D9.3 TENCompetence Training Report
(Aggregating Internal Deliverables ID9.12-ID9.17)

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1. Executive Summary

This deliverable 9.3 (D9.3) is an aggregated report from a number of Internal Deliverables (ID9.12 – ID9.17) that were produced during the period of month 30 – 42 covered by the Detailed Implementation Plan DIP-3.

Activities within WP9 by and large followed the direction taken already in earlier phases of the project and in DIP-2. This deliverable then 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 stage of the project.

1.1 Achievements

A network of Associate Partners had already been created in 2007 with a considerably high number of interested organisations joining during the first year of its inception. This network was growing further (see list in Appendix 3). Response to pro-active invitations to events was still at a low level at this stage, so the emphasis in the project was shifted to conducting Business Demonstrators instead. 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).

In this phase of the project, pilot implementations played the most important role for input to further technical developments. This was taken on board by WP9 in providing support for these test implementations, both to implementers and to end users. WP9 also continued to provide a fertile environment for the creation and exchange of new knowledge in the fields of competence development and personal learning. Another residential Winter School, building on the success of the previous events, together with an online platform for continued collaboration were organised to bring researchers together in order to exchange knowledge. Modern means of social networking were exploited to enhance reach and access to these activities.

WP9 fully supported the implementation of pilots and Business Demonstrators who started using the TENCompetence toolset. Additional support came from the newly created Taskforces, which have a cross-WP remit, by reviewing software and manuals and investigating requirements. In reaction, WP9 developed user manuals, worksheets, videos and end-user training events, which are also freely available to interested general stakeholders.
1.2 Adjustments to Planning and Constraints

Although WP9 largely stuck to its planned route already taken during DIP-2, some adjustments needed to be made due to two major shifts in the project: (1) the adoption of a portal environment, and, (2) the introduction of taskforces. Another change was the recommendation by the reviewers in M38 to move away from academic focus and more into business environments. These adjustments came about during the latter stages of this deliverable, and affected how later internal deliverables were approached.

While this deliverable is concerned with plans under DIP-3 alone, there is an overlap of 6 months with the new planning period DIP-4. For this deliverable it means that partly internal deliverables fall under the former and partly under the latter project plan. However, this overlap only sees a consolidation of target groups, but leaves the original tasks and internal deliverables in place. The above mentioned major changes, however, required a strong commitment from WP9 towards the implementation environment managed by WP4 (pilots and validation) and Taskforce15 (evaluation and testing), which is managed by WP2 (requirements of the integrated system).

The availability of the new portal environment (Liferay) is not foreseen before the end of month 42, thus training on this particular matter now falls outside the reporting period covered in this document.

Wolfgang Greller
June 2009
2. Introduction

Training is an ongoing activity within the project and has no clear cut-off points. Hence the aggregation of internal deliverables in this document presents a collection of snapshots of accomplishments at their dates of delivery. This, however, does in most cases not mean that this activity was and is confined to the specific period of the internal deliverable, but typically had a precursor and is still ongoing after that date.

The efforts of WP9 to incept, plan, prepare and coordinate training to the TENCompetence Consortium and Associate Partners have so far been largely dependent on the availability of the software and of quality learning content. In the reported phase of the project, emphasis lay on implementation pilots and starting up Business Demonstrators.

WP9 already succeeded in identifying its target audiences and procedures. Starting from this perspective we tried to establish regularity in the provision of support for these target audiences (individual learners, PhD students and researchers, Associate Partners, etc.), and to produce targeted training materials for perusal by learners and implementers.

In deliverable 9.1 (D9.1: http://dspace.ou.nl/handle/1820/879) we 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.

Deliverable 9.2 (D9.2: http://dspace.ou.nl/handle/1820/1301) strongly built on this foundation work and collated evidence of putting this plan into action. In D9.3 now, we continue this direction. As mentioned earlier, deliverable D9.3 is not an independent product, but a compilation of a number of partly independent internal deliverables. The IDs underlying it are in themselves stand-alone products and are all available on DSpace (http://dspace.ou.nl/handle/1820/497/browse-date).

This deliverable D9.3 aims to collate and combine a number of internal deliverables in a more or less coherent narration. In some cases IDs could not be replicated in full so will only be represented as excerpts.

The aim of the report is to present TENCompetence training activities during project month 30 (May 2008) and project month 42 (May 2009). As such we also want to refer the reader to the annual report for year 3 which contains details of activities during reporting period of M25-M36, and therefore, unavoidably, has a large overlap with this report. The activities were based mainly on the plan presented in the Detailed Implementation Plan DIP-3 (month 25-42) and partially also on the Detailed Implementation Plan DIP-4 (month 37-48).
Under DIP-3 we specified four core tasks for WP9, each task led by one of the five partners involved in this WP:

**Task 9.1: Maintain the TENCompetence Network for PhD Students**
This includes the organization of Winter Schools, Competence Networks, and Web Seminars.
Task leader: OUNL. More on this task is found in section 3 of this report.

**Task 9.2: Organize Training for Consortium and Associate Partners**
This covers internal training needs for pilots (including manuals, help files) and development work carried out by Consortium partners. It entailed the organization of workshops and delivery meetings for TENCompetence partners and APs. Furthermore, the task covered training events for general stakeholders. This included demos, introductory tutorials and workshops at relevant events (conferences, open days, fairs, etc.) to attract new users.
Task leader: The University of Bolton was chosen to lead this task due to their activities in dissemination and liaison. More on this task is found in section 4 of this report.

**Task 9.3: Maintain the TENCompetence Network for Associate Partners**
This involved close collaboration with WP10, and maintenance of MoUs signed by third parties. It also comprises the organization of special events for SMEs and involvement of Associate Partners in TENCompetence activities.
Task leader: SURF has a wide network of contacts and experience in this field and typically maintains a presence at high-profile events. More on this task is found in section 5 of this report.

**Task 9.4: Create a Strategic Vision for a Network of Service Providers**
This was a new activity under DIP-3, which tried to build some high-level approach to making TENCompetence output available to third party providers of services (e.g. consultants, human resource departments).
Task leader: LOGICA was chosen to lead this particular task due to their experience of working with SMEs and businesses.

The structure of this document is based on these four tasks, as this was our main plan through most of the reported time interval. By the end of the period, in the Detailed Implementation Plan DIP-4 (month 37-48) these tasks were revisited and, where necessary, redefined. During the reported time period, WP9 partners met regularly at the quarterly project meetings and, additionally, organized a number of 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 9.1 – 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, including a one-week Winter School event for the third consecutive year. Promoting the emergence of a Competence Network for PhD students is an important task in the project. In the reported period the Web 2.0 services have been used more intensively to support our network.

Another addition to previous activities was the online research seminars series that WP9 organised to bridge the time between Winter Schools and to provide a forum for PhD students to meet and learn together.

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 encompasses support for research and development through appropriate training. We tried to apply the TENCompetence tools as they 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,
- Networks for Lifelong Competence Development.

Although the 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 space on our Moodle server (113 on 12 May 2009). In addition, we have set up a LinkedIn group for the members of our learning network (63 members on 12 May 2009).
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. 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 virtually (online web seminars) or live (Winter School, workshops, tutorials).

In the period covered by this document newer approaches were tried to keep the interaction flowing between members of the network. We used modern social networks to share relevant information. As an example a professional group was created in LinkedIn (http://www.linkedin.com/groups?gid=1776107) with the title “TENCompetence Learning Network”. It has to date gathered 65 subscribers (20 May 2009). Another platform we introduced for sharing social content such as bookmarks, blog posts and photos was Remashed (http://remashed.ou.nl/) a content aggregator developed by one of the OUNL PhD students (48 members in April).

In February 2009, the third TENCompetence Winter School was organised and held near Innsbruck (http://www.tencompetence.org/node/167). It was conceived as an intensive training and collaboration event on the core topics related to the TENCompetence project. The main theme this year was "Competence Management in Learning Networks". The programme included lectures and hands-on sessions from leading experts in the field. There was also room for personal interactive sessions, group work, and student presentations. To support pre- and post-event communication, we established an open space on Moodle for participants A main ambition was to stimulate emergence of communities of practice and learning networks as well as to support joint research opportunities. Altogether 45 people participated at the Winter School. In addition to our Moodle server, various Web 2.0 services were used to support the participants – Twitter, SlideShare, Delicious, Flickr, YouTube, and LinkedIn. A photo report is available on the flickr photo sharing site (http://flickr.com/photos/tags/winterschool2009/). Based on the received formal and informal feedback we can consider the TENCompetence Winter Schools very successful training events that helped to get together people interested in the relevant topic of lifelong competence development and to support exchange of the state-of-the-art research results in this field. It would be good if the established tradition could continue in the future, perhaps supported by other projects. A full summative report (ID9.12) is given in Appendix 1. The Winter School was organised by OUNL as the lead partner in T9.1.

