

D9.2 Report, containing internal deliverable outcomes ID9.2-ID9.11

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D9.2 Report, containing internal deliverable outcomes ID9.2-ID9.11

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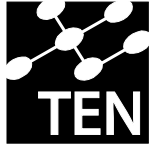
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Building The European Network for Lifelong Competence Development

Building the European Network
For Lifelong Competence Development

TENCompetence IST-2005-027087

Project Deliverable Report

D9.2 – TENCompetence Training Report

Aggregating Internal Deliverables ID9.2-ID9.12

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Table of Contents

1.	EXECUTIVE SUMMARY.....	2
1.1	<i>Achievements</i>	2
1.2	<i>Deviations from Planning and Constraints</i>	2
2.	INTRODUCTION.....	4
3.	NETWORK FOR PHD STUDENTS.....	6
3.1	<i>Objectives</i>	6
3.2	<i>Target Audience</i>	6
3.3	<i>Activities</i>	6
4.	NETWORK FOR ASSOCIATE PARTNERS.....	9
4.1	<i>Objectives</i>	9
4.2	<i>Target Audience</i>	10
4.3	<i>Composition of the Network</i>	10
4.4	<i>Associate Partner Roles</i>	11
4.5	<i>Planning</i>	12
4.6	<i>Overview of Work Performed</i>	13
4.7	<i>Future Directions and Activities</i>	14
5.	TRAINING FOR CONSORTIUM AND ASSOCIATE PARTNERS.....	16
5.1	<i>Training for Participants in Cycle 1 Pilots</i>	16
5.2	<i>Recommendations for Cycle 2 Pilots</i>	18
5.3	<i>Training for Participants in Cycle 2 Pilots</i>	18
6.	TRAINING FOR GENERAL STAKEHOLDERS.....	21
6.1	<i>Training Objectives</i>	21
6.2	<i>Target Audience</i>	22
6.3	<i>Activities</i>	22
6.4	<i>Conclusions & Future Directions</i>	23
7.	TRAINING PILOT.....	24
7.1	<i>Competence Development Procedure</i>	24
7.2	<i>Competence Map</i>	24
7.3	<i>Tasks-Competences Matrix</i>	26
7.4	<i>Self-Assessment</i>	26
7.5	<i>Training Needs</i>	27
7.6	<i>Implementation</i>	28
8.	CONCLUSION.....	30
	APPENDIX 1 – VIRTUAL LECTURES.....	31
	APPENDIX 2 – WEB SEMINARS.....	32
	APPENDIX 3 – WINTER SCHOOL 2007.....	34
	<i>TENCompetence Winter School Evaluation</i>	37
	APPENDIX 4 – WINTER SCHOOL 2008.....	42
	<i>TENCompetence Winter School Evaluation</i>	45
	APPENDIX 5 – LIST OF ASSOCIATE PARTNERS.....	50

1. Executive Summary

This Deliverable 9.2 (D9.2) is an aggregated report from a number of Internal Deliverables (ID9.2 – ID9.12) that were produced during the period of month 13 – 30 covered by the Detailed Implementation Plan DIP-2.

The report follows the tasks and activities planned and achieved by WP9 during the period in question. These tasks were set roughly along the lines of TENCompetence stakeholder communities: PhD students and researchers, Consortium and Associate Partners, and end users (general stakeholders). WP9 activities covered all the ground foreseen at a level that was appropriate for this early stage of the project.

1.1 Achievements

At a phase of the project, where research activity played the most important role for input to the technical developments, WP9 succeeded in providing a fertile environment for the creation and exchange of new knowledge in the fields of competence development and personal learning. Two residential Winter Schools together with an online platform for continuing collaboration were organised to bring researchers together and exchange knowledge. Additionally, developers were supported in their task to build the TENCompetence infrastructure through enhancing programming skills and via a user interaction design workshop.

A network of Associate Partners was created in 2007 with a considerably high number of interested organisations joining during the first year of its inception (see list in *Appendix 5*). Response to pro-active invitations to events were still at a low level at this early stage, but is expected to rise during the DIP-3, and DIP-4 periods. Due to the nature of business partners and general stakeholders, a conventional approach to training was taken, consisting of guidance, manuals, and training workshops (face-to-face and online).

WP9 supported the implementation of the first round of pilots using the Personal Competence Manager software (PCM). This proof-of-concept implementation was supported through the development of a user manual, worksheets and several end-user training events, which were also open to interested general stakeholders.

1.2 Deviations from Planning and Constraints

Due to the overlap of DIP-2 and DIP-3 in months 25-30 there were a few minor revisions of the previous plans taken on board following events in other work packages and feedback. The greatest deviation from DIP-2 was due to feedback from the annual review in month 25, where greater emphasis was demanded for real-life pilots. This led to a change in the view to conduct an internal training pilot (Task 9.5), which up to this point had been progressed. The change also shifted the focus for pilots from WP9 to WP4.

There were some delays in the release of software which affected the timetable on running the Cycle 1 and Cycle 2 pilots. The latter were postponed to month 36 and now fall outside the reporting period covered in this document.

Constraints on training emerged through the previously immature and delayed software release mentioned above. This affected how TENCompetence could be presented and provide training especially to external stakeholders. Instead, more emphasis was put on internal training needs to support delivery of the tool. Training for external parties typically focussed on the concepts rather than the tools of the project. Again, in the forthcoming two years it is envisaged that this will change.

Wolfgang Greller
June 2008

2. Introduction

The TENCompetence Description of Work states that training activities within the project have a twofold purpose:

- (1) they support exchange of knowledge and skills in the TENCompetence community,
- (2) they prepare a network of TENCompetence service providers and general stakeholders.

At the end of the project period, the TENCompetence system will provide training opportunities for online, face-to-face and blended competence development situations, including social and collaborative scenarios. In this implementation phase, special attention was given to training for the planned pilots, evaluation of the training, and preparation of next training plans.

In Deliverable 9.1 we have provided a training roadmap for the TENCompetence users, associate and core partners, taking into account various audiences and their roles in the project. In that document, we clarified the general training objectives and approach, identified the target audiences and roles, and outlined our training activities, including a preliminary time schedule.

The current Deliverable 9.2 is not an independent product, but a compilation of a number of Internal Deliverables. It contains excerpts and appendices from the original documents which are all available on DSpace (<http://dspace.ou.nl/handle/1820/497/browse-date>).

The aim of the report is to present TENCompetence training activities during project month 13 (December 2006) and project month 30 (May 2008). These activities were based mainly on the plan presented in the Detailed Implementation Plan DIP-2 (month 13-30) and partially also on the Detailed Implementation Plan DIP-3 (month 25-42).

In DIP-2 we specified five tasks for WP9 and each of the five partners involved in this WP became responsible for one of them:

Task 1: Maintain the TENCompetence Network for PhD Students

This includes Winter Schools, Competence Networks, and Web Seminars.

Task leader: OUNL the Winter School organizer, Competence Networks supporter, and Web Seminar coordinator.

Task 2: Maintain the TENCompetence Network for Associate Partners

Here close cooperation with APs is requested.

Task leader: Given the University of Bolton's (UB) ongoing work with candidate Associate Partners and subsequent attendant measures to help orient APs within the network, it was considered appropriate for UB to take the lead on task 2. This can be seen as a natural extension to the work already being done as part of their WP10 remit.

Task 3: Organize Training for Consortium and Associate Partners

Task 3 covers mainly training for pilots (including manuals, help files) and organizing workshops for TENCompetence partners and APs.

Task leader: LOGICACMG as the WP3 leader provides the necessary materials and requirements for the development of training resources.

Task 4: Organize Training for General Stakeholders

Demos, introductory tutorials and workshops at relevant events (conferences, open days, fairs, etc.) are organized to attract new users.

Task leader: SURF has a wide network of contacts and experience in this field and typically maintains a presence at high-profile events.

Task 5: Set up, run, and evaluate a Training Pilot

The TENCompetence training pilot was planned to be prepared, run and evaluated to satisfy mainly internal consortium training needs (between month 20 and 30).

Task leader: SU through their involvement in the cycle 1 pilot on “Integration in Teaching and Organization of Training” were the natural partner to lead this task.

The structure of this document is based on these five tasks, as this was our main plan through most of the reported time interval. By the end of this period, in the Detailed Implementation Plan DIP-3 (month 25-42) these tasks have been revisited and, where necessary, redefined. During the reported time period, WP9 partners met regularly at the quarterly project meetings and, additionally, organized 14 virtual meetings in bi-weekly intervals. Asynchronous communication among the partners was supported primarily by the Moodle discussion forum.

3. Network for PhD Students

Task 1 – Maintain the Competence Network for PhD Students in line with the research activities carried out in the Aspect RTD work packages. A spectrum of online, face-to-face, and blended training opportunities has been provided, among these two one-week residential Winter School events. Promoting the emergence of Competence Networks for PhD Students is an important task in the project. The TENCompetence infrastructure is to support both the emergence and sustainability of learning networks, and this should be reflected in the training activities. The development of the TENCompetence infrastructure rests on the sharing of latest research findings in the fields of competence development, learning networks, and lifelong learning and is carried by the expertise the PhD students gather through their work.

3.1 Objectives

One of the main objectives in the TENCompetence project is to support the communication, collaboration, exchange of knowledge and competence development within the TENCompetence community of core partners and fellow researchers, including PhD students. This includes especially support for research and development through appropriate training. We intended to apply the TENCompetence infrastructure as it became gradually available and to provide training opportunities to create and share new scientific knowledge among PhD students within the consortium, and together with peers external to the project.

3.2 Target Audience

The main target group of this respective task consists of PhD students who investigate issues in the field of lifelong competence development and in related areas, especially in the four key research areas and underlying research fields:

- Knowledge Resource Sharing & Management,
- Learning Activities & Units of Learning,
- Competence Development Programmes, and
- Networks for Lifelong Competence Development.

Although this target group consists mainly of PhD students and their supervisors dealing with research questions related to the TENCompetence project, it has also been open to other people who wanted to become involved. Altogether more than one hundred people subscribed to the TENCompetence PhD Network platform (108 on 20 June 2008).

3.3 Activities

The TENCompetence Network of PhD students had already been established at the beginning of the project and is maintained to support research exchange in the academic community. PhD students can establish Competence Networks that focus on a specific field, e.g. Latent Semantic Analysis, mobile learning, recommender systems, social software, IMS Learning Design, etc. Within such a Competence Network they can collect relevant resources, annotate them, discuss open issues, find colleagues for collaboration, get guidance and advice from experts, etc. In addition to remote cooperation, they can

jointly organize and attend live events. To keep the Network alive and active, events were organized on a regular basis, either virtual (videoconferences, on demand lecture series) or locally (Winter School, workshops, tutorials).

Virtual Lectures are video presentations given by recognized experts from the consortium or presented at events organized by TENCompetence partners. *Appendix 1 – Virtual Lectures* contains a list of events, from which we collected the lectures. The lectures were recorded and were subsequently made available as video on demand.

Web Seminars are video presentations or virtual meetings of researchers and students in cyberspace to introduce relevant topics and to discuss them. Our intention was to have one or two of them each month, except during general vacations. We invited experts in a field to present and discuss topics that are of interest to the members of the PhD Network. The virtual platform Breeze is used for this purpose as an online seminar space. Another format is more similar to the round table sessions during the winter school, where several PhD students presented their work or experience with a certain topic and discussed it with colleagues. To promote successful PhD work from the recent past in our network is another important aspect. Brief descriptions of our past web seminars are presented in *Appendix 2 – Web Seminars*. The seminars are recorded and those who cannot attend them live have an opportunity to find both a video on demand and a presentation file.

