal E-portfolio
- Learning Path Editor
- Learning Design Toolset
- LearnWeb 2.0
Personal Development Planner

• PDP positions the learner in relation to a target competence profile
• PDP assists in identifying and making good short comings in their skills set
• PDP delivers a wide-ranging choice of competence profiles
• Competence proficiency levels are based on the EU Qualification Framework (EQF)
Personal Development Planner

http://pdp.tencompetence.org
TENCompetence Foundation

- Provides ownership of the code base and manages the release schedule
- Facilitates and provides leadership to the TENCompetence developers network
- Facilitates the TENCompetence user network
- Further develops the TENCompetence vision to guide future work
TENCompetence Participation

• Subscriber – free membership
  – to receive news and updates on TENCompetence software and Foundation activities

• Full member – paid subscription
  – to take a more active role in contributing to the maintenance, development and continued use of the system
Contact

• Project Website: www.tencompetence.org
• Publications: dspace.ou.nl
• E-mail: info@tencompetence.org