Web seminars were introduced in May 2008 to support researchers and PhD students in between Winter Schools. These are video presentations or virtual meetings of researchers and students in cyberspace to introduce relevant topics and to discuss them. We invited experts in a field to present and discuss topics that are of interest to the members of the PhD Network. The virtual platforms Adobe Connect and Elluminate were used for this purpose as an online seminar space. Promoting successful PhD work from the recent past
in our network was one of our objectives. A list and description of past web seminars are presented in appendix 2. 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 in Moodle (www.partners.tencompetence.org/mod/resource/view.php?id=408) and on the SURF partner site (www.surfmedia.nl/Mediatheek/Pages/PubliekProfiel.aspx?personId=3721).

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-3 period, though, the main communication facility in the PhD Network was 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.

Personal 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 the above mentioned Remashed aggregator.
4. Internal Competence Training and Knowledge Exchange

Task 9.2 – Define and organize Training for Consortium and Associate Partners to promote efficient collaboration, development, and use of the project outcomes. Provide induction for new project members.

In T9.2 the intended target audience was the individual learner and learner groups mostly within the Consortium or Associate Partners involved e.g. in pilots. Together with WP4 the training needs for the Cycle 2 User Pilots (ID9.11) had been analysed and addressed in the previous deliverable D9.2. Results from training experiences were fed back to the Aspect WPs via the TENCompetence collaborative infrastructure (online and offline).

During this phase of the project, the main focus for WP9 under this task was on the Cycle 2 pilots as well as support for developers to facilitate more effective and successful project outcomes. This responsibility was taken up by WP9 through a great variety of activities, starting from regular face-to-face delivery meetings, to the production of a series of quick guides, screen movies and manuals. These have been reported in previous deliverables and progress reports and need not be repeated here.

For D9.3, two internal deliverables remain: ID9.13 and ID9.14. Both are based on historic demands for training which are explained below.

4.1 Induction Programme for New Project Members (ID9.13)

TENCompetence is a large project with some 137 project workers involved across different institutions, countries, and cultures. This number is not stable, however, and new people are added to the Consortium on a frequent basis, even now as the project is about to draw to a close soon. From the beginning, therefore, there had been a great demand for the provision of training to new project members. This had the objective of kick-starting their understanding of what the project is about, where particular expertise lies, how to communicate and collaborate, and the general working definitions and concepts the project uses to achieve its goals.

WP9 already early on provided a dedicated space on the internal collaborative platform Moodle to induct newcomers. This, of course, came as a complementary service from local induction, and therefore covered mainly the generic project perspective rather than the job requirements of the individual. We also took it upon ourselves to keep an eye on the actuality of the information and to maintain and update it as required. The site is available under: http://www.partners.tencompetence.org/course/view.php?id=30.
It is structured as follows:
- Welcome
- The Project Plan
- Why TENCompetence
- Competence defined
- Technologies used in the project
- Structure of the project
- Output assessment
- Further training resources.

More concretely it informs new project members about:

- the aims of the project
- the definition of basic concepts that we use throughout the project (competence, competence development, SOA, etc.)
- the requirements for the technical infrastructure
- the structure, function and processes in the project
- the output assessment criteria.

Each topic starts with a video (slides + audio) that has been recorded at the kick-off session in Valkenburg a/d Geul, The Netherlands (7-9 December 2005).

In addition to this specific induction programme, all other training provision is also available to newcomers.

4.2 Project Weblog (ID9.14)

This activity covers a similar demand for coherent internal communication and training to the above ID9.13. With over 100 project members actively working to fulfill the goals of the TENCompetence project, the need for an effective communications infrastructure was always considered paramount.

This report provides an explanation of the rationale behind the decision to implement and maintain a project weblog/wiki designed to ensure effective orchestration of all collaborative efforts made across the project.

As well as highlighting the perceived need for such a system, the report explains how work undertaken in work package 10 obviated the need for a separate WP9 weblog. Instead it was felt that combined efforts would be the best way forward to serve internal and external stakeholders.
4.2.1 Weblog Rationale

The TENCompetence project is a large and ambitious four-year project with a substantial number of individual project workers employed directly by one of 15 active core partners and spread over nine different European countries. These core partners include:

- OUNL
- ALTRAN
- LOGICA
- FBM-UPF
- ILABS
- CERTH/ITI
- UHANN
- INSEAD
- University of Bolton
- UvA
- SU
- SURF
- SYN
- UNESCO-IHE
- Agora.

Each of the partners was selected to participate in the project on the basis of their respective expertise in project related fields ranging from adult education networks to software development firms, and was subsequently assigned to one (or several) of ten individual work packages relating to one of three different areas of activity:

- aspect research and technological design activities
- integration research and technological design activities
- valorisation.

In keeping with the goal to create an integrated infrastructure, the project plan identified the need for a collaborative workflow which would enable seamless synergy of the work of the various experts across the various work packages and partners to ensure that all project outcomes are coherent and fully developed. One step towards achieving this was made in the implementation and use of the Moodle collaborative platform and each work package was provided with its own workspace from which forums and wiki's could be used to channel communications. However, it soon became apparent that in spite of its many and varied functionalities, this platform in and of itself could not sustain the level of communication required to ensure effective collaboration across the work packages and across the partner organisations. WP9 in its role to facilitate exchange of knowledge and experience therefore investigated the possibilities to set-up communication across work packages and to log continuous progress by using modern weblog tools available from within the Moodle environment for consultation by all interested parties across the project. This way, people could be kept abreast of all developments and act accordingly.
While this plan of setting up a weblog facility for the benefit of better internal communication was approved as part of the DIP-3 plan (ID9.14), soon it became evident that there were other considerations that strongly influenced the direction this approach took.

One obstacle that emerged quite early on was that the Moodle weblog tool is still underdeveloped and in our tests did not deliver the expected results in terms of cross-WP news feeds. Secondly, the question of staff responsibility for authoring blog posts remained unanswered and would have been difficult to implement successfully in a short period of time. Project staff already had established communication channels and personal information management strategies, which at this late time in the project (Year 3) had already become somewhat petrified and difficult to change. It seemed unreasonable to require people through extra effort to adopt an entirely new communication system and strategy. This was estimated as coming at too high a cost in terms of time investment required.

The idea of a collaborative communication system was not abandoned fully, but instead merged with a rather similar activity managed by WP10 under the task of internal dissemination. This solution avoided us to duplicate efforts to manage two competing communication structures (WP10 introduced a wiki, while WP9’s intentions focused on a weblog). It also avoided duplicating the demands on staff time to report. Additionally, major benefits and efficiencies became apparent through the joining of the two ventures, dissemination and knowledge sharing. The input to the wiki could be harvested also for external communications and marketing, because it contained the sum of continuous progress reports of the various work packages in one single spot.

### 4.2.2 Internal Dissemination

Whilst the perceived need for a weblog was written into DIP-3 as a WP9 deliverable, internal communications work was already taking place in WP10 in the form of a newsletter. The WP10 newsletters are compiled, written and issued on an intermittent basis and aim to inform all core partners on progress between and over individual WPs as part of the remit of task three: Proactive Internal Dissemination. In order to facilitate this process, WP10 established one wiki per work package and regularly invites work package leaders to use the facility as a repository for news and information relevant to the project core community.

This proactive approach to collating information on project developments has the merit of helping to facilitate coordination and collaboration across the work packages in a way which precludes the need for a weblog. Moreover, the newsletter harvests information internally which can, and eventually will, be used for external dissemination purposes among subscribers and Associate Partners. Consequently, in order to avoid any duplication of work, it was decided that the WP9 task of coordinating the project weblog would be subsumed under task three of WP10.
5. Network for Associate Partners

*Task 9.3 – 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 (ID9.15).

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 testing implementation of project tools and 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.

5.1 Introduction

This report presents an overview of the WP9 activities organised for TENCompetence Associate Partner Network, and other interested parties during month 25-36. Within WP9 these activities where related to task T9.3 as described in the DIP-3 planning document. SURF was the lead partner in this task through their key position in the community. They were mainly supported by OUNL, the University of Bolton, and LOGICA.

The activities reported here cannot be seen in separation from WP10 dissemination work in keeping Consortium and Associate Partners informed of training events and news periodically, but also to raise general awareness of the project. No strict division of labour exists between WP10 (dissemination) and WP9 (training), but close collaboration in joint events to present the TENCompetence project outcomes. In most cases, dissemination contains an element of demoing or training, which is where WP9 comes in. As of lately, with the introduction of TENCompetence Business Demonstrators, WP9 training is also strongly linked to support activities managed by WP4. WP9, therefore, understands itself not as a stand-alone work package, but a service unit that supports vital internal and external tasks of all WPs.