The *TENCompetence Winter School* has been organised as an annual live event to bring together PhD students to inform them about up-to-date research results, and to support their collaboration. The TENCompetence Winter School is arranged as intense training and collaboration event on the core topics relating to the TENCompetence project, building the European Network for lifelong competence development. The programme includes lectures and hands-on sessions from leading experts in the field. Our ambition is to stimulate emergence of Communities of Practice and Learning Networks as well as to support joint research opportunities. During the reporting period we organized two one-week residential Winter Schools for PhD students as well as for other researchers interested in competence development and technology enhanced learning. Reports on the past events can be found in *Appendix 3 – Winter School 2007* and *Appendix 4 – Winter School 2008*. To summarize the feedback, we can state that participants more than satisfied with these events and appreciated most the interactive sessions with active participation of attendees as well as informal discussions on their topics of interest. They were keen to present their own work and suggested poster sessions for this purpose. Feedback from the past attendants will be considered in the programme next time. Links to the learning resources from our Winter Schools are available from the TENCompetence Moodle space.

Asynchronous Collaboration is an important means to support the competence network. Eventually, the TENCompetence system will become the main facility to use and will include discussion forums, collaborative tagging and annotation of learning resources, as well as filtering and search tools. During the DIP-2 period, though, the main communication facility in the PhD Network were the discussion fora on our Moodle

server and public website. These have been actively used by the target audience for sharing and exchanging ideas, but also for social purposes and keeping in contact.

Blogs have become a very popular facility to publish people's opinions and experience instead of posting them to LMS fora. To support this type of communication in our PhD network we offered syndication and aggregation via an experimental system called team.sSpace developed by one of our PhD students:

<http://www.partners.tencompetence.org/mod/resource/view.php?id=385>

4. Network for Associate Partners

Task 9.2 – Maintain the TENCompetence Network for Associate Partners, in particular SMEs, to spread the research results of the consortium as well as to getting the feedback and understand the issues surrounding the implementation of the project results. An overview of the activities and their results will be supplied each year.

Put simply, Associate Partners (APs) are organisations that contribute components to the TENCompetence project, its architecture and infrastructure. Moreover, Associate Partners can be organisations that are instrumental in helping to establish a TENCompetence support network for the duration of the project and subsequent to the expiry of the project. More specifically, Associate Partners have an important role to play by providing valuable feedback on the project outcomes thus influencing the future direction of the project and its development. SMEs are considered to be particularly valuable in helping to take the project outcomes beyond the project lifecycle.

Much of the work that takes place in maintaining the Associate Partner network overlaps with, or is complimentary to, the dissemination and Associate Partner recruitment work carried out by WP10. This is particularly true of dissemination work and training events. However, it should be noted that wherever any overlap occurred, the interplay of both work packages produced outcomes which suited the objectives of both work packages. For this reason some of the work undertaken by WP10 is referred to in this report.

4.1 Objectives

The overall aim of this task was to maintain the Associate Partner network and to stimulate exchange of experience between the academic and business partners, to prepare the future TENCompetence organisational infrastructure including various service providers. Another aspect was to disseminate project results and collect feedback accordingly. The implementation of this task was carried out with a view to supporting AP objectives as well as TENCompetence objectives. More specifically, completion of the task entailed:

1. Keeping Associate Partners informed of developments in the project and outcomes relating to their particular area of interest.
2. Providing Associate Partners with a channel for feedback in relation to the implementation of the project results and to consider any suggestions, ideas etc. they put forward.
3. Promoting TENCompetence to potential Associate Partner candidates.
4. Reporting on Associate Partner activities and results.

By providing Associate Partners with privileged access to project outcomes including the results of pilot trials, it was anticipated that Associate Partners will embed these results in their own activities. More specifically the network aimed to provide Associate Partner with:

- immediate access to the latest project documentation
- invitations to participate in online and real-life project discussions and events
- the opportunity to participate in test beds, pilots and demonstrators
- access to specialised training
- links to other professional communities in the lifelong learning domain

The task of maintaining the Associate Partner network was to facilitate access to these results and coordinate provision of valuable feedback and data on the wide range of issues raised by this activity. Within the Associate Partners network, training (WP9) and dissemination and exploitation (WP10) are key to providing the various stakeholders with the support required to prepare them to conduct demonstrators that will stimulate the wider use and uptake of the integrated system beyond the confines of the project and onto the market.

4.2 Target Audience

Within the Associate Partner network two specific target audiences were identified for task 9.2 which included (a) potential and (b) fully-engaged Associate Partners. Both groups are made up of a variety of organisations with differing interests in the project. In view of this it was incumbent on the task leader to identify APs and their respective centres of interest and to disseminate project outcomes and solicit feedback accordingly.

4.3 Composition of the Network

Recruitment of Associate Partners into the project falls within the remit of WP10 whose job it is to maintain a list of potential candidates drawn from contacts made and to help negotiate Associate Partner activity prior to initiating the Memorandum of Understanding (MoU) sign-up process. On completion of the MoU, the then full Associate Partner becomes a member of the wider TENCompetence network.

Since its inception, the Associate Partner Network has grown to include twenty seven Associate Partners (at the time of writing) with the number set to increase as the project outcomes continue to be made available through dissemination. The network includes members drawn from a variety of organisations and institutions and comprises both private and public organizations, projects and networks. The make-up of current members can be broken down as follows:

- Higher Education
- SMEs
- Networks/communities
- Initiatives¹
- Government/ institutions

¹ 'Initiatives' is used as a blanket term to refer to work efforts which operate independently as providers of education or networks that work with, but not for any public body.

Regardless of type, Associate Partners are free to participate in TENCompetence activities according to their respective strengths and interests and can be categorised according to the role they wish to play. The following chapter provides a listing of the various roles that an Associate Partner can adopt.

4.4 Associate Partner Roles

In order to ensure Associate Partners participate in TENCompetence in keeping with their various profiles and ambitions, four different roles were identified and implemented within the structure of the network. The following table lists the four key roles and provides a description of the type of participation implicit in each. Details of membership type and roles in relation to each of the full members can be found in *Appendix 5 – List of Associate Partners* .

Role	Participation	Benefits
User organization	Potential users of the TENCompetence infrastructure. In this role APs can contribute use cases, scenarios and user requirements, and participate in pilots.	APs will be able to help shape the TENCompetence infrastructure to better fit their needs. They are assisted in implementing early versions of the TENCompetence infrastructure within their organization.
Technology provider	Developers of open source components or service implementations or intending to do so - that fit the TENCompetence architecture.	APs get access to technical documentation, discussions, testing sessions etc. just like a TENCompetence consortium member.
Service provider in lifelong competence development	Materials developer, training provider, assessment centre, HRM service provider, etc. APs in this role can contribute use cases, influence business model development, and participate in pilots and demonstrators.	APs get full access to functional requirements definitions, business models, discussions, training sessions etc. like TENCompetence core partners.
Project or network in the field of lifelong competence development	APs in this role are a project, consortium, or network which wants to harmonize RTD and dissemination activities with TENCompetence.	APs get full access to documentation, discussions, testing sessions, dissemination materials, etc.

4.5 Planning

The conducted planning activities of the AP network resulted in the below framework for training provision which covers needs, scope and format. The following arrangements were identified as intrinsic to Task 9.2 for Associate Partners:

- Conduct a needs analysis for each category of AP
- Liaise with “guardian” work packages and enlist their help in the production of relevant training resources and/or dissemination effort
- Disseminate the research results of the consortium to APs according to their centres of interest

Training needs tailoring and may include one or more of the following:

- How to use the PCM
- How to customise the system
- How to enhance the system
- How to deploy the system for other users
- Details on specific aspects of the system

Training and dissemination may take place via:

- Meetings and workshops
- News bulletins
- Forums
- Presentations
- Demonstrations
- Workshops
- Camtasia “movies”
- Articles

One of the mentioned objectives was to provide Associate Partners with a channel for feedback. This takes place mainly through WP10 liaison activities and/or WP4. It was considered important that all AP feedback is captured, processed and, where necessary, communicated to relevant parties.

For potential Associate Partners, awareness raising initiatives in the form of PCM demonstrations and workshops were employed in an attempt to attract them to signing a MoU and become full Associate Partners. Such initiatives were held at TENCompetence events and in the wider context of relevant conferences.

The demonstrator activities of Detailed Implementation Plan DIP-3 will be aimed at exploring exploitation scenarios and services with a view to ascertaining their viability in the market and gaining additional insights into sustainable scenarios. It is anticipated that the outcomes of the demonstrators will result in fine tuning activities in relation to the system and services TENCompetence provides, as well as providing opportunities to exploit the system in real-life settings and to test the market and raise the interest of potential customers, including associate partners, who might wish to exploit, adopt or

build on the tools and services provided. Moreover, the demonstrators will serve to nurture better awareness and understanding of the integrated system within the user community.

Whilst Demonstrator Activities are managed and coordinated by WP4, maintaining and training Associate Partners in the various facets of the system (function, exploitation etc.) and keeping them informed of developments to the system are a critical task peculiar to WP9 Task 9.2.

4.6 Overview of Work Performed

Given the variety of roles available, Associate Partners were catered for on the basis of the roles they have opted for. To date, the bulk of work in maintaining the Associate Partner network concentrated on documenting Associate Partner interests, expertise and proposed contributions with a view to “activating” their participation as and when opportunities arise and project outcomes permit.

During the pre-release stage of the PCM as a proof-of-concept tool for expert use and demonstration purposes, task 9.2 already involved informing and recruiting early adopters from among the Associate Partners for PCM-related training events including a PCM workshop organised and run by WP9 as part of the “Open Workshop on Current research on IMS Learning Design and Lifelong Competence Development Infrastructures” which ran in Barcelona in June 2007.

APs and prospective APs were invited and partly attended special workshops and end-user training sessions held at TENCompetence Open Workshops in Maastricht (October 2007), Madrid (March 2008) and Salzburg (June 2008). A separate Code Bash held in connection with the Madrid Open Workshop also attracted one SME Associate Partner to take part and contribute.

With the creation of an Associate Partner mailing list, relevant announcements and invitations to workshops, conferences and meetings continue to be delivered across the network and in some cases individuals have been contacted and one-on-one support meetings arranged (either virtually or face-to-face) to discuss training needs or to talk through updates on the Associate Partner progress.

Another activity related to the monitoring and the maintenance of links forged by WP10 between core partners working on Aspect work packages (WP5-8) and Associate Partners whose interests and expertise lie in the provision of technology. WP10 facilitated the initial part of this process by determining which work packages the Associate Partners were best to collaborate with. The subsequent monitoring process required work package leaders to contact Associate Partners and provide any help they could offer and to take advantage of any practices that the Associate Partner could offer. Whilst there are currently no tangible outcomes resulting from such collaboration of these two sets of partners, work, although tentative at this stage, has been ongoing especially in the fields of assessment and the competence observatory.

4.7 Future Directions and Activities

The importance of the Associate Partner network will increase as the services and tools of TENCompetence materialise and become more widely available. An important part during the past period was, therefore, anticipating emerging needs and requirements and to plan the future direction of Task 9.2.

Four major areas of activity have been identified as key to the future success of the Associate Partner network:

Dissemination

In concert with plans to provide more training and training-related events for Associate Partners in WP9, task 9.2 will seek to produce and disseminate regular newsletters on project outcomes in addition to the announcements they previously received. The dissemination of regular updates in this way was considered integral to maintaining the interest and cohesion of the network, and efforts to sustain levels of interest and activity will be redoubled. With the first public release of the PCM in the beginning of 2008, a battery of resources is being prepared to help better inform Associate Partners on the project and the system. These include:

- Aspect work package briefings intended to clarify the research and development taking place in the field
- A rollover version of the domain model to explain the infrastructure as a whole
- PCM training video, updated manual and worksheets
- Increased focus on and moderation of the PCM forums

Task 9.2 will be instrumental in providing access to and raising awareness of these resources. It will liaise with Associate Partners subsequent to the release of the resources in order to help coordinate and organise wider take-up.

Consultation

Another initiative designed to further consolidate and improve the effectiveness of the network includes consulting Associate Partners on their needs and ideas for future network activities. In collecting and acting on Associate Partner suggestions, it is anticipated that the network activity and dynamic will increase. WP9 will remain attentive to the needs of Associate Partners and will continue to monitor their level of participation while maintaining regular contact to ensure their needs are being met. Moreover, wherever Associate Partners see a need for change in the work of TENCompetence, their concerns, ideas, suggestions etc will be forwarded to the relevant parties in the consortium for subsequent discussion and action where required.

Collaboration

In order to facilitate and clarify objectives and working relations between Aspect work packages and Associate Partners in their role as prospective technology providers, it is proposed that both sets of partners produce a schedule or description of work in collaboration with one another. To date, progress in this respect has been laborious and lacking in solid commitment, due, in part, to shifting priorities and intermittent

correspondence between the parties concerned. A schedule for providing sustained focus and increased levels of commitment will support further fruitful collaboration.

Associate Partner's who expressed an interest in piloting the system will be notified of any developments and provided with the necessary assistance/training needed to run a pilot.

Associate Partner training

Whilst the provision of training falls within the remit of WP9 Task 3, it is anticipated that the maintenance of the network is contingent on the provision of training related events. To this end, Associate Partners have been invited to two impending training events: EUCEN and the Winter Schools. Given the difficulties inherent in assembling a relatively small number of people from across Europe for training, further events will most likely be in the form of Associate Partner workshops combined with other TENCompetence events. Virtual events, conferences, seminars, etc. targeted at the various AP roles are also undergoing consideration as a solution to the current problem of the distributed nature of the network.

5. Training for Consortium and Associate Partners

Task 9.3 - Organize Training for Consortium and Associate Partners (especially SME in their potential role of service providers) to promote design, development, deployment, and use of the project outcomes. Training activities focused on developers of services, producers of learning resources, trainers, and service providers. Emphasis was given to the TENCompetence pilots, i.e. for each cycle a training program was designed and executed.

5.1 Training for Participants in Cycle 1 Pilots

In this chapter, we summarise the WP9 activities relating to the internal consortium pilots conducted during the DIP-2 project phase. This consisted of pre-pilot planning and a post-pilot evaluation of TENCompetence training. The training plan for the Cycle 1 pilots included the following goals:

Goal 1: Prepare programmes, manuals, worksheets and help files for use of the PCM

- Objectives:**
1. To clarify the training needs of pilot users
 2. To develop training processes and programmes
 3. To prepare the training materials

Goal 2: Organize an internal workshop for researchers, developers and pilot users

- Objectives:**
1. To plan the training event(s)
 2. To implement the training process and improve core competence of users
 3. To improve user competences for the pilots

Reflection on Goal 1:

ICT training pilot

The ICT training pilot provided the PCM User Guide to all its participants as a free training resource. Furthermore, Sofia University organised a half-day face-to-face session on how to work with the PCM. During this training the audience was explained how to install and set up the PCM, start it, choose and connect to a community, create and follow a pre-defined competence development plan, choose different competences, choose and define their own competence development plans.

Learning materials provided:

- PCM User Guide
- Set of instructions (in Bulgarian)
- Basic recommendations on how to use the PCM (in Bulgarian)
- FAQ's

Numbers of students and tutors/teachers:

65 students and 6 teachers, where 3 teachers were from Sofia University and 3 teachers were provided by the Ministry of Education since they had expertise in the I*Teach methodology.

Digital Cinema pilot

In the Digital Cinema pilot most learners were contacted online. UPF compiled a welcome package (Attachment 3 from D4.2) that was sent to participants. This welcome package included a link to the PCM User Guide and a short explanation on downloading the PCM. UPF also created a training video which was used during the two face-to-face sessions

(http://www.sled.upf.edu/activities/videos/pcm_tenCompetence/pcm_tenCompetence.html).

The distributed learners who had any questions regarding the pilot sent their questions by email. Finally, an informal questionnaire was created for the technical people supporting the pilot and the teacher leading the pilot.

Learning materials provided:

- Welcome package
- PCM User Guide
- Training video
- Support forums on www.tencompetence.org
- PCM tool tips: a short explanation shown when hovering over an icon.

Numbers of students and tutors/teachers:

57 students and 2 teachers.

Reflection on Goal 2:

WP9 organised the following:

- Two workshops in Barcelona, the focus changed from an internal to an open workshop to include potential Associated Partners who wanted to conduct pilots in future.
- One workshop in Sofia, an internal workshop focused on the needs of internal researchers, developers and pilot users.

Sofia Workshop

On the 6th and 7th September 2007 an internal workshop for researchers and developers was held in Sofia.

Barcelona Workshops

The first workshop took place on the 21st of June 2007 in Barcelona and was locally arranged by UPF. The objective was to present the project aims, the plans for the first two pilots, the current status of the Personal Competence Manager (PCM), and to let workshop participants test the PCM themselves. This workshop was targeted at Associate Partners and interested SME's.

The second workshop took place on the 30th of October 2007; the objectives of this second workshop were twofold:

- To present the TENCompetence project and its outcomes. The audience consisted of around 30 participants interested in the impact of Technology and Media on Education. The presentation is available at <http://dspace.ou.nl/handle/1820/1100>
- To enroll participants in the Digital Cinema pilot. The audience comprised future journalists who develop skills related to the creation of digital content including videos.

5.2 Recommendations for Cycle 2 Pilots

During the discussions with the pilot leaders from SU and UPF we came up with a list of recommendations. We asked them to prioritize these recommendations. The next step was to give an indication of the effort required to implement a recommendation. These indications were given by training and material experts from WP9 and WP10.

From our evaluation of the past pilots we can draw three main conclusions:

1. The creation of training videos has high value but also needs a lot of effort to be implemented. A limited scope will be implemented in the next project phase.
2. The creation of a set of quick user guides is considered important. This will be produced for use by the Cycle 2 pilots.
3. Translation of the PCM training materials and guides into the local language is considered important and can be outsourced where required. Partners will be responsible for doing this where they see a need.

The Cycle 2 pilots should benefit from the evaluation of the Cycle 1 pilots, therefore, implementation of the recommendations has to be completed before the start of the Cycle 2 pilots.

5.3 Training for Participants in Cycle 2 Pilots

WP9 already planned the training provision for the new pilots of Cycle 2. In this cycle the evaluation results of the pilots and the output of the first cycle of Aspect RTD activities will be taken as an input for the integration activities and the infrastructure will be redesigned and extended to accommodate these new results. In this second cycle the main integrated technology development activities will take place to construct the infrastructure.

The pilots' programme will be greatly expanded in this cycle, with major pilots planned in professional development for Medicine, Water Management related to the Nile region, and integrated competence management in the city of Antwerp, as well as in digital cinema. This second cycle of pilots has the character of 'usability pilots'. They aim to validate the solutions developed to establish that the TENCompetence concept in reality are usable, that is to say that they provide effective solutions to real problems in an authentic context. These pilots were extended and rescheduled, so the planning of them is still under construction while preparing this document. It is planned that the pilots will be

carried out between month 33 through to month 36. Furthermore, the tool selection is also under discussion but below an overview of the pilots planned and the corresponding tools intended to be used at the moment of writing.

- Water Management Pilot
 - PCM
 - PDP tool
 - LearnWeb2.0
- ICT Teacher Training Pilot
 - PCM
- Special Education Pilot
 - PCM
- Adult Education Pilot
 - PCM
 - PDP
- Digital Cinema Pilot
 - PCM
 - ReCourse
 - PDP
 - LearnWeb2.0
 - SLeD

The pilots were fully described in Deliverable 4.3. Users will apply the TENCompetence system in a real environment. The later evaluation results will provide feedback for the TENCompetence researchers and developers concerning the functionality, usability, effectiveness, efficiency of tools, and the degree of satisfaction of the end users. These results will be used for improvements towards the Cycle 3 pilots. Pilot participants will require training and support especially regarding the TENCompetence client(s) to help learners in using all the developed components. This includes showing them how to start working with the software, how they can check and update their personal data, make use of the available resources, and connect with peers.

Training Plan Goals

In deliverable 4.3 requests for training materials are still in a preliminary stage. The requests for the above-mentioned pilots are the following (quotes from D4.3):

- Water Management Pilot; *It would be very useful if an introduction (audio + video) was created that introduces the TENCompetence concept(s) and the actual Web tools (to give the overview). For the different web tools a specific introduction animation/movie should be available, that can be consulted by learners, on demand basis.*
- ICT Teacher Training Pilot; *During the Cycle 1 pilots we trained all the experts and trainers how to use the PCM. It was identified, that we need to have a localized Bulgarian version of the PCM, as well as translated user manuals in Bulgarian. As a result of the preparation phase for the Cycle 2 pilots, we provided both translation of*

all the menus and messages inside the PCM in Bulgarian, as well as a translation of the PCM Users Guide.

- Special Education Pilot; *No separate training needs.*
- Adult Education Pilot; *Apart from manuals, videos, etc., Agora staff involved in the pilot will require training sessions at the beginning of September. These training sessions will include the aim and objectives of the pilot as well as the technical use of the pilot implementation. The training sessions will be carried out by UPF in La Verneda.*
- Digital Cinema Pilot: *Explicative videos and brief user manuals are expected to be very useful for the participants in this pilot. The manuals are preferred in HTML format so that they can be linked and easily consulted from the GUI container.*

From the above we can at least set the following goals and their respective products and services:

Goal 1: Prepare and collect user manuals, training videos, quick user guides etc.

Goal 2: Organise/assist in (online) training activities for researchers, developers and pilot users

Goal 3: Write a Report on Training for Cycle 2 Pilots

Training Methods

To achieve our training objectives we work closely together with the respective Aspect work packages to capture their expertise in the training materials. More specifically, we are undertaking the following tasks (this process has already started in DIP-2):

- Setting up a brief document describing the editorial guidelines for the training materials
- Record presentations of the different tools at the Salzburg meeting; use these recordings as a basis for a training materials
- Production of training videos and screen movies
- Production of a series of quick start guides

6. Training for General Stakeholders

Task 9.4 – Organize Training for General Stakeholders (potential end users) including those who will have an important vote in the final uptake of the system – managers of universities, schools, other educational institutes, large organizations, etc.

With respect to this task, the DIP-2 asked for a plan for the development of training on implementation strategies for TENCompetence general stakeholders, future users, (prospective) Associated Partners and Consortium Members. This proposal took into account Deliverable D9.1: TENCompetence Training Roadmap, which forecast the general training approach of the project for the months 13-30. This phase of the project was critical in that the first pilots of the system were run and more (prospective) Associated Partners and future end users became involved in the project (see list in *Appendix 5*).

As was indicated in the section above, the results of the pilots are essential for the uptake of the system by pilot users and prospective partners. For general stakeholders, not only a technically sound and user-friendly system will adhere to the uptake of the system but also the process of implementing it. The institutes and organisations who would want to implement the TENCompetence infrastructure need to be prepared and guided during the implementation process in the aspects of using the infrastructure. Therefore, for the different types of general stakeholders, training scenarios on implementation strategies were to be created.

Below, the training objectives and target audiences are described. The next paragraph will describe the design of training that has been the outcome of the DIP-2 period activities.