One of the tasks of WP9 is to maintain the running status of Associate Partners and their respective signed MoUs with the Consortium. A list of MoUs signed to date is attached to this report (cf. appendix 3).

This report is a continuation of the task and activities documented and described in D9.2 Section 4 (p.9ff). We won’t therefore repeat things already explained there, but refer the reader to this deliverable (http://dspace.ou.nl/handle/1820/1301). Among other things, D9.2 explains the composition of the Network and in which different roles Associate Partners are able to participate in TENCompetence.
This document comprises updates on the organised activities for the TENCompetence Associate Partners during the period covered by this deliverable. We also describe the status of Associate Partners for TENCompetence and the current list of TENCompetence AP’s.

### 5.2 Activities for TENCompetence Associate Partners (ID9.15)

In task T9.3, initially, special attention was directed towards reaching SME’s, professional networks, associations, chambers, NGOs, enterprise companies and similar multiplier organisations within the Associate Partner Network. However, this special focus was dropped following the recommendations made by the reviewers to broaden our implementation to businesses of all kinds, and especially large corporate or public organisations.

With respect to Associate Partners there was and still is a dominance of academic institutions being interested in the interim findings of TENCompetence. This is to be expected at a stage where software output is still in a prototypical stage. As we shall report below when organising a special event for SMEs, this proved not attractive enough at this point, due to the target audience looking for polished solutions ready for implementation – not prototypes. However, for WP9 academic institutions were at this point prominent and valuable Associate Partners that we made every effort to cater for. Even more so as, under DIP-3, task T9.1 requires WP9 to facilitate the exchange of research and experiences.

In 2008, several conferences and workshops were organised by WPs 9 and 10 for these specific target groups. In the following we briefly describe these events.

**Madrid Open Workshop, April 2008**

The first TENCompetence Open Workshop of 2008 was organised by ALTRAN in conjunction with the University of Amsterdam (UvA) and took place in Madrid on 10th and 11th of April 2008.

The aim of the workshop was to explore and examine current research into technologies needed to facilitate interaction and navigation and to provide access to competence development opportunities to a range of interested parties.

The event attracted some 40 attendees from across Europe and a strong British contingent was apparent. The participants were, for the most part, connected to Higher Education institutions. Of the 40 participants, six expressed an interest in becoming an Associate Partner and were subsequently added to the list of contacts.

Of the seventeen papers selected for presentation, eleven were subsequently published in a special edition of the International Journal in Emerging Technologies in Learning, entitled “Infrastructures for Lifelong Competence Development: The 4th TENCompetence Open Workshop in Madrid 2008”. The journal is available from http://online-journals.org/i-jet/issue/view/30.
The paper presentations related to a number of themes including:

- Pilots and Practices
- The Integrated Architecture
- Group Interaction and Group Learning
- Assessment.

Approximately 50% of the papers had a direct correlation with the TENCompetence project whilst the remaining 50% concentrated on research and trends in the field of Lifelong Learning. The agenda and presentations from the workshop can be found at: http://www.tencompetence.org/files/Madrid_agenda.htm.

In addition to the event proper, a separate Code Bash was held in connection with SME Associate Partners. One Netherlands-based SME company joined and contributed to this event.

Salzburg Open Workshop, June 2008

The 2008 Edumedia conference was held in Salzburg, Austria on the 2nd and 3rd June where OUNL organised a special TENCompetence track with the theme "Technology Support for Self-Organised Learners".

Thirty people from HE and technology-enhanced learning more generally attended the workshop which included some 5 time slots with 2-3 presentations per slot. The track included an eclectic mix of presentations on the theme of self-directed learning. It elicited a range of views, both technological and pedagogical, on semantic learning tools and/or other educational technologies for the interactive web of the future.

Selected contributions from the track were published in a special issue of the Journal of Educational Technology and Society published in late 2008/early 2009. Additionally, proceedings from the event can be accessed from: http://ceur-ws.org/Vol-388.

ALT-C, September 2008

Another training workshop took place at the renowned ALT-C conference at the University of Leeds in the UK on Thursday 11th September 2008 under the theme “Rethinking the Digital Divide.”

WP9 in conjunction with the University of Bolton ran a 90 minute hands-on workshop of the personal competence manager (PCM). As well as helping to raise awareness among participants of the project aims and objectives, the workshop provided participants with an opportunity to engage with the intended outcomes of the project through the use of this proof-of-concept tool. In total, 17 participants attended the workshop.

**SME Event at EC-TEL, September 2008**

Connected to the EC-TEL conference (Maastricht 17-19 Sep 2008) a specific event had been organised for AP's & SME's. An SME workshop was organised for the 17th of September 2008 at the Maastricht Business School. We invited several SMEs from the Netherlands. The Chamber of Commerce Maastricht made an announcement of the workshop in their newsletter for SMEs. The programme of the workshop was specifically geared to address and attract SMEs, meaning that the workshop was not an academic event, but focusing on topics which are important for SMEs. The topic of the event was ‘Supporting Competence Development for Your Employees’. The event was free of charge and we also made reservations for time to network. The time schedule was adjusted specifically to suit the working hours of SMEs, i.e. 17.00-20.30.

Unfortunately, the event had to be cancelled since the targeted number of 10-15 SME's was not reached. Looking back, the publicity for the event was sufficient, and we reached the right target groups. Perhaps the time schedule did not fit the SMEs. A lot of effort went into organising this event and a lot of publicity for TENCompetence was made, which unfortunately did not pay off this time. Over all we are satisfied with the effort we put into this, but there are many possible reasons for this outcome, which we did not have time to investigate further.

**Use of ICT to Support Competence Development, October 2008**

SURF organised on October 10th an event for Dutch Higher Education on the use of ICT to support competence development (Zwolle 2008). 50 professionals from HE and 10 SMEs attended this conference which was sponsored by TENCompetence.

During the conference, Dutch SMEs in the area of competence development presented their tools for lifelong competence development. The tools & services developed within the TENCompetence project were also demo’ed. By sponsoring this event a lot of awareness was created for the TENCompetence project within Dutch institutions. The SMEs showed a sincere interest in TENCompetence and still want to have regular updates on the progress of the project.

**Sofia Open Workshop, October 2008**

This event, with the title “Stimulating Personal Development and Knowledge Sharing”, set out to identify and analyse state-of-the-art research and technologies in the fields that provide the building blocks for the development of an Open Source competence development infrastructure.

Run over a two day period, the event included a total of fifteen presentations from TENCompetence partners, Associate Partners and interested parties from outside the project. The agenda and presentations can be accessed here and the proceedings are available from: http://hdl.handle.net/1820/1251.
Professional Training Facts, November 2008
To address a more non-academic target audience, TENCompetence participated in this event in Stuttgart on 11th-12th November 2008, which was organised by the Fraunhofer Institute Competence Centre on Human Resource Management.

WP9 and WP10 jointly manned a promotion and demo stand and engaged with interested industry representatives directly in hands-on discussions. These talks were perceived as highly informative providing insight into the industry’s needs and approaches to competence development. The event also provided useful interaction and exchange with the ProLearn project, a sister FP6 IP project to TENCompetence. It is envisaged that further collaboration on next year’s PTF event will emerge from this.

Online Educa Berlin, November 2008
During the prestigious Online Educa in Berlin we organised a pre-conference workshop on the topic “Supporting Lifelong Competence Development and Employability using TENCompetence Services”. 25 participants from SMEs, NGOs, companies and institutes/organisations for training and education attended this workshop. For an overview of the workshop please see http://hdl.handle.net/1820/1880.

Other activities in 2008
WP9, especially OUNL, University of Bolton, and LOGICA contributed to a section of the forthcoming publication on "Learning Network Services" presenting the TENCompetence domain model and discussing key implementation examples. The book will be published by Springer with the expected publication date in late summer 2009.

The section, containing 3 chapters and 5 subchapters intends to demonstrate the implementation of a technical infrastructure for lifelong competence development, based on a common domain model, a common data infrastructure and an open software/tools environment, exemplified by prototypical TENCompetence tools, such as the Personal Development Planner (PDP), or the ReCourse Learning Design editor.

5.3 TENCompetence Network of Associate Partners
WP9 activities with respect to the Network of Associate Partners were affected by a slight shift in emphasis of the project and decisions made by project management. It had become clear that Associate Partners were rather passive, and not in the way active that we expected them to engage with the project. We had noticed that their contributions had till then been rather sporadic and not sustained, which is understandable as this engagement was entirely based on enthusiasm and did not receive any funding.