6.1 Training Objectives

In deliverable D9.1, the TENCompetence Training Roadmap, the following general training objectives were defined:

1. To promote and enable the use of the TENCompetence infrastructure
2. To prepare a network of future TENCompetence service providers to sustain the TENCompetence infrastructure
3. To support the exchange of knowledge and competence development within the TENCompetence community of core partners and fellow researchers.

Training on implementation strategies is specifically targeted at the first and second objective. This type of training focusses on preparing (future) TENCompetence users on which implementation strategy to use when adopting the TENCompetence infrastructure in their organisation. Learning from other users (early adopters) on which strategies they used in their pilot is also an important aim of this activity. Eventually, our training will support the final uptake of the system in the future. If (future) users know what the use of

the tools means for their organisation and what implementation strategies they could follow, the system will be prepared for sustainability (project objective 1).

Training on implementation strategies is designed to entail training for prospective participants in real-life pilot implementations in different organisational and international settings (project objective 2). This training activity addresses the competences involved in implementing the TENCompetence infrastructure within the pilots.

More specifically, the objectives for training on implementation strategies are:

- to define general implementation strategies & theories
- to use methods and techniques to manage and support the implementation of the TENCompetence system
- To know the steps to take when implementing the TENCompetence infrastructure
- to translate the TENCompetence concepts into specific situations where the system is implemented

6.2 Target Audience

Based upon the audiences defined in D9.1, the training on implementation strategies is targeted at:

- Subscribers, who have an active interest in the TENCompetence activities and outcomes, including decision makers, entrepreneurs, and educational institutions
- Users, individuals as well as adopting organisations of the TENCompetence infrastructure

People and organisations interested in adopting the TENCompetence system (subscribers) have a more general interest in implementation strategies. They are interested in answering the question: what does it mean for my organisation to implement the TENCompetence infrastructure, what do I need to arrange? Parts of the training will be directed to decision makers, staff members of organisations and entrepreneurs to help them answer this question. By providing training on implementation strategies, WP9 helps subscribers to take a profound decision whether they should adopt and how to adopt the TENCompetence system.

Users that take the decision to adopted the system, will then be interested in what strategies they should follow to put the system to use, and how to translate these to their own organisation. Especially, people who have a role such as Head of Department, Head of ICT, Head of Faculty, etc are the target group for this kind of training.

6.3 Activities

During the reported period, several activities for General Stakeholders were organised. In the table below, an overview is presented of all the training opportunities organised by WP9 partners. The company/organisation name, or type of participants are listed. The links to the presentation files used are also presented. Finally, the last column presented the results of the event for the general stakeholders.

Type of event	Name & type of organisation	File of presentation	Partner involved	Results
Presentation	Cap Gemini, Large Company		SURF	Cap Gemini is considering to become an Associated partner
Presentation	Saxion Hogeschool, Institute for Higher Education		SURF, OUNL	Saxion Hogeschool is considering to do a pilot of the TENCompetence infrastructure
Winter School	Universities, Companies, Researchers	http://www.tencompetence.org/node/116	OUNL et al.	6 people wanted to participate in research, 6 in development, 4 in evaluation, a few in dissemination & training
Virtual conference Learning Networks in Practice	Individuals	http://homer.ou.nl/lnip07/	OUNL et al.	Various issues related to PCM presented
Workshop in Barcelona	SME, Universities	http://dspace.ou.nl/handle/1820/999	OUNL, LCMG	First PCM users trained
Dies natalis	Educational institutes	http://www.ou.nl/eCache/DEF/1/77/505.html	OUNL	PCM principles explained
ePortfolio Conference stand	Universities, Companies	http://events.eifel.org/ep2007/	OUNL, UB, LCMG, SURF	PCM explained & demonstrated

6.4 Conclusions & Future Directions

During the reported period several training opportunities were organised for various stakeholders. The organisation of training opportunities should be done more regularly in the upcoming period and more partners in the project should be involved. In DIP-3 there will be special attention on reaching professional networks, associations, chambers, NGOs, enterprise companies and similar multiplier organisations within the Associate Partner network. Therefore partners involved in WP9, will further refine the training strategy for the stakeholders interested in TENCompetence.

7. Training Pilot

Task 9.5 – Set up, run, and evaluate a Training Pilot to create a shared and full understanding of the TENCompetence infrastructure by partners and associate partners. The pilot was meant to enable the partners and associate partners to create hands-on experience with the available tools and to supply additional feedback to WP3.

The chapters below describe the original approach to competence development within the consortium and associate partners as conceived in the beginning phases of the project. However, after the initial analysis and during the preparation of the Detailed Implementation Plan DIP-3, this approach of mapping competences was revisited and in compliance with the feedback from the annual review perceived as of decreasing importance. Instead, the review panel suggested to refocus the efforts on real-life pilots.

7.1 Competence Development Procedure

TENCompetence principles and tools were applied to assess needed competences and to define competence gaps within the project consortium through the following procedure:

1. *Competence Map*: considering the objectives and tasks to define required competence profiles and competences,
2. *Tasks-Competences Matrix*: create a mapping of competences on tasks (what is needed),
3. *Self-Assessment*: staff uses the competence map for self-assessment (what is available),
4. *Gap Analysis*: compare and analyze what is needed (2) and what is available (3),
5. *Training Needs*: identify and prioritize competence development needs,
6. *Expert Facilitators*: identify training facilitators among experts,
7. *Competence Networks*: establish competence development networks for relevant missing topics.

Thus the TENCompetence training approach (Kravcik et al. 2007) was based on competence mapping and gap analysis. According to the prioritized competence development needs, experts were identified within the consortium to serve as facilitators in setting up competence networks.

7.2 Competence Map

The produced competence map contained all the competence profiles, i.e. functions, competences, and proficiency levels required to perform all the tasks in the TENCompetence project by partners and associated partners. The use of this map was multi-fold. Its intention was to integrate it into the TENCompetence Personal Competence Manager and in this way use the tools for our own internal needs with the side effect that people in the consortium become familiar with the tools (common

ground) and could identify additional functionality, usability issues, while developing their competences and exchange knowledge using these tools. The competence map below was an instrument to identify training needs of associated partners and to use the tools in the context of training events. It was planned to be used in an additional pilot, to track and update competences in a community with many different parties and competences in order to achieve a complex goal (the development of a European infrastructure for lifelong competence development).

Note that the map did not specify *all* competences, only specialised competences that are required for the project at a higher order are mentioned. Underneath these specific competences there are also core competences like: office skills, ability to use a spreadsheet, a word processor, e-literacy, numeracy, etc. The proficiency levels for each competence were set as follows:

- 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 flexibly in complex situations, can evaluate the competence and can support others

For the profile we did not need more than one function level (although system developer and application developer can be seen as two levels). One of the issues with competences was that we had to identify 'hidden' competences: so, in addition to scoring on a list, some open space was available to add competences that could be of need. Another issue was that persons typically were trained for functions or competences in a generic way. This was insufficient to perform well in a project, where project specific skills and knowledge were also required. These were – as far as possible – bundled together in a specific profile *TENCompetence team member* – which described a role for project partners and associated partners. Following these considerations, we specified 18 competence profiles relevant for TENCompetence:

1. Requirements Analyst
2. Architectural Designer
3. User Interface / Interaction Designer
4. System Developer
5. Software Tester
6. Database Manager
7. Systems Manager
8. Pilot Designer & Evaluator
9. Trainer
10. Public Relations Officer
11. Pedagogical Expert (specifically in lifelong competence development)
12. Learning Technology Expert
13. Work Package Manager
14. TENCompetence Project Member
15. Business Manager
16. Human Resource Manager

17. Service Provider (service deployment, customization, maintenance)
18. Additional Personal Profile

The Competence Map comprised a temporary ‘work version’ within the project. Over time it would change under the influence of lessons learned and new developments in the TENCompetence environment. How to incorporate such changes in existing competence networks is one of the challenges of the project. The Competence Map for self assessment was distributed amongst all TENCompetence staff and analyzed in the following phase.

7.3 Tasks-Competences Matrix

Once the self-assessment maps were collected, they were mapped against the required competences related to the specified tasks and a matrix of tasks against profiles and competences was created. This served as a basis for defining training priorities and setting up competence networks.

7.4 Self-Assessment

Consortium competence mapping was considered to help us identify competence gaps to provide appropriate training to fill them. We collected responses from 53 participants, which was just a part of all project members, consisting of 15 core institutions. Some people changed over time, but there were always at least 100 project members actively working on the project. We saw two main problems why there were not more responses received. One of them certainly was that some people were too busy to react to surveys like this. Another one was that some persons did not want to provide certain type of personal information, a comment made when feedback was collected.

To illustrate the results of our evaluation we prefer not to show the proficiency levels for all 112 profiles collected, simply for clarity reasons. Instead, Figure 1 shows mean proficiency levels for each of the 17 competence profiles.

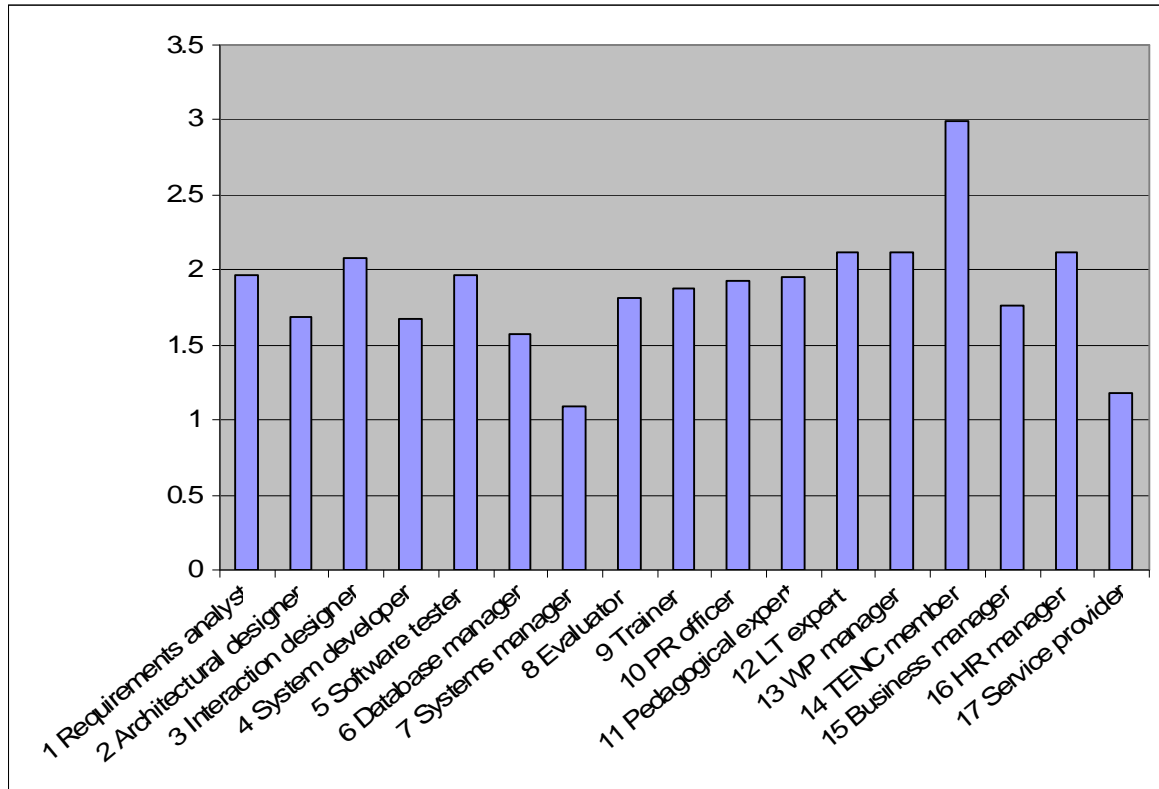


Figure 1: Competence profiles with average proficiency levels

7.5 Training Needs

The chart can be interpreted in the following way. The lowest proficiency levels are in the profiles related to deployment of our software solution (systems manager, service provider, database manager). Training in this area is expected to focus mainly on associate partners (cf. chapter 6.1 on training in implementation strategies). The best proficiency level was achieved in the profile TENCompetence member, which shows involvement of partners in the project. Some profiles are directly related to specific work-packages, so here training needs depend on their demand. On the other hand some profiles are very general (pedagogical expert, learning technology expert) which is probably why the average proficiency levels are relatively high here.

Another perspective was looking at the number of experts that were then available to support others in their training (Figure 2). We saw that there were enough people who could disseminate information about the project to the outside world. On the other hand, there a shortage of experts was evidenced in the profiles related to software deployment (service provider, systems manager). However, this expertise could be available elsewhere in the consortium not directly connected to the project. Of course, another possibility to cover gaps includes hiring of external experts.

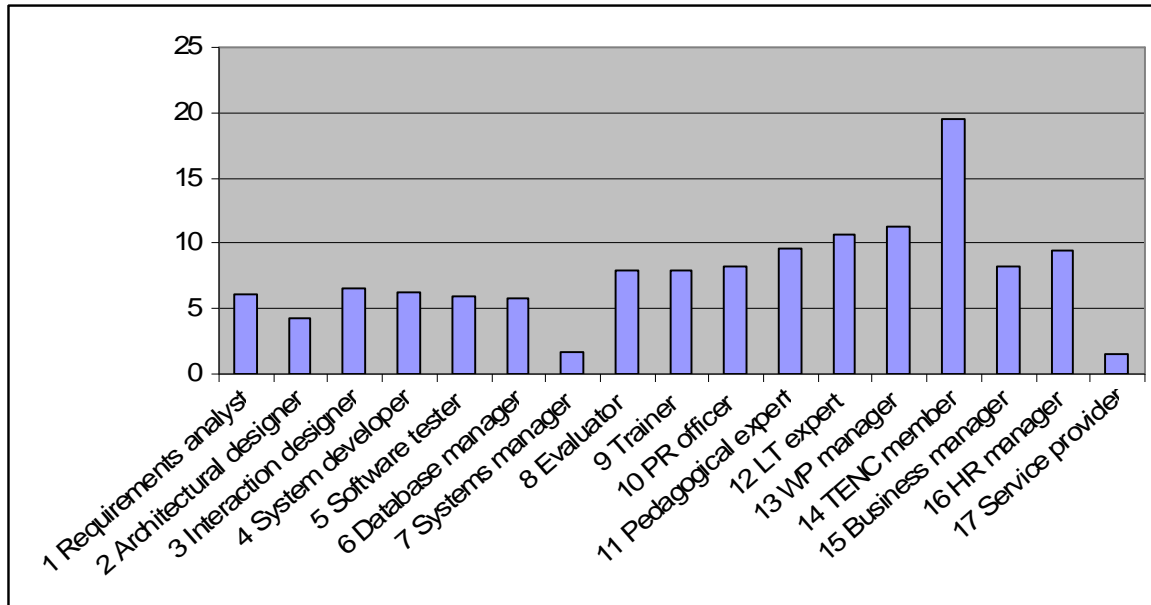


Figure 2: Competence profiles with average number of experts

7.6 Implementation

Initially, the competence gap analysis was carried out ‘manually’ on paper. We found we needed an opportunity to dynamically adjust our competence self-assessment and for that purpose the project considered its own system, with computer supported services for competence definition, positioning, navigation, and recommending, which, together, constitute the *Personal Competence Manager* (PCM) infrastructure. Hence, in the implementation of the training pilot, the TENCompetence tools under development where available were given priority (pre-release of the PCM) as described below.

On one of our servers we established the community TENCompetence Partners and created all the profiles and competences according to our skills audit above. The plan was that selected experts maintain this structure of competences and everybody should be allowed to create a competence development plan as well as to assign learning actions and resources to it. In this way, TENCompetence members were able to indicate their competence levels and improve their skills. The then-available pre-release version of the PCM, however, still had certain restrictions, for instance regarding various visualization facilities to support competence networks. This will be implemented in the future, including a mechanism providing each user with reasonable data protection mechanisms, where everybody can control which of her personal information is available to which user groups.

Despite the recent refocus to more authentic external pilots, following the comments made by the review panel, some important findings came out of the preparation phase for the training pilot. These included that people with a higher level of expertise are typically higher in demand and therefore have less time available to train others. It proved to be extremely difficult to motivate project members working under tightest schedules to find extra time for the provision of training and support.

The immaturity of the applications in this stage of the project were an additional barrier to derive benefits from this pilot. On the other hand, to delay the pilot to when the infrastructure is fully available would push the efforts too far down the timeline to be of benefit within the project period.

8. Conclusion

The efforts of WP9 to incept, plan, prepare and provide training to the TENCompetence consortium and associate partners have so far been largely dependent on the limited availability of the software and of quality learning content. In the reported phase of the project, emphasis therefore lay on the concepts of training in general, and on support of proof-of-concept actions. Towards the end of this phase already, and from now on, the focus shifted to supporting authentic learning situations through real-life pilots. This will lead to more and better insight into the actual implementation and application of the suite of tools and provide extra feedback to the RTD work packages.

The positive outcomes of this phase of the project was that WP9 has clearly identified its target audiences and procedures. It has established regularity in the provision of support of these target audiences (individual learners, PhD students and researchers, Associate Partners, etc.). The next step will see extensive production of targeted training materials for perusal by learners and implementers.

Appendix 1 – Virtual Lectures

We have collected virtual lectures from the following events and provide them as videos on demand to our PhD Network:

First European Workshop on Latent Semantic Analysis in Technology Enhanced Learning

29-30 March 2007 - Presentations and recorded keynotes at the 1st European Workshop on Latent Semantic Analysis in Technology-Enhanced Learning, OUNL. Latent Semantic Analysis (LSA) has been successfully deployed in various educational applications to enrich learning teaching and support with information-technology.

Virtual Conference Learning Networks in Practice

7-11 May 2007 - OUNL organized a virtual conference with *Learning Networks in practice* as the main topic. Many e-learning applications in the past tried to mimic traditional organizational frameworks for learning and competence development. The concept of learning networks, which is based on the co-construction of knowledge with other peer-learners, puts the learner in the centre of efforts at all levels (technical, organisational and instructional).

Keynote Rob Koper Dies Natalis 2007 OUNL

28 September 2007 – This is the keynote for the 23th Dies Natalis of the Open University of the Netherlands. In the keynote the need for a national infrastructure for lifelong learning is advocated. The requirements of the Digital Cinema area are used as an example and in the last section three research examples are addressed (personal competence manager, navigation in learning networks using collaborative filtering and the use of LSA to decrease teachers workload).

Appendix 2 – Web Seminars

These were our first web seminars:

20/05/2008

Learning with OpenLearn: Reflections upon the Learner and Provider Experiences

Andreia Inamorato dos Santos – Open Content Research Fellow, OpenLearn, Open University UK.

This seminar provided an overview of OpenLearn and discussed the main issues of open educational resources provision versus the learner experience. OpenLearn is the open content initiative at the Open University UK. It has been launched in April 2006 and is now approaching the end of the first two years of its funded activities. The seminar focused on the challenges and successes of OpenLearn and provided an opportunity for participants to explore the 'behind the scene' of this exciting venture. OpenLearn can be accessed at www.open.ac.uk/openlearn.

29/05/2008

What's so Special about Design Research?

Prof. dr. Peter Sloep – Educational Technology Expertise Centre, Open Universiteit Nederland

Scientific research usually refers to activities that contribute to concept and theory formation. Hypothesis testing through experiments is an important part of this. However, a different but no less important kind of research is about the creation of artifacts, tangible or non-tangible as in computer software, that are intended to serve particular functions. With respect to these, one should investigate whether they adequately serve the functions they are supposed to or whether alternatives are imaginable that do so more effectively, more efficiently, more elegantly, etc. For all the differences between both kinds of research, there are also important similarities. Concepts and theories also play a role in artifact building and testing. And in the course of building and testing artifacts, concepts and theories may need to be adjusted or new theoretical insights may be acquired. Furthermore, mathematical models and numerical simulations may help gain insight into the consequences of theoretical insights, but they also help gauge and constrain the behaviour of the artifacts to be developed. The seminar discussed the differences between 'ordinary' and design research, with a focus on the practical consequences one may infer for setting up and conducting design research.

17/06/2008

Classifying Pedagogical Methods: What's Out There?

Susanne Neumann (Heyer) – University of Vienna

Wouldn't it be great to have a map of pedagogical methods that would help you find your way around the realm of possible methods? Such a map (also called classification or taxonomy) has been repeatedly requested but has hardly been accomplished as yet. In this seminar, an overview of classification systems that aimed at classifying pedagogical methods or relevant components of pedagogical methods was given. Also, some results of analyses performed on a chosen portion of the classifications were brought forth for

discussion. The work presented builds the foundation for a revised approach to the development of a classification of pedagogical methods.

25/06/2008

Incorporating Cognitive/Learning Styles in a General-Purpose Adaptive Hypermedia System

Natalia Stash - Eindhoven University of Technology

In this presentation the presenter talked about the AHA! system (Adaptive Hypermedia Architecture) developed at Eindhoven University of Technology which can be used for creation and delivery of adaptive hypermedia applications. Traditionally, adaptive hypermedia systems are developed for specific application domains – *special-purpose* systems (e.g., educational systems, information kiosks, virtual museums, etc.) - and thus cannot be reused in other domains. AHA!, on the other hand, is targeting various application domains and is therefore called a *general-purpose* system. The author also discussed the approach to incorporating cognitive/learning styles (preferred ways of learning) in AHA! as a proof of the general-purpose character of the system.

Appendix 3 – Winter School 2007

The first TENCompetence Winter School took place on January 22-26, 2007 in Innsbruck (<http://www.tencompetence.org/node/116>). Its objective was to provide a means for an intense training and collaboration on the core topics related to the TENCompetence project, building the European Network for lifelong competence development. The event was intended especially for PhD students investigating the issues related to lifelong competence development and technology enhanced learning. The programme included lectures and hands-on sessions from leading experts in the field. Our ambition was to stimulate emergence of communities of practice and learning networks as well as to support joint research opportunities. To support it we established a special Moodle space (<http://www.partners.tencompetence.org/course/view.php?id=49>) for Winter School participants. An extensive photo report of this event is available as well (<http://www.flickr.com/photos/tags/tencws2007/>). The Winter School 2007 sessions covered the following topics:

- Technology Enhanced Learning
- Knowledge Management
- Education Process Modeling
- Learning Design
- Competence Development
- Personal Learning Environments
- Simulation & Game Based Learning
- Semantic Web
- Social Software
- Open Source & Open Standards
- Software Engineering with UML
- Web Services

17 lecturers (with one exception exclusively from the TENCompetence core partner institutions) led the sessions:

- Albert Angehrn, INSEAD, France
- Boyan Bontchev, Sofia University, Bulgaria
- Eric Bosten, LOGICACMG, the Netherlands
- Alexandar Dimov, Sofia University, Bulgaria
- Dai Griffiths, University of Bolton, United Kingdom
- Ralf Klamma, RWTH Aachen, Germany
- Rob Koper, Open University, the Netherlands
- Milos Kravcik, Open University, the Netherlands
- Ruud Lemmers, LOGICACMG, the Netherlands
- Carlos Mendez, Altran SDB, Spain
- Yongwu Miao, Open University, the Netherlands

- Daniel Olmedilla, UHANN, Germany
- Andrey Ruskov, Sofia University, Bulgaria
- Petko Ruskov, Sofia University, Bulgaria
- Wolf Siberski, University of Hannover, Germany
- Marcus Specht, Open University, the Netherlands
- Scott Wilson, University of Bolton, United Kingdom

30 attendees from 11 European countries participated in the event, additionally there were 5 TENCompetence developers working separately at the same place. The Winter School was organized by:

- Milos Kravcik, Open University, the Netherlands
- Christian Glahn, Open University, the Netherlands
- Marcus Specht, Open University, the Netherlands
- Mieke Haemers, Open University, the Netherlands
- Sabine Maassen, Open University, the Netherlands

The event took place near Innsbruck, an internationally renowned winter sport centre in Western Austria. The participants were staying in the Tiroler Bildungsinstitut – Grillhof, a renowned local educational conference centre maintained by the Tirolean Association of Teachers. The application fee was EUR 500 (including accommodation and meals for one week, excluding traveling expenses). 8 students received a grant and their institutions became TENCompetence associate partners.