Additionally, the recommendations from the Annual Review in February 2008 suggested more real-life engagement of the project under the auspices of WP4, which hitherto was only responsible for conducting the pilot cycles described in the DoW. These recommendations were put into action by introducing Business Demonstrators.
Another reason for doing this was that MoUs were signed at a much higher hierarchical level (typically by a Vice-Chancellor or Managing Director) and not at the level of people who had a direct interest in our domain. This led to long delays and put activities on ice for the length of the signing process. In some cases, such MoUs were even refused by the signatory, despite keen interest from a particular department. Reasons were often the fear of undefined legal and financial commitments the organisation as a whole would not stand for.

With the move to Business Demonstrators, the project management decided to activate Associate Partners in a more proactive way. The larger Consortium partners were asked to mentor at least one external organisation from their region or country, who had declared an interest in TENCompetence or signed a MoU previously. Being an existing Associate Partner, however, was not a precondition for participating in the Business Demonstrators.

The success and proceedings of the Business Demonstrators will be reported through WP4 deliverables, and are out of the scope of this document. With respect to the Associate Partner network, as maintained by WP9, the result of this move was that the importance of this network declined into insignificance, and has been removed as a separate focus from the DIP-4 planning period. Instead, training will focus not on random and highly diverse partners, but on real implementation.

5.4 Conclusions & future directions

WP9 is striving to fulfil its mission to provide training to internal and external parties, to promote the take-up of TENCompetence output. The Associate Partner network which is a shared activity of WP9 and WP10, has seen a lot of engagement of various kinds during the reporting period. We have learnt that the success of training to promote TENCompetence products, be it academic articles or practical tools, depends on a proper, stable and fully-functional product. Attracting external partners is extremely difficult with prototypical or draft versions. Considering the current state of the project being in the middle of the development phase with changing directions and environments, we have been over-expectantly successful in establishing and maintaining a large network of external Associate Partners, which at the time of writing holds at 31 members (Appendix 3).

Under the DIP-3 plan, several events were organised in conjunction with WP10 for TENCompetence Associate Partners, SMEs and other stakeholders to spread the results of the TENCompetence project as and when they became available. Overall in 2008, the project disseminated and provided training to a lot of Associate Partners and other general stakeholders.

Whilst WP10 continued to recruit Associate Partners, WP9 held demonstrations and hands-on workshops around a nice palette of tools including the PCM, the PDP tool and the ReCourse LD editor. These training/dissemination events were complemented with
the awareness raising presentations established in DIP-1 and delivered across all three DIPs to date.

During the following period, emphasis will shift in supporting the implementation of TENCompetence instantiations with Business Demonstrator partners, by providing training on demand as well as pre-manufactured training. WP9 will continue to maintain a record of MoUs signed between the project Consortium and interested parties.

With the gradual availability of tools such as LearnWeb and the Personal Development Planner tool, WP9 recognises the need to produce new training materials to help Associate Partners and other stakeholders (including the wider public) to use them. This need has been, and continues to be met through the production of such materials as well as the organisation of relevant events.
6. **Network of Service Providers**

*Task 9.4 – Create a strategic vision for a network of Service Providers*, such as career, job and HR services, and develop a training package for use cases within an organisational and personnel environment focusing on a train-the-trainers perspective (ID9.16). Following the identification of a number of key usage profiles, a framework for training and supporting future coding and user communities will be developed (ID9.17).

Task T9.4 has its main role in preparing the future uptake of the TENCompetence infrastructure with an adequate training methodology. As such this is not about concrete training materials or courses, but about an abstract and generic training plan that can be adjusted to local needs by any type of organisation. Of course this generity comes at the cost of being a less off-the-shelf solution to many implementers. However, the creation of an abstract framework helps identify the basic training needs required for organisational deployment of these tools for technology-enhanced learning.

For the uptake of the system by end users and prospective partners, the results of the pilots and business demonstrators are valuable and relevant. Following the recommendations of the reviewers, WP4 had developed a pilot implementation strategy for organisations wanting to testrun TENCompetence tools in their business. The current work by WP9 is seen as complementary to this strategy, providing guidance and structure for essential training that is required in the course of implementation.

The TENCompetence infrastructure is not only a single learner tool, it also promotes itself as an enterprise solution for organisational competence development. For general stakeholders, not only a technically sound and user-friendly system will determine the uptake of the system but also the business process for implementing it. The institutions and organisations who would want to implement the TENCompetence infrastructure need to be prepared and guided during the roll-out process in the aspects of using the infrastructure and, equally important, in the training of staff.

This task of creating a generic training framework was divided into two components: content (ID9.16) and process (ID9.17).

### 6.1 **Training Package Framework (ID9.16)**

#### 6.1.1 Introduction

Training for professionals in organisations, but also to some extent in individual learning, falls into two process domains: a learning process/methodology and learning content. It has to address the ‘how-to-learn’ and the ‘what-to-learn’. We discuss a framework for supporting the implementation of a training process in another, separate document,
ID9.17. This part is about the latter aspect of identifying the training needs of professional learners and addressing them with appropriate content.

Typically, the organisation and management of training in organisations is done by Human Resource departments or special training units. This framework document, therefore, is mainly written for these persons, i.e. people who support others in their competence development. As such it is deliberately kept abstract and simple, but should be seen as a starting point for training officers to develop it further according to their company requirements.

As mentioned above, we also created an outline or framework for professional organizations elaborating the various aspects involved in the training cycle, including evaluation and feedback (below section 6.2). This current section 6.1 comprises a template which we asked our Associate Partners to fill in in order to get an overview of their training needs. With this information WP9 developed a good grasp of the requests for training and can fulfil easily and swiftly these requests. This procedure will also make it easier to evaluate the TENCompetence Business Demonstrators from a training perspective and to improve the training material. Through this document we want to share this expertise with interested parties.

6.1.2 Training requirements template

During the implementation of our TENCompetence Business Demonstrators and Cycle 3 Pilots, we identified a number of areas relating to training. There are different aspects to consider when analyzing training needs: different user roles, different training materials and different types of training; e.g. focused on technical installations or focusing on a user-perspective.

With the template below we asked the Associate Partners and core partners which of those training aspects they used and also didn’t use, when preparing for the Business Demonstrators. The results of these questionnaires will be published at the end of the pilot cycle in internal deliverables ID9.19 and ID9.20.

At this stage, the completed template was collected by WP9, and it informed us about the prerequisites of the participating organizations. These could then be addressed by creating an appropriate training pack of manuals, online events, or training videos to name but a few.

The below table shows the questionnaire template. It is intended as a stimulant for self-reflection of the organisation, in order to come up with the appropriate and relevant environmental settings and materials for training.
### Table 1: Training requirements template

<table>
<thead>
<tr>
<th>Name and Description of Business Partner</th>
<th>Include here the name of the organisation and a short description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tooling</strong></td>
<td>Indicate the TENCompetence tools (and the complementary external tooling, if applies) that will be (is being) used in the implementation. Describe to which extent does the combination of TENCompetence tooling applied in the roll-out provide the kind of support that is mentioned as follows:</td>
</tr>
<tr>
<td></td>
<td>1. Support new pedagogical &amp; organisational models for lifelong competence development</td>
</tr>
<tr>
<td></td>
<td>2. Support individuals to search for the most suitable formal and informal learning activities</td>
</tr>
<tr>
<td></td>
<td>3. Stimulate pro-active sharing of resources</td>
</tr>
<tr>
<td></td>
<td>4. Support competence assessment</td>
</tr>
<tr>
<td></td>
<td>5. Provide various forms of user support services</td>
</tr>
<tr>
<td></td>
<td>6. Provide decentralized, self-organised management</td>
</tr>
<tr>
<td></td>
<td>7. Integrate isolated models &amp; tools from different areas</td>
</tr>
<tr>
<td><strong>Training Needs</strong></td>
<td>Describe any training needs (that could be provided by WP9) required for carrying out the demonstrator. Is for every tool mentioned in the previous row training provided? If not, what is the reason for not providing training for this tool? Technical support, who supports the set up of the implementation? Is for the installation any training and support requested?</td>
</tr>
<tr>
<td><strong>Training Manuals</strong></td>
<td>Does the business demonstrator make use of any training manual? Please make a distinction between technical and user manuals</td>
</tr>
<tr>
<td><strong>Training Videos</strong></td>
<td>Does the business demonstrator make use of any training videos for participants?</td>
</tr>
<tr>
<td><strong>Training Presentations and Workshops</strong></td>
<td>Is any presentation or workshops on tooling requested or delivered?</td>
</tr>
<tr>
<td><strong>Technical Support</strong></td>
<td>Is any technical support required when setting up for the implementation and who provides this technical support?</td>
</tr>
<tr>
<td><strong>Non-Tools Related Training</strong></td>
<td>Is there any training requested which is not related to the tools used in the business demonstrator?</td>
</tr>
<tr>
<td><strong>Implementation Plan</strong></td>
<td>Provide an overview of the scheduled training activities for the business demonstrator</td>
</tr>
<tr>
<td><strong>Evaluation Plan</strong></td>
<td>Please comment on the quality of the used training materials</td>
</tr>
</tbody>
</table>

### 6.1.3 Evaluation

The completed template forms will be collected and analysed for the organisation of business-specific training events, support and guidance for the Cycle 3 pilots and Business Demonstrators. In some cases, materials need to be produced, and extra time for this need to be scheduled before a pilot can start.
One thing worth noting is that the training pack framework produces no domain specific materials. Its main purpose, due to the scope of the TENCompetence project, is to provide support for the TENCompetence infrastructure and its implementation. Domain specific knowledge, such as what are the target competences that I want my learners to acquire, need to be addressed in a separate process and lies outside this internal deliverable. Since TENCompetence is not subject specific, it is feasible that a multitude of approaches can be used for this. In the Netherlands, for example, there exists a national agreement on professional competences (COLO), and these can be used in the settings. However, companies and organizations are free to choose their own way, and other approaches may exist in other countries.

A full analysis of the training requirements will happen after completion of the Cycle 3 Pilots and Business Demonstrators from Consortium and Associate Partners. They will be asked to have a look at the template again and indicate on which subjects they would like to see improvements. These improvements could vary from updating the user manuals/videos to the creation of additional workshops around a pilot or a business demonstrator.

References


6.2 Usage Case Training Framework (ID9.17)

6.2.1 Introduction
Subsequent to the identification of a number of key user profiles based on current and anticipated future target user groups, we develop in this report a framework for training and supporting these user communities. We foresee them to become or continue to be future stakeholders in the continuation of the TENCompetence project after its completion. At the moment of writing, no formal approval from the project leadership or Vision Group exists on these target user groups. This work will therefore play an important part in the discussion on sustaining the TENCompetence principles and efforts beyond the project life span. The usage cases we identified reflect the different roles a user can take within TENCompetence and in the exploitation of its software and research findings.

Following the defined usage cases (Chapter 6.2.2), the document outlines a generic training approach to serve these cases from a train-the-trainer perspective (Chapter 6.2.3). The specificities of each target group are dealt with separately in each chapter to make the approach suited to their needs. The framework explains how a training program can be established and what steps the training provider needs to take into account to make this process successful to each user community. Finally, practical aspects like a suggested training plan (Chapter 6.2.4), training course materials (Chapter 6.2.5), a support pack
(Chapter 6.2.6), and a training course feedback form (Chapter 6.2.7) are presented as templates to help quick implementation and use of the framework.

**Overview**
The diagram below provides an abstract overview of the construction of the framework:

![Diagram](image.png)

**Figure 1 Training framework construction**

### 6.2.2 Usage Cases and Target Communities

**Why create usage cases?**
During the creation of a training framework that supports exploitation of the project outcomes, we identified four anticipated spheres of usage. As described above, these usage cases reflect and are identical to the different target communities that we think will be vital for the uptake and continuation of TENCompetence products and services. These
target groups do not come unexpected, and have, in fact, long been an integral part of WP9 planning and activities (see D9.1 Roadmap).

For the sake of clarity, a ‘user’ in this document can refer to both, an individual person or an organisation. Unnecessary to say that users can play a part in one or more of the specified communities depending on their involvement, e.g. a programmer can also be a learner or researcher; an organisation can contribute to research and at the same time exploit the TENCompetence infrastructure for staff development.

There are several good reasons for constructing usage cases along the lines of target communities of users. First and foremost, we want our WP9 training and support efforts to be efficiently structured and focussed, but yet reach the key consumers in what we might call the TENCompetence market. We cannot train everyone in everything; therefore structuring our customer base provides more focus and higher relevance to the people or organisations concerned.

Additionally, the usage cases allow third party service providers to continue and extend the training and support services which are at present carried out by WP9. This means that a fictitious third party should be able to support a fictitious end-user or organisation, using this framework. Such provision is simplified by analysing who the potential end users are.

Who are our target communities?

(1) Researchers and PHD students
For researchers in the domain of competence development and learning networks, specific Competence Networks have been established in the project. The TENCompetence Network of PhD students was already set up at the beginning of the project and will be further maintained to support research exchange in the academic community (see section 3 of this deliverable). Its objective is to facilitate communication between PhD students and other researchers and to encourage knowledge sharing. This target group consists mainly of PhD students and their supervisors conducting research in the areas related to the TENCompetence project, but it is also open to other people who would like to become involved.

Researchers can establish Competence Networks that focus on a specific field, e.g. learner positioning, mobile learning, recommender systems, social software, IMS Learning Design, etc. Within such a Competence Network they can collate relevant resources, discuss open issues, find colleagues, learners can get guidance and advice from experts, etc. In addition to remote collaboration, they can jointly organise and attend live events as well. Part of the distributed online services that WP9 provides to this community is a series of online research seminars.

(2) Associate Partners
Associate Partners are organisations who have committed themselves to active participation in one or several activities of the TENCompetence project or the future TENCompetence Foundation as co-developers, disseminators, and/or service providers.
Associate Partners (and consortium partners) perform various roles in developing, testing, maintaining, promoting and exploiting the TENCompetence infrastructure, either within the Consortium during the project life cycle, or after termination of the project through the TENCompetence Foundation.

A special contribution to the future adoption of TENCompetence is expected to come from service providers. We define them as third parties that help organisations to set up and run TENCompetence services through their own consultancy or hosting services.

(3) Learners and Learning Organisations
This target group consists of individuals as well as adopting organisations of the TENCompetence infrastructure and services. They are often referred to as the end-users.

Training for users and subscribers inherently will depend on the products delivered by the project – the integrated infrastructure. Training for these groups will focus on how to use the TENCompetence infrastructure as it will be delivered through a number of different releases during the project life cycle.

(4) Developers (Coders)
Present and future developers and service providers are made up of the Consortium and Associate Partners – in particular SME’s – who will assist with the development and delivery of the TENCompetence outcomes and services. These partners are crucial to the successful development, take-up, and sustainability of the project, as they will help us create the TENCompetence organisational infrastructure. The TENCompetence Network for Associate Partners has been set up for them and will be actively supported through involving them in development, piloting and evaluation activities. Training activities will focus on developers of services, producers of learning resources, trainers, and service providers.

At the moment these researchers and developers are still mainly from within the Consortium, but over time it is expected more Associate Partners will join, and through the Foundation contribute to the further development and sustainability of the TENCompetence infrastructure. Present training needs within the Consortium therefore are expected to reflect future training needs for associate partners, and as such the materials and lessons learned from the internal training activities will be repurposed for training activities targeted at external audiences.
6.2.3 Training Framework Outline

This chapter gives an insight to what a basic training framework could look like. For this training framework we made use of the Cortex methodology from LOGICA (2008). Below a general training framework is shown. This figure has to be read from left to right and from top to bottom (from input to output) with keeping a ‘train-the-trainers’ perspective in mind.

**Figure 2 Training Framework Outline**

<table>
<thead>
<tr>
<th>Input</th>
<th>Process</th>
<th>Output</th>
</tr>
</thead>
<tbody>
<tr>
<td>• User Manuals</td>
<td>Review inputs and agree training plan</td>
<td>• Training plan</td>
</tr>
<tr>
<td>• User &amp; Developer training needs</td>
<td>Prepare training requirements</td>
<td>• Updated training plan</td>
</tr>
<tr>
<td></td>
<td>Agree training course delivery and documentation</td>
<td>• Updated training documentation</td>
</tr>
<tr>
<td></td>
<td>Deliver training</td>
<td>• Observation reports</td>
</tr>
<tr>
<td></td>
<td>Update training delivery from course feedback</td>
<td>• Updated staff requirements</td>
</tr>
<tr>
<td>• Feedback forms</td>
<td></td>
<td>• Updated training plan</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Updated training documentation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Training course feedback form</td>
</tr>
</tbody>
</table>
• **Policy and business requirement**
  Training courses are important to a ‘user’ for receiving an effective induction to a piece of hardware, software, a complete system, a product or a business process before introducing it into business operations. In the TENCompetence project we mean by this the introduction and planned exploitation of the integrated software system, or individual tools like e.g. the PDP tool. Additional training may be required for staff involved in programming development to adjust the tools to the organisational needs. Some lifecycles specifically identify this requirement.

• **Aims**
  The aims of the training framework are to enable professional, informative and comprehensive training to meet the needs of the organisation and their staff.

• **Inputs**
  o User manuals
  o User and staff training needs
  o Feedback forms to assess impact.