The final programme included lectures, hands-on sessions, group work, a social event, as well as leisure activities and a guided tour:

Monday	
09:00-10:30	Winter School Official Opening TENCompetence & Technology Enhanced Learning – Milos Kravcik
10:30-11:00	Coffee Break
11:00-12:30	Education Process Modeling - Petko Ruskov
12:30-13:30	Lunch
13:30-14:30	Group Work
14:30-16:00	Learning Design: Achievements, Opportunities & Constraints – Dai Griffiths
16:00-16:30	Coffee Break
16:30-18:00	Education Process Modeling with Open Source Tools - Andrey Ruskov
Tuesday	
09:00-10:30	Open Source and Open Standards – Rob Koper
10:30-11:00	Coffee Break

11:00-12:30	Simulation and Game Based Learning – Albert Angehrn	
12:30-13:30	Lunch	
13:30-15:00	Designing Educational Games – Albert Angehrn	
15:00-16:00	Group Work	
16:00-16:30	Coffee Break	
16:30-18:00	Competence Development Perspectives – Marcus Specht	Service Oriented Architecture - Eric Bosten
Wednesday		
09:00-12:30	Sport Activities / Guided Tour	
12:30-13:30	Lunch	
13:30-14:30	Group Work	
14:30-16:00	Introduction to Semantic Web – Daniel Olmedilla, Wolf Siberski	
16:00-16:30	Coffee Break	
16:30-18:00	Introduction to Semantic Web – Daniel Olmedilla, Wolf Siberski	Learning Design Level B, C: Concepts and Tools – Yongwu Miao
Thursday		
09:00-10:30	Social Software and Perspectives for Learning – Ralf Klamma	
10:30-11:00	Coffee Break	
11:00-12:30	Social Software, Web 2.0 – Ralf Klamma	Using UML and the Unified Process – Ruud Lemmers
12:30-13:30	Lunch	
13:30-14:30	Group Work	
14:30-16:00	Web Services for e-Learning Environments – Boyan Bontchev	
16:00-16:30	Coffee Break	
16:30-18:00	Constructing Personal Learning Environments using Web 2.0 – Scott Wilson	
Friday		
09:00-10:30	Web Services for e-Learning Environments – Alexandar Dimov	Open Source Tools for Knowledge Management – Carlos Mendez
10:30-11:00	Coffee Break	
11:00-12:30	Students' Presentations Official Closing	
12:30-13:30	Lunch	

TENCompetence Winter School Evaluation

28 participants (including some lecturers) filled in the prepared evaluation forms and provided valuable comments and suggestions regarding this event.

Part 1: General Issues

1. Which aspects of the event were most beneficial for you?

Most of the respondents (17) identified networking with researchers and social aspects as most beneficial for them. Hands-on activities were also mentioned often (10). Generally, people liked the opportunity of focused learning, sharing knowledge with their peers, understanding new ideas, and constructing new knowledge and skills. All types of sessions were appreciated by the attendees, although individual preferences varied. The wide range of subjects and perspectives was received well. Participants liked also informal activities, social events, and coffee breaks. Some people named the most beneficial sessions for them: Game based learning (3), Web 2.0 (3), Social Software (2), Semantic Web (2), UML (2), SOA, Process modelling, and Competence development.

2. Which aspects of this event were least beneficial for you?

Some participants (7) did not like too technically oriented presentations, focusing on computer science (e.g. Web Services, Software Engineering, UML). For several people (6) workshops and group work were not interesting enough. One person suggested to “proof-read” the presentations, as some of them were too special and some too general, which was also observed by other attendees. For some individuals least beneficial were theoretical lectures, too user-oriented presentations without underlying technical principles, presentations with presumed knowledge (e.g. LD), “presentations where slide follows slide, but I don’t follow” and sessions not related to their interests.

3. What aspects were missing in this event according to your opinion?

A few participants (3) would have liked better organization of group work, especially concerning guidance, clear instructions, time, and objectives. A couple of people would prefer more students’ participation, presentations, and discussions during sessions. Weekend excursions and more social bonding events were missed too, according to a few respondents. There was one suggestion that before the Winter School students’ profiles should be published and their previous knowledge checked. Then there should be some recommendations for them (e.g. via questionnaire) for choosing between work groups and parallel sessions. For that purpose it would be also helpful if the presentations were available in advance. Other missing aspects or suggestions mentioned included best practice, benchmarking and metrics about lifelong learning and competence development, mobile and context aware learning, a workshop, as well as a gala dinner.

4. Please add any additional comments which will help us in planning the next Winter School.

Some people (3) commented about the group work – it should be bottom-up, with clear goals, instructions, tasks, problems to be solved. As participants have different backgrounds and interests, it may be a good opportunity to establish contacts with similar people. A very important point is to support continuation of the started activity. Some participants emphasized the importance of the practical part, with active participation of the audience, because “interactive sessions rule”. More time for social events and outdoor activities was also requested by a small number (3).

There was one suggestion concerning more preparation of students in advance (download and read materials), another pointed out that the schedule was overloaded and there was also a proposal to avoid parallel sessions. One lecturer suggested integration of different courses into one subject (e.g. modelling exercises about game-based learning). Another person remarked that the role of TENCompetence infrastructure needs to be defined.

One student would have liked more explanation of technical principles, considering a developer/domain expert approach. Again another thought that one Software Engineering session would be useful for some PhD students. A lecturer proposed a special session on “How to write a PhD”.

Other comments included a request for more information about location and resources (e.g. wireless access) as well as preparation of a Learning Design version of the Winter School activities.

Part 2: Organizational Issues

5. What do you think about the overall schedule (length of sessions, start/end times, breaks)?

Most attendants were satisfied with the overall schedule and appreciated that the program was not overloaded. For some of them (4) the parallel sessions caused a problem as they would like to attend both. Others (3) pointed out that some sessions were too long to fit in a 90 min slot with the consequence of need to faster processing of these sessions. A couple of persons would prefer two 45 min sessions instead of a 90 min one.

A few attendees (3) criticized delays and changes in the agenda. More time for group work, discussions and active participation of students was requested. Other remarks mentioned that learning and working 8 hours per day were too much, that afternoon sessions could start already at 2pm, and appreciated that free time in the evening is good for establishing contacts.

6. What do you think about the types of sessions?

Many participants (8) liked the wide range of the session subjects and types provided, as well as the balance between technical and theoretical / pedagogical sessions. Hands-on sessions were rather well received by the attendees (5 for it, 1 against), discussions and

students' presentations too, although even more participation of students was asked for and an opinion appeared (2) that there were too many traditional lectures.

Some individuals felt that there were big differences between individual lectures and lecturers, some sessions were irrelevant, the level of detail varied (e.g. SOA vs. Web Services), the user interface topics were missing, and that the developer / domain expert approach would be interesting. One has suggested running some technology and pedagogy sessions in parallel.

7. Do you have any comments regarding the overall organization?

The participants rated the organization of the event highly positive – 15 of them used the terms *very good* and *excellent*. Sightseeing and social events were received best. On the other hand there were also opinions that we should be more strict, lecturers should stay the whole week and give private consultations, the event was too long and 4 intensive days would be enough (ending in the evening), and dinner was too early.

8. How could we improve the organization?

Participants suggested several improvements: abstracts / slides should be available in advance, especially for parallel sessions, group work should be better organized and with clear objectives, a glossary of terms should be prepared for people new to some fields, and the presented slides should be “helpful”, i.e. without too much text.

Additional suggestions included a gala dinner, social evening events, one day for sport / social activities, more time for sport, as well as weekend excursions. People wanted to avoid programme changes, asked for a better internet connection, and for taking care about non-smokers (during breaks and social events).

Part 3: Course Specific Issues

The participants evaluated the sessions they have attended. The scores give the following meaning to their evaluation:

- 1= Very positive
- 2= Positive
- 3= Average
- 4= Negative
- 5= Very negative

The following table gives an overview over the ranking, showing for each session the number of evaluators and the average rating. Ratings of all contributions were in the positive range.

Title	Lecturer	Evals	Avrg
Simulation and Game Based Learning	Albert Angehrn	24	1.38
Learning Design: Achievements, Opportunities & Constraints	Dai Griffiths	22	1.64
Constructing Personal Learning Environments using Web 2.0	Scott Wilson	24	1.67
Unified Process: Effectively Combining UML Diagrams	Ruud Lemmers	13	1.69
Introduction to Semantic Web	Daniel Olmedilla, Wolf Siberski	22	1.73
Web Services for e-Learning Environments	Alexandar Dimov	8	1.75
Social Software and Perspectives for Learning	Ralf Klamma	21	1.81
TENCompetence & Technology Enhanced Learning	Milos Kravcik	25	1.88
Open Source and Open Standards	Rob Koper	26	2.00
Competence Development Perspectives	Marcus Specht	11	2.00
Open Source Tools for Knowledge Management	Carlos Mendez	20	2.30
Education Process Modeling with Open Source Tools	Andrey Ruskov	21	2.43
Service Oriented Architecture	Eric Bosten	12	2.50
Education Process Modeling	Petko Ruskov	23	2.52
Web Services for e-Learning Environments	Boyan Bontchev	23	2.91

Part 4: Geographical Spread and Impact of Adoption

26 participants also rated other indicators, using the following scale:

High 1 – 2 – 3 – 4 – 5 Low

The uptake of lifelong learning in their country was in general evaluated as average (3.04), the use of technology in the delivery of lifelong learning in their country even lower (3.27). The support which TENCompetence will eventually offer to help develop competences in lifelong learning was rated higher than average (2.04).

An important input for WP9 were responses to the question: ‘What support do you hope to get from TENCompetence to organize your lifelong learning process, once the infrastructure is available for general access?’

People asked for user support in the form of manuals, guidelines, tutorials, consultations, and training (6). They also wanted to share best practice examples in communities (4) and consider enough content as a critical part, especially for finding relevant study materials easily (4). Reliable technical infrastructure was perceived important too (3).

Some persons hoped the TENCompetence tools will help them identify their weaknesses and remedy them, as well as helping them in improving existing knowledge (2), others wanted to create their own contributions easily (2). There were a few opinions that a personal competence profile may be useful for job searching and for finding study peers,

as well as that the infrastructure will provide a workspace for exchanging resources and for collaboration.

Several participants expect cooperation in future projects and with other professionals (3). Some of them would like to investigate pedagogical and learning design models.

Part 5: Participation

When asking attendants whether they were willing to participate in the TENCompetence project, we received a very positive response. All the respondents wanted to further participate in the project! They would even stay involved as individuals in cases where their department does not have resources for this purpose.