• **Entry criteria**
  An initial separate process is to identify the user or staff training needs and requirements. Typically, this would be done by the line management structure in an organisation, but can also be initiated by the individuals themselves.

• **Process definition: execution**
  The first major step is to prepare a training plan and formally agree it with the trainee. In the TENCompetence toolbox the Personal Development Planner (PDP) application can be used to support this process. This training plan sets out the detailed approach to be taken to achieve the agreed objectives, the roles and responsibilities of organisation and individuals involved in the process, and the detailed procedures to be used for preparing and reviewing course materials. The actual scheduled delivery dates for course components are covered by the training plan too.

The content of the training plan will define:

  o the courses to be provided and their objectives
  o course syllabus and possible constraints (e.g. timescale, number of attendees per course, cost)
  o target audience and required competence level of course attendees
  o number and calibre of trainers/moderators/experts involved in the course
  o format of the course; e.g. offline – online – blended
  o required levels of competence for carrying out specific tasks associated with the system
  o provision of course notes and their format
  o equipment and facilities required
  o handling of course feedback from attendees.
The training plan should include a compliance statement demonstrating that the agreed objectives are covered. Once agreed with the learner(s), the courses are prepared and reviewed in accordance with the plan.

The training plan and the subsequent course materials are configuration controlled and errors or improvements can be handled using observation report and change control mechanisms.

- **Process definition: verification**
  Verification covers delivery of training against plan and monitor course feedback to ensure that attendees are satisfied with the quality and outcomes of training received.

Training organisers should seek feedback from attendees using the training course feedback form. These should be reviewed and any issues either corrected for future runs of the course, or raised with the user if they relate to aspects outside their control.

- **Output**
  - Training plan
  - Updated training documentation
  - Training course material
  - Observation report (if needed)
  - Updated staff training records (e.g. competence level)
  - Course feedback (evaluation).

- **Exit criteria**
  Training should be prepared and delivered in a manner acceptable to the end user. The user should also be able to define their own exit criteria beforehand.

### 6.2.4 Training Plan

The training plan should be a definite output whenever training is provided. Some elements should be seen as mandatory (followed by [m] in the list below). For the TENCompetence project, training is a key element throughout the project lifecycle and beyond. It covers the training needs of learners from all the defined target groups.

Below, we will at first generically specify the proposed content of a training plan, then, we look into addressing the individual target communities, where they would show anticipated differences.
The training plan abstractly defines the nature of the training to be given on the TENCompetence infrastructure or knowledge products and the required material and resources. It should address the following topics:

- list of training units to be provided and their objectives
- list of training manuals/guides to be provided, e.g. the TENC Quick Guides
- unit syllabus and potential constraints (e.g. number of participants, fees) [m]
- target audience and required level of competence of course attendees
- required levels of competence for carrying out specific tasks and training activities. Some specific courses may be required as preconditions for entry to achieve such levels of competence, e.g. general computer literacy
- manpower resources required both in preparation of training material and in presentation or organisation of training units; required skill level for each resource
- format of the training unit (e.g. presentation, presentation plus hands-on use, etc) [m]
- provision of notes, their format and availability
- equipment and facilities required [m]
- handling of course feedback from attendees
- schedule of training units and any dependencies/relationships.

**Document review and approval**

The training plan should be internally reviewed prior to issue. The documents must then be reviewed together with the trainee(s). Because of the possibilities for self-organised learning that TENCompetence offers, the discussion of the training plan can also be built into a staff appraisal procedure. For distributed support in this process the TENCompetence PDP tool would be suited.

**Document lodgement**

Ideally the training plan document should be lodged in a document repository that is accessible by staff, trainers, and management. Any review records should also be archived.

**Training plans for specific TENCompetence target groups**

Researchers in the TENCompetence area of interest form a self-organised community of interest. To facilitate this setting, the training plan is mainly geared towards enabling the exchange of knowledge and experiences, with the prime objective of keeping up-to-date in the field (in TENCompetence the open-source Moodle learning environment is used as a collaborative online space for sharing and exchanging expertise).

The training plan for this user group therefore needs to enable self-organised training. This can be further facilitated through the setting up of regular online seminars or online presentations. Manuals, equipment, and facilities that would be required for this are a
suitable online platform (we used Adobe Connect and Flashmeeting in the project), a broadband connection, headset with microphone, and instructions on how to enter the virtual conference room. Likely constraints are that the online platforms only support a limited number of users, and, dependent on the amount of interaction desired, the number of attendees might be restricted. Our experience has shown the numbers where it is still possible to get a positive user experience should not exceed a maximum of 10 attendees in Adobe Connect and Flashmeeting. However, online presentations with no interaction can be broadcast to a larger audience.

A special requirement for a training plan to this distributed user group is the announcement of the event, where issues like time (including local time), technical requirements, agenda/theme, learning objectives, and required previous knowledge should be specified. For the Researcher group it is likely that involvement in academic research is the entry level to such training units.

Special requirements are also foreseen for the Developers target group. In TENCompetence the platform Sourceforge is used to share materials and issues. This includes tracking for coding issues, but also proper documentation of programming development, sharing of frameworks and guidelines for contributing pieces of code.

6.2.5 Training Course Materials

General requirements are:

- all printed material should be under appropriate version control
- a record should be kept to show which version was used for a particular course
- materials should be made available electronically and on demand.

- **Document review and approval**
  The document review and approval depends on the training being undertaken. For training for a development (internal to a project) the project manager should approve the course material. For end-user training, an approval mechanism for course materials should be detailed in the quality plan.

- **Document lodgement**
  Course materials should be accessible through a common project file store or for a specific product as part of the related support pack. Accessibility anytime anywhere is of great advantage to the learners.

*Training course material for specific TENCompetence target groups*

The TENCompetence project focuses on specific competence networks in the field of lifelong learning research. Researchers typically require training materials of a different type which often come in the form of presentations or published articles. Similarly, PhD students benefit from the open access to specialist lifelong learning materials in their PhD network community.
The TENCompetence DSpace and Moodle repositories contain all documents, presentations and articles that have been produced since the start of the TENCompetence project (http://dspace.ou.nl/handle/1820/496). DSpace will continue to be the most important online storage place for documents concerning this domain even after the TENCompetence project has finished.

Associate Partners and Developers also make use of some of the materials mentioned before, quick start guides and technical installation documents are requirements that Associate Partners need access to if they want to participate in the development or use of the products delivered by the TENCompetence project. Developers are interested in documents in which the code used and the architecture used is being explained and published. Also these documents are stored and maintained in DSpace. The project materials (e.g. tools, widgets, plug-ins) are published under an open licence and will be held available.

6.2.6 Support Pack
The support pack is an enabling tool that makes training possible and supports the administration and provision of tool specific training. As such it is a necessary requirement and may include the items below, which are used to provide information and help to product supporters and users.

- Installation and deployment plan (e.g. installation guide for TENCompetence architecture & tools).
- Training materials: Comprises documents as necessary to provide internal support training on the tool (e.g. tool specific quick guides).
- Support framework: This includes procedures for user support, contact details, etc.
- Product FAQs and known issues: the local system administrators may set up and maintain a repository of support information and identified issues. This can also refer to the open TENCompetence community forum.
- Editor and authoring tools (e.g. the TENCompetence learning activities and test editor ReCourse, or competence profile editor).

**The Installation and Deployment Plan**
This should come with each new release to specify how the product is to be rolled out across the user base. Identification and support for previous releases need also be covered. Plans for product deployment should be part of the internal project plan.

The following aspects should be considered when drawing up a deployment plan:

- identification of release, whether new product or incremental update/upgrade
- specific user or group of users who are affected
- project responsibilities (timescale, migration, management)
- interface with gate process stages – e.g. pilot stage, integration stage, etc.
- identification of learners on-site requirements and restrictions
- **Support framework**
  In addition to the installation and deployment plan (see above), this is to include procedures for user support and identification of issues. For TENCompetence user support will be sustained by an open discussion forum, learner support forum, helpdesk, contact details of product owners etc. The issues which are identified in TENCompetence should be sustained in a FAQ and solutions section.

- **Editors/Authoring tools**
  In order to prepare course materials, activities, assessments and competence profiles the appropriate TENCompetence authoring tools need to be set up and available (e.g. QTI test editor).

- **Document lodgement**
  The support pack is best lodged with the training project management.

**Support pack for specific TENCompetence target user groups**
For the Research community and Individual Learners an open forum shared with a world-wide community of interest provides the necessary economy of scale to be usefully supporting their efforts. In an organisation a more managed and moderated approach can be applied, but they too can make use of the international TENCompetence community (compare this with the German/French/etc international Moodle user communities: e.g. http://www.moodle.de).

To affect changes in your specific instance of the TENCompetence infrastructure and in order to adapt the software to local needs and architecture, the Developers target group, in addition to the above mentioned content of the proposed support pack, may require access to the source code and coding manuals, which TENCompetence maintains in SourceForge.

### 6.2.7 Training Feedback
Collecting feedback on a training course is useful when training is provided on a longer term basis with the view of ongoing improvements on its delivery. It can also be a requirement for internal company reporting purposes. The format of feedback collection can vary, however, an example of the feedback form used in TENCompetence can be found in appendix 1. With this form individuals can rate the specific components of the training course. The combined feedback should result in improvements of the training course and could also lead to improvement of the TENCompetence tools.
- **Document review and approval**
  Although no approval is required, the forms need to be reviewed and analysed to see if the training process can be improved or better training resources can be used.

- **Document lodgement**
  The feedback forms should be lodged in the project archives.

**Training feedback for specific TENCompetence target user groups**
To understand and to be able to implement the tools which have been created by the TENCompetence project, (Individual) Learners and Associate Partners are most likely to require a training course. These courses can be given by experts who have experience in lifelong learning and the TENCompetence model.

The TENCompetence project runs through its lifespan a number of pilots, training workshops and business demonstrators. Substantial feedback mechanisms have contributed strongly to the further improvements in usability of the TENCompetence tools. This expertise is available through the Consortium members.

Developers can take feedback from training exercises as a starting point for further product improvements. A tracker system should help recording and prioritising usability and other software related issues and can be included in the Support Pack. More specific feedback forms or procedures should be used for this specific purpose.

**References**


LOGICA, (2008). *Cortex, a company-wide methodology*
TRAINING COURSE FEEDBACK FORM

Course Title: ____________________________ Tutor (s): ____________________________ Date: ____________________________

Please circle your rating with 1 being the least effective and 6 being the most effective.

<table>
<thead>
<tr>
<th>Low</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Joining Instructions/Pre-Course Information</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>2. Achievement of Course Objectives</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>3. Course Materials Provided</td>
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<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>4. Relevance of Course to your Job</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>5. Effectiveness of the Tutor (s)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>6. Training Room Facilities and Environment</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>7. Catering Arrangements</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Overall Satisfaction Rating</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
</tr>
</tbody>
</table>

Comments:
Which session (s) did you find most useful and why?

Which session (s) did you find least useful and why?

What suggestions do you have for improvements?

Please make comments on any other aspect of the course.

Name: ____________________________ Position: ____________________________ Tel No: ____________________________

(Optional)

RETURN TO: ____________________________
7. Conclusion

The efforts of WP9 to incept, plan, prepare and provide training to the TENCompetence consortium and Associate Partners are largely dependent on the availability of the software and of quality learning content. In the reported phase of the project, with software development still ongoing, emphasis lay on generic training, internal training for project purposes and on support of pilot and implementation testing phases. Towards the end of this phase, however, the focus shifted to supporting authentic learning situations through real-life pilots and business demonstrators. This will lead to more and better insight into the actual implementation and application of the suite of tools, but also to a better understanding of training required in this process.
Appendix 1 – Winter School 2009 (ID9.12)

The third TENCompetence Winter School took place on February 1-6, 2009 in Innsbruck (http://www.tencompetence.org/node/167). It was conceived 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 two TENCompetence Winter Schools received very positive feedback from the attendees, and the current event built on this success and the gained reputation. The theme of this event was “Competence Management in Learning Networks”. The programme included lectures and hands-on sessions from leading experts in the field. The organizers offered space for interactive sessions, informal discussions, group work, and student presentations. A main 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 were invited to participate and contribute to the creation of an exciting learning experience.

To support the event we established several surrounding services for participants and lecturers:
- Flickr: http://flickr.com/photos/tags/tcws09/
- YouTube: http://www.youtube.com/watch?v=BrYcL2nTwUo
- Twitter: http://search.twitter.com/search?q=tcws09 (the search retrieval disappeared after some time)
- Delicious: http://delicious.com/tag/tcws09
- Slideshare: http://www.slideshare.net/tag/tcws09
- LinkedIn: http://www.linkedin.com/e/vgh/1776107/

The Winter School sessions were dealing with the following topics:
- Personal Competence Development
- Replacing Teachers with Crowds
- Networks for Learning Professionals
- Learning Activity Design
- Simulation & Game Based Learning
- Educational Theories, Concepts, Methods
- Mash-Up Personal Learning Environments
- Competence Development Networks
- Disagreement Management
- Telepresence & Streaming Media Systems
- Learning at Work.
17 lecturers (10 from the TENCompetence core partner institutions and 7 external ones) lead the sessions:

- Albert Angehrn, INSEAD, France
- Jon Dron, Athabasca University, Canada
- Dai Griffiths, University of Bolton, United Kingdom
- Hannes Ebner, Royal Institute of Technology, Sweden
- Davinia Hernández-Leo, Pompeu Fabra University, Spain
- Wolf Hilzensauer, Salzburg Research, Austria
- Rob Koper, Open University, the Netherlands
- Bas Krekels, LOGICA, the Netherlands
- Ruud Lemmers, LOGICA, the Netherlands
- Jocelyn Manderveld, SURF Foundation, the Netherlands
- Katrina Maxwell, INSEAD, France
- Ambjörn Naeve, Royal Institute of Technology, Sweden
- Sandra Schaffert, Salzburg Research, Austria
- Peter Scott, Open University, United Kingdom
- Peter Sloep, Open University, the Netherlands
- Fridolin Wild, Vienna University of Economics and Business Administration, Austria
- Scott Wilson, University of Bolton, United Kingdom.

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

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

The event took place nearby Innsbruck, an internationally renowned winter sport centre in Western Austria. The participants were staying in the Tiroler Bildungsinstitut - Grillhof. The application fee was EUR 550 (including accommodation and meals, excluding travelling expenses).
The final programme included lectures, hands-on sessions, group work, a social event, as well as sport activities:

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sunday</td>
<td></td>
</tr>
<tr>
<td>18:00-19:00</td>
<td>Dinner</td>
</tr>
<tr>
<td>Monday</td>
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</tr>
<tr>
<td>07:30-08:30</td>
<td>Breakfast</td>
</tr>
<tr>
<td>08:30-10:30</td>
<td>Learning Networks for Lifelong Learning – Peter Sloep</td>
</tr>
<tr>
<td>10:30-11:00</td>
<td>Coffee Break</td>
</tr>
<tr>
<td>11:00-12:30</td>
<td>Disagreement Management – Ambjörn Naeve</td>
</tr>
<tr>
<td>12:30-13:30</td>
<td>Lunch</td>
</tr>
<tr>
<td>13:30-16:30</td>
<td>Educational Theories and Didactical Concepts – Wolf Hilzensauer, Sandra Schaffert</td>
</tr>
<tr>
<td>16:30-17:00</td>
<td>Coffee Break</td>
</tr>
<tr>
<td>17:00-18:30</td>
<td>Research Perspectives on Web2.0 Mash-Up Environments - Hendrik Drachsler, Christian Glahn Learning in Virtual Gaming Environments: Cultural Issues and Opportunities - Sebastian Kelle, Tanja Kohn</td>
</tr>
<tr>
<td>18:30-19:30</td>
<td>Dinner</td>
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<tr>
<td>19:30-24:00</td>
<td>Social Event</td>
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<tr>
<td>Tuesday</td>
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</tr>
<tr>
<td>07:30-08:30</td>
<td>Breakfast</td>
</tr>
<tr>
<td>08:30-10:30</td>
<td>Replacing Teachers With Crowds - Jon Dron</td>
</tr>
<tr>
<td>10:00-10:30</td>
<td>Coffee Break</td>
</tr>
<tr>
<td>10:30-11:15</td>
<td>Mash-Up Personal Learning Environments 1 - Fridolin Wild</td>
</tr>
<tr>
<td>11:15-11:45</td>
<td>Break</td>
</tr>
<tr>
<td>11:45-18:00</td>
<td>Sport &amp; Leisure Activities - Patscherkofel</td>
</tr>
<tr>
<td>18:30-19:30</td>
<td>Dinner</td>
</tr>
<tr>
<td>19:30-22:00</td>
<td>The Future of Lifelong Learning: Experience the Scenario Method - Jocelyn Manderveld</td>
</tr>
<tr>
<td>Wednesday</td>
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</tr>
<tr>
<td>07:30-08:30</td>
<td>Breakfast</td>
</tr>
<tr>
<td>08:30-12:30</td>
<td>Web 2.0-based Connection Dynamics in Learning Networks - Albert A. Angehrn, Katrina Maxwell</td>
</tr>
<tr>
<td>12:30-13:30</td>
<td>Lunch</td>
</tr>
<tr>
<td>13:30-14:30</td>
<td>Learning Activity Design in Practice: Introduction - Dai Griffiths</td>
</tr>
<tr>
<td>14:30-15:00</td>
<td>Break</td>
</tr>
<tr>
<td>15:00-17:00</td>
<td>Learning Activity Design in Practice: IMS LD Authoring Workshop – Dai Griffiths Analysis of Multiple Pilots in Networks for Competence Development - Davinia Hernández-Leo</td>
</tr>
<tr>
<td>Time</td>
<td>Event</td>
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<tr>
<td>17:30-18:30</td>
<td>Learning Activity Design in Practice: Discussion - Dai Griffiths</td>
</tr>
<tr>
<td>18:30-19:30</td>
<td>Dinner</td>
</tr>
<tr>
<td>19:30-21:00</td>
<td>Optional Sessions</td>
</tr>
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</table>