6 people answered that they wanted to participate in research (models, scenarios, assessment – e.g. in the form of a joint paper), another 6 intended to contribute in programming development and customization. 4 were interested in evaluation and tests, and finally a few of them expressed an interest in helping with dissemination (visiting and organizing events) and training (tutorials).

One lecturer offered scientific advice and reviewing activities, while 2 students wanted to be part of the PhD Researcher Network and of a Community of Practice. Several people wanted to be continuously informed about activities and achievements of the project. One PhD student received a scholarship that enables him to visit another research group for several months.

The main areas of interest are competence models, learning activities, modeling pedagogical workflows, process modeling, IMS LD, IMS QTI, e-learning platform, authoring tools, personalized adaptive learning, and adaptive testing.

Appendix 4 – Winter School 2008

The second TENCompetence Winter School took place on February 18-22, 2008 again in Innsbruck (<http://www.tencompetence.org/node/154>). It was considered as an intense training and collaboration event on the core topics related to the TENCompetence project, building the European Network for lifelong competence development. [The first TENCompetence Winter School](#) received very positive feedback from the attendees. The main theme of the second one was Personal Competence Management. The programme included lectures and hands-on sessions from leading experts in the field. As a result from the evaluation of the previous event, this time we offered more space for interactive sessions, informal discussions, group work, and students' presentations. Our ambition was to stimulate emergence of communities of practice and learning networks as well as to support joint research opportunities. PhD students and other interested people from the [PRO-LC Cluster](#) as well as from outside were invited to participate and to become part of the TENCompetence research community. To support it we have established a special space on our Moodle server (<http://www.partners.tencompetence.org/course/view.php?id=58>) for the Winter School participants. A collective photo report from this event is available as well (<http://flickr.com/photos/tags/winterschool2008/>). The Winter School sessions comprised the following topics:

- Personal Competence Development
- Web 2.0 Style Competence Development in Communities of Practice
- Increasing Global Organizational Competence
- Knowledge Management & Organizational Learning
- Simulation & Game Based Learning
- Digital Identity and Presence in Learning Networks
- Personalization in E-learning
- Knowledge Representation & Authoring in Adaptive Education
- Specification & Use of Policies
- Instructional Design
- Sales Process Application of Competence Frameworks
- Evaluating Personal Competence Management
- Evaluation of Knowledge Management Systems
- Personal Competence Manager (PCM)
- Integrating Your Software with the PCM Services

14 lecturers (with four exceptions exclusively from the TENCompetence core partner institutions) lead the sessions:

- Albert Angehrn, INSEAD, France
- Ken Currie, CAPDM Ltd., United Kingdom
- Ralf Klamma, RWTH Aachen, Germany
- Milos Kravcik, Open University, the Netherlands

- Ruud Lemmers, LOGICACMG, the Netherlands
- Ronald Maier, University of Innsbruck, Austria
- Katrina Maxwell, INSEAD, France
- Linda Napoletano, Giunti Labs, Italy
- Ambjörn Naeve, Royal Institute of Technology, Sweden
- Daniel Olmedilla, UHANN, Germany
- Judith Schoonenboom, University of Amsterdam, the Netherlands
- Marcus Specht, Open University, the Netherlands
- Scott Wilson, University of Bolton, United Kingdom
- Iwan Wopereis, Open University, the Netherlands

36 attendees from 11 countries (not only from the E.U., but also U.S.A. and Russia) participated at the event. The Winter School was organized by:

- Milos Kravcik, Open University, the Netherlands
- Christian Glahn, Open University, the Netherlands
- Marcus Specht, Open University, the Netherlands
- Wolfgang Greller, Open University, the Netherlands
- Mieke Haemers, Open University, the Netherlands
- Sabine Maassen, Open University, the Netherlands

The event was held again near Innsbruck, Austria, at the Tiroler Bildungsinstitut – Grillhof, a renowned local educational conference centre maintained by the Tirolean Association of Teachers. The application fee was EUR 500 (full board accommodation for one week, excluding traveling expenses).

The final programme included lectures, hands-on sessions, group work, a social event (on Monday evening), as well as leisure activities:

Sunday	
18:00-19:00	Dinner
Monday	
08:00-09:00	Breakfast
09:00-10:30	TENCompetence Principles & Personal Competence Development – Milos Kravcik
10:30-11:00	Coffee Break
11:00-12:30	Semantic matching of Learning Resources based on Competency Gaps - The LUISA approach – Ambjörn Naeve
12:30-13:30	Lunch
13:30-15:00	From Knowledge Portals to Knowledge Infrastructures for Maturing Knowledge – Ronald Maier

15:00-15:30	Coffee Break	
15:30-16:30	Personal Competence Manager 1 – Ruud Lemmers, Chris Kew	Optional Sessions
16:30-18:00	Personal Competence Manager 2 – Ruud Lemmers, Chris Kew	Communicative Modeling as a way to increase organizational performance – Ambjörn Naeve
18:00-19:00	Dinner	
19:00-20:00	Optional and informal reflection of the day	
20:00-24:00	Social Event	
Tuesday		
08:00-09:00	Breakfast	
09:00-10:30	Evaluating Personal Competence Management – Judith Schoonenboom	
10:30-11:00	Coffee Break	
11:00-12:00	EduSynergy - a SmallWorld Simulation 1 – Albert Angehrn, Katrina Maxwell	
12:00-12:30	Lunch	
12:30-16:00	> EduSynergy - a SmallWorld Simulation 2 – Albert Angehrn, Katrina Maxwell	
16:00-16:30	Coffee Break	
16:30-18:00	A Sales Process Application of Competency Frameworks – Ken Currie	Optional Sessions
18:00-19:00	Dinner	
19:00-20:00	Optional and informal reflection of the day	
Wednesday		
07:00-08:00	Breakfast	
08:00-09:30	Web 2.0 Style Competence Development in Communities of Practice – Ralf Klamma	
09:30-10:00	Coffee Break	
10:00-11:30	Personalization in e-Learning – Marcus Specht	Optional Sessions
11:30-12:00	Break	
12:00-18:00	Sport & Leisure Activities	
18:00-19:00	Dinner	
19:00-20:00	Optional and informal reflection of the day: Get a First Life - Ambjörn Naeve	

Thursday		
08:00-09:00	Breakfast	
09:00-10:30	Introduction to Specification and Use of Policies – Daniel Olmedilla	Optional Sessions - Experience with Social Software in Learning
10:30-11:00	Coffee Break	
11:00-12:30	Analysis and Evaluation of Knowledge Management Systems 1 – Linda Napoletano, Wolfgang Greller	Optional Sessions - Interoperability
12:30-13:30	Lunch	
13:30-15:00	Analysis and Evaluation of Knowledge Management Systems 2 – Linda Napoletano, Wolfgang Greller	Ten Steps to Complex Learning 1 – Iwan Wopereis
15:00-15:30	Coffee Break	
15:30-17:00	Knowledge Representation & Authoring in Adaptive Education – Milos Kravcik	Ten Steps to Complex Learning 2 – Iwan Wopereis
17:00-18:00	Integrating Your Software with PCM Services – Ruud Lemmers	Optional Sessions - TENCompetence PhD Network
18:00-19:00	Dinner	
19:00-20:00	Optional and informal reflection of the day: J4 Strategy - Ton van der Moolen	
Friday		
08:00-09:00	Breakfast	
09:00-10:30	Digital Identity Management: Presence & OpenID – Scott Wilson	
10:30-11:00	Coffee Break	
11:00-12:30	Summary and Closing Discussion	
12:30-13:30	Lunch	

TENCompetence Winter School Evaluation

23 participants (including one lecturer) have filled in the prepared evaluation forms and provided valuable comments and suggestions regarding this event.

Part 1: General Issues

1. Which aspects of this event were most beneficial for you?

Similar to 2007, most of the respondents (14) identified social networking supported by informal discussions during breaks (8) as most beneficial for them. As one participant

formulated it, “the interplay between sessions and coffee breaks” was the aspect that she liked most. Interactive, hands-on activities and workshops were well received again (4). Some attendees appreciated diversity of people and topics as well as the interdisciplinary mix of lectures. Several concrete sessions were named as most beneficial: EduSynergy simulation (2), Web 2.0, Semantic Web, the LUISA approach, pedagogical theories, personalization and authoring in adaptive education. One lecturer (TENCompetence developer) appreciated feedback from PCM users. A couple of people mentioned also the nice physical environment among the positive aspects.

2. Which aspects of this event were least beneficial for you?

Critical views were mentioned occasionally too. A few of the participants were not satisfied with the Internet access and would have preferred a higher quantity and quality of workshops and group work. A few people disliked the sales approach of one person, who according to them did not integrate well into the collaborative nature of the event. Some individuals did not like parallel sessions, optional seminars, one technical session for programmers (“a more detailed guide would be helpful”), too long evening sessions, cold buffet for dinner, and one named also the session on Analysis and Evaluation of Knowledge Management Systems. Compared to 2007 discontent with technical presentations (7), as well as workshops and group work (6) was this time reduced to minimum.

3. What aspects were missing in this event according to your opinion?

Similarly to 2007 several participants (3) missed more space for presentation of their own work and suggested poster sessions for this purpose. A couple of them would like lectures on theoretical foundations of competences, competence development, learning theories and models. There were also individual suggestions regarding a doctoral consortium, mentor program, more open sessions, group discussions, interactive sessions, workshops about methods, closing event, as well as TENCompetence research status.

As a consequence of this feedback some of the topics will be taken up by the online seminar series that WP9 is organizing in addition to the Winter School.

4. Please add any additional comments which will help us in planning the next Winter School.

Here again, some participants (3) asked for more opportunities of their own presentations and interactions, suggesting poster sessions. An important issue is the identification of common interests among people, which can be supported by their descriptions in personal profiles, together with visual representation of mutual connections and networks of attendants. Panel and focused group discussions as well as games for getting to know each other have been recommended. The remaining remarks mentioned a need for better Internet access (especially in the bedrooms), opportunity to go to town (before dinner), and inclusion of drinks into meal calculation. One comment: “Excellent job, keep up this good work!”

Part 2: Organizational Issues

5. What do you think about the overall schedule (length of sessions, start/end times, breaks)?

Almost all the participants were very satisfied with the overall schedule, using several times terms like “perfect”. Some people (4) would have preferred more or longer breaks for informal discussions. In some special cases the breaks were shortened or omitted, which caused certain unhappiness. Like before, in case of parallel sessions, it was sometimes hard to choose, as indicated by a couple of attendees. Also evening optional sessions should have certain negotiated parameters. Some individuals would prefer shorter sessions, especially for less interactive presentations. On the other hand, open sessions could be longer as more time to reflect is needed.

6. What do you think about the types of sessions?

Again we see a wide variation of expressed opinions. Participants (14) liked the good variety and balance of the session types. Like before, several of them (5) stated explicitly their strong preference for interactive sessions, such as workshops, hands-on, guided discussions. One person suggested beginning with introductory sessions, then a special subject on each day, and finally a “big picture” summary. Another one asked for more theory based lectures. Also here a couple of people expressed their opinion that parallel sessions offered more variety, but sometimes it was difficult to choose. A recommendation appeared that the commercial aspect could be avoided.

7. Do you have any comments regarding the overall organization?

The event organization was regarded very well by the attendees (12), using words like *perfect* and *excellent*. A returning attendant said: “last year was good, this year even better!” People liked the discussion forum to get in touch in advance, the event location, and cooperative attendees. Individuals would appreciate more flexibility from Grillhof staff and better Internet connection; others better organization of leisure activities and one “was unimpressed by the sales approach of one participant”.

8. How could we improve the organization?

Some people thought it would be hard to improve the organization and we should keep doing what we are doing. Group sessions with several presenters and discussions on a common concept were well received. One person would have liked easier access to presentations and others recommended a proper web-interface for organization issues (“Moodle is not working for this purpose”), using open space methods (especially for the start) and maybe aggregated workspace from Web 2.0 tools (blog, del.icio.us, flickr, etc).

One participant would have liked to have more information on the leisure activities before driving to Innsbruck (to bring his own equipment).

Part 3: Course Specific Issues

The participants evaluated the sessions they attended. The scores give the following meaning to their evaluation:

- 1= Very positive
- 2= Positive
- 3= Average
- 4= Negative
- 5= Very negative

The table below gives an overview of the ranking, showing for each session the number of evaluators and the average assessment. The average rating oscillates around positive, with the mean ranking 2.03 (from 285 marks altogether), which is very similar to the previous year (2.01 from 295 marks).

Note that the session Analysis and Evaluation of Knowledge Management Systems was not evaluated due to an error in the evaluation form. We apologize for that.

The sessions without assigned lecturers were optional and organized by participants to present their results and discuss on specific issues.

Title	Lecturer	Evals	Avrg
EduSynergy - a SmallWorld Simulation	Angehrn	23	1.35
Personalization in e-Learning	Specht	20	1.60
Digital Identity Management: Presence & OpenID	Wilson	20	1.65
Knowledge Representation & Authoring in Adaptive Education	Kravcik	13	1.69
Introduction to Specification and Use of Policies	Olmedilla	13	1.69
Experience with Social Software in Learning		10	1.70
Integrating Your Software with PCM Services	Lemmers	9	1.89
Communicative Modeling as a way to increase organizational performance	Naeve	15	1.93
Personal Competence Manager	Lemmers	21	1.95
Semantic matching of Learning Resources based on Competency Gaps - The LUISA approach	Naeve	21	1.95
TENCompetence PhD Network		7	2.00
Interoperability		4	2.00
TENCompetence Principles & Personal Competence Development	Kravcik	21	2.05
From Knowledge Portals to Knowledge Infrastructures for Maturing Knowledge	Maier	23	2.13
Web 2.0 Style Competence Development in Communities of Practice	Klamma	21	2.38

Evaluating Personal Competence Management	Schoonenboom	20	2.65
Ten Steps to Complex Learning	Wopereis	12	3.17
A Sales Process Application of Competency Frameworks	Currie	12	3.25

Part 4: Geographical Spread and Impact of Adoption

23 participants rated also other indicators, using the following scale:

High 1 – 2 – 3 – 4 – 5 Low

The uptake of lifelong learning in their country was in general evaluated as average (3.09), the use of technology in the delivery of lifelong learning in their country even lower (3.32). The support which TENCompetence will eventually offer to help develop competence in lifelong learning was rated higher than average (2.14). All these indicators were slightly lower than one year ago.

Question 13: What support do you hope to get from TENCompetence to organize your lifelong learning process, once the infrastructure is available for general access?

People expected a PCM framework with user-friendly interface to be able to use it in their projects. They expressed a need for organizational and infrastructural support by means of learning networks (PhD network, sustaining network of experts), tools, and resources. They wanted to participate in project seminars and workshops as well as to organize events. Some of them would like to apply the outcomes in their own research and write papers.

Part 5: Participation

To the question ‘are you willing to participate in the TENCompetence project?’, 13 people expressed their interest in participating in the project and several are already part of it. They wanted to participate mainly in the PhD network to exchange ideas, do research, projects, but also write papers and attend events. Some of them wanted to program and develop learning tools and resources.

Appendix 5 – List of Associate Partners

Overview signed Memoranda of Understanding Status May 2008						
nr	Between	and	signed	Activity	Type	Role
1	TENCompetence Consortium	University of Wollongong, Australia	23-01-2006	Visiting Scholars Programs. Joint research, trial and joint implementations. Joint applications for research funding. Joint scholarly publications and events. Training-pilots, use of LSA for use cases. Contact: Rob Koper	HE	User organisation
2	TENCompetence Consortium	LORENET (LICEF), Canada	07-09-2006	Distinguished Visiting Scholars Programs. Joint publications Joint applications for research funding. Co-experimentation and validation of LT. Contact: Rob Koper	HE	User organisation
3	TENCompetence Consortium	Institute of Informatics and Software Engineering, Slovak University of Technology in Bratislava, Slovakia	12-12-2006	Pilots with integrated system, evaluation and dissemination. Contact: Milos Kravcik	HE	User organisation
4	TENCompetence Consortium	Department of Information Technologies, Vilnius Gedimas Technical University, Lithuania.	18-12-2006	Collaboration and exchange of achievements. Contact: Milos Kravcik	HE	User organisation /Active in lifelong competence development
5	TENCompetence Consortium	EiFeL, European Institute for e-learning	18-12-2006	Future user, technology service provider to members, promotion of best practices, dissemination.	Network	User organisation /Active in lifelong competence development

nr	Between	and	signed	Activity	Type	Role
6	TENCompetence Consortium	Srednja ekonomska sola Maribor, Slovenia	20-12-2006	Dissemination and collaboration in LD., knowledge and competence development, education process modelling. Contact: Milos Kravcik	HE	
7	TENCompetence Consortium	The Computer Architecture and Technology Department, University of Seville, Spain	03-01-2007	IMS-LD pedagogic CATD scenario. Evaluation of CATD support tools in Seville university. Contact: Milos Kravcik	HE	Active in lifelong competence development
8	TENCompetence Consortium	Tallinn University, Estonia	10-01-2007	Exchange of doctoral students. Joint virtual research seminars. Dissemination in Baltic region. Contact: Milos Kravcik	HE	Active in lifelong competence development
9	TENCompetence Consortium	ELearning Technology R & D Laboratory, Technical University, Sofia, Bulgaria	25-01-2007	Joint training and activities. Collaboration in pilot and software component development. Contribution to use cases. Contact: Milos Kravcik	HE	Technology provider
10	TENCompetence Consortium	The Learning Societies Lab, University of Southampton, United Kingdom	25-01-2007	Technical exchange, workshops. Joint publications. Joint bids, consultation on strategic issues. Contact: Milos Kravcik	HE	Active in lifelong competence development
11	TENCompetence Consortium	Faculty of Mathematics, Physics and Informatics Comenius University of Bratislava, Slovakia	25-01-2007	Pilot .design prototype of adaptive testing, test with math students. Disseminate and evaluate field test Contact: Milos Kravcik	HE	User organisation

nr	Between	and	signed	Activity	Type	Role
1 2	TENCompetence Consortium	IBBT Acknowledge	09-02-2007	Future user and learning service provider Contact: Marlies Bitter.	Institution	User organisation /Service provider
1 3	TENCompetence Consortium	Peoples Open Access Education Initiative	26-03-2007	Application of prototypical tools with health workers, doctors. Report on test results Contact: Marlies Bitter	Initiative	User organisation
1 4	TENCompetence Consortium	Bulgarian Investment Consulting Agency	12-04-2007	Dissemination of best practices in Bulgaria. Promotion and assessment of new opportunities. Contact: Chris Kew	Institution	Active in lifelong competence development
1 5	TENCompetence Consortium	Grupo de Investigación EVALFOR , Facultad de Ciencias de la Educación Departamento de Didáctica, Puerto Real Universidad de Cádiz	19-04-2007	Participation in pilots, demonstrators, dissemination for Latin America, Mediterranean area. Create, store and interchange learning activities and units of learning. And competence development programs. Contact: Marlies Bitter	HE	User organisation
1 6	TENCompetence Consortium	MGA Education Ltd.	19-04-2007	Data tracking and analysis. Develop business models for lifelong learning and corporate social responsibility. Run pilots, standardized learning competencies in engineering. Contact: Chris Kew	SME	User organisation

nr	Between	and	signed	Activity	Type	Role
1 7	TENCompetence Consortium	Claude Martin Association "Une idée derrière l'écran".Arles, France	21-05-2007	Identification of partners for testing, software and best practices. Tested activities in France plus result reports.	Initiative	Active in lifelong competence development
1 8	TENCompetence Consortium	ICT in Education Directorate – Ministry of Education and Sciences, Republic Bulgaria,	30-06-2007	Organisation of pilot training in Bulgarian schools. Use of Bulgarian e-learning resources the Training networks for lifelong competence development. Use of existing TENCompetence learning resources via Bulgarian National Education Portal Joint activities.	Government	User organisation
1 9	TENCompetence Consortium	Grupo de Investigación de Tecnología Educativa (GITE) Universidad de Murcia	27-8-2007	Exchange of doctoral students; Joint virtual research seminars Joint publications Field tests Dissemination to Spanish speaking countries in Latin America	HE	Active in lifelong competence development

nr	Between	and	signed	Activity	Type	Role
20	TENCompetence Consortium	Vereniging Openbare Bibliotheken, Netherlands Public Library Association, (VOB)	24-08-2007	<p>Joint virtual workshops and activities. Joint publications and presentations.</p> <p>Tests of TENCompetence concepts and tooling for library and librarian professionals, with special attention to the youngsters.</p> <p>Dissemination of TENCompetence results for Dutch library sector.</p>	Government	Active in lifelong competence development/ User organisation
21	TENCompetence Consortium	Raycom BV The Netherlands	1-10-2007	Open source software development, running pilots and sharing practice with respect to IMS LD, Open Educational Resources and e-Portfolio's	SME	Technology Provider
22	TENCompetence Consortium	Athabasca University New upload of signed and countersigned 27-11. 2007 MOU version.	07-12-2007	<p>Create a learning community for LLL</p> <p>Develop workshop for N. American users of TENCompetence infrastructure</p> <p>Distinguished visiting scholar program. Joint publications</p> <p>Joint application for research funding</p> <p>Joint experimentation & validation</p>	HE	User organization / Active in lifelong competence development

nr	Between	and	signed	Activity	Type	Role
2 3	TENCompetence Consortium	CAPDM, CAPDM limited Edinburgh. http://www.capdm.com/capdmweb/Home.html	05-03-2008	<p>Joint EU funded R&D projects on competence frameworks and education.</p> <p>Development of exemplar (XML) competence frameworks and standards (proof of concept/demonstrators) for specific industries and subjects</p> <p>Mutual dissemination of pragmatic practice</p> <p>Exploration of construction and evaluation of successful competency based learning environments</p>	SME	Technology Proviser
2 4	TENCompetence Consortium	JISC regional support center Wales	27-02-3008	<p>Promotion of TENCompetence in Wales</p> <p>Identification and broker pilot partners/projects.</p> <p>Support pilot projects</p> <p>Disseminate project findings</p>	Government	Active in lifelong competence development

nr	Between	and	signed	Activity	Type	Role
2 5	TENCompetence Consortium	Empower Limburg	2 -4-2008	<p>Joint definition cross sector competence profiles</p> <p>Operationalization of these profiles in behavioural indicators</p> <p>Piloting and evaluation of tools for PDP</p> <p>Exploration of shared business model for regional competence development</p> <p>Organization of workshops</p>	Government	User organization / Active in lifelong competence development
2 6	TENCompetence Consortium	Agro-Know Greece	29-4-2008	<p>Participation in TENCompetence events</p> <p>Connecting rural communities AgroKnow to TENCompetence</p> <p>Connection Agroknow-TENCompetence services</p> <p>Design, piloting of business model Agroknow-TENCompetence</p>	SME	Service provider/ User organisation
2 7	TENCompetence Consortium	Salzburg research Forschungsgesellschaft Austria	29-5-2008	<p>Joint special tracks in events/conferences</p> <p>Joint co-operation on common research topics</p> <p>Participation TENCompetence Winterschool</p> <p>Joint research and dissemination</p>	Institution	Active in lifelong competence development