**Thursday**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>07:30-08:30</td>
<td>Breakfast</td>
</tr>
<tr>
<td>08:30-10:30</td>
<td>Participants’ Presentations - Scott Wilson</td>
</tr>
<tr>
<td>10:30-11:00</td>
<td>Coffee Break</td>
</tr>
<tr>
<td>11:00-12:30</td>
<td>Mash-Up Personal Learning Environments 2 - Fridolin Wild, Hannes Ebner</td>
</tr>
<tr>
<td>12:30-13:30</td>
<td>Lunch</td>
</tr>
<tr>
<td>13:30-15:00</td>
<td>Exploring the daunting Lifelong Learning Landscape – Ruud Lemmers, Bas Krekels</td>
</tr>
<tr>
<td>15:00-15:30</td>
<td>Coffee Break</td>
</tr>
<tr>
<td>15:30-16:30</td>
<td>Patterns of VLE Use and Approaches to Learning - Mike Mimirinis</td>
</tr>
<tr>
<td>16:30-17:00</td>
<td>Social Media/Web 2.0 in the Greek Uprising - Mike Mimirinis</td>
</tr>
<tr>
<td>17:00-18:30</td>
<td>Competence Profiles &amp; Personal Development Planning - Rob Koper</td>
</tr>
<tr>
<td>18:30-19:30</td>
<td>Dinner</td>
</tr>
<tr>
<td>19:30-21:00</td>
<td>Optional Sessions</td>
</tr>
</tbody>
</table>

**Friday**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>07:30-08:30</td>
<td>Breakfast</td>
</tr>
<tr>
<td>08:30-09:15</td>
<td>New Channel Thinking – Peter Scott</td>
</tr>
<tr>
<td>09:15-10:00</td>
<td>The Grand Challenge for TEL: STELLAR – Peter Scott</td>
</tr>
<tr>
<td>10:00-10:30</td>
<td>Coffee Break</td>
</tr>
<tr>
<td>10:30-12:00</td>
<td>Summary and Closing Discussion</td>
</tr>
<tr>
<td>12:00-13:00</td>
<td>Lunch</td>
</tr>
</tbody>
</table>
TENCompetence Winter School Evaluation

14 persons (including a couple of lecturers) filled in the prepared evaluation forms and provided valuable comments and suggestions regarding the event.

Part 1: General Issues

1. Which aspects of this event were most beneficial for you?
Almost all the respondents considered social networking and knowledge exchange as the main benefits. Especially interactive sessions were well received. Some people (3) appreciated new learning approaches and techniques they could experience. Also an overview of the current research, an opportunity to improve their presentation skills, and a motivation factor were favoured by individuals.

“Interesting Lecturers! - not only concerning their topics and research, also in respect to their personalities”.

“The duration of the Winter School was long and intensive, but I think this was the success factor in establishing meaningful relationships.”

2. Which aspects of this event were least beneficial for you?
A couple of people did not like technical sessions, then those that were not related to their work, as well as long lectures without active participation. The main problem seemed to be the rich program, which sometimes optionally continued after the dinner. Perhaps we should have better communicated the responsibility of each participant for personalization of his or her individual time schedule. After previous experience our aim was to minimize parallel sessions to reduce restrictions and to provide more choices for people instead. One person did not like that she had to pay for the event personally.

3. What aspects were missing in this event according to your opinion?
Some people felt that a more formal introduction of participants would have been better including a presentation of their work. However, after previous feedback from earlier events, we had skipped the individual introductions at the beginning and encouraged people to do it on Moodle or informally. This part could be probably integrated into the social event at the beginning.

The lack of more free time has been mentioned as well in various forms – more pauses, time to reflect and relax, or sightseeing. This is related to the above mentioned adjustment of the time schedule by each person. Instead of sightseeing we organized an afternoon with sport activities, which was optional to attend.

Some concrete topics may have been missed: more pedagogy, statistical workshops, and methods of evaluation. Interestingly, the workshop on evaluation (running in parallel with another one) had minimal audience.
4. Please add any **additional comments** which will help us in planning the next Winter School.

Several people mentioned again that sessions should be shorter (60-90 min) and more free time is needed to relax, reflect and discuss on sessions during breaks informally. More time to discuss the work of PhD students was also asked for. One person suggested to gather the needs of PhD students at the beginning and to organize ad-hoc sessions with experts accordingly.

The right mix of didactical, social science, and technology was well received. One person suggested a session on how to improve presentation skills and another one an event at the beginning that would help to get to know each other in a funny way.

**Part 2: Organizational Issues**

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

As already indicated above, in general people consider the schedule as challenging. Although they appreciate that they can learn a lot, they also suggest more breaks and time for informal discussions, duration of a session limited to 90 min, and no sessions after the dinner. Also more emphasis on discussions involving participants has been recommended.

Compared to the previous years there were no complaints about parallel sessions (actually there was one suggestion to organize parallel sessions instead of evening ones), but we should better communicate the responsibility of participants for their own schedule.

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

People were satisfied with the variety and a good range of diversity in the sessions. Usually they like interactivity, hands-on sessions, workshops, group work, and presentations of PhD students. A couple of opinions express sometimes a bit too much teamwork when not necessary. A fixed time slot (e.g. 30 min) for discussions at the end of each session has been suggested too.

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

Participants appreciated the quality of the organization very much (often using superlatives), explicitly mentioning good food and ad-hoc service. They suggested a printed programme for everybody (one was published at the reception) and regarded evacuation to another hotel as an issue (this did not concern participants, but organizers).

8. How could we improve the organization?

We received very positive responses regarding the organization. One person thinks that it would be a good idea to limit parallel sessions and we should remove them completely. Another one suggests that signing up for lectures in advance would enable parallel sessions. One asks for a more decentralized structure with more sessions and smaller,
more intensive, less formal activities. There is a proposal to have some activities to
discover the city and multi-cultural time-outs, then longer lunch and dinner breaks are
requested, as well as some open space methods to organize the come together. Finally,
badges for new people would be helpful.

**Part 3: Course Specific Issues**

The participants have 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 evaluations oscillate around
positive, with the mean ranking 2.07 (from 188 marks altogether), which is very similar
to the previous years (2.03 from 285, 2.01 from 295 marks).
<table>
<thead>
<tr>
<th>Title</th>
<th>Lecturer</th>
<th>Evals</th>
<th>Avrg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Educational Theories and Didactical Concepts</td>
<td>Hilzensauer, Schaffert</td>
<td>10</td>
<td>1.00</td>
</tr>
<tr>
<td>Replacing Teachers with Crowds</td>
<td>Dron</td>
<td>11</td>
<td>1.64</td>
</tr>
<tr>
<td>Web 2.0 Connection Dynamics in Learning Networks</td>
<td>Angehrn, Maxwell</td>
<td>11</td>
<td>1.64</td>
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<tr>
<td>Learning Activity Design in Practice: Workshop</td>
<td>Griffiths</td>
<td>9</td>
<td>1.67</td>
</tr>
<tr>
<td>PhD Presentations</td>
<td>Wilson</td>
<td>9</td>
<td>1.67</td>
</tr>
<tr>
<td>Mash-Up Personal Learning Environments 2</td>
<td>Wild, Ebner</td>
<td>9</td>
<td>1.67</td>
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<td>Research Perspectives on Web 2.0 Mash-Up Environments</td>
<td>Drachsler, Glahn</td>
<td>8</td>
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<td>Mash-Up Personal Learning Environments 1</td>
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<td>Learning Activity Design in Practice: Introduction</td>
<td>Griffiths</td>
<td>9</td>
<td>2.00</td>
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<tr>
<td>Analysis of Multiple Pilots in Networks for Competence Development</td>
<td>Hernandez-Leo</td>
<td>4</td>
<td>2.00</td>
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<tr>
<td>Exploring the daunting Lifelong Learning Landscape</td>
<td>Lemmers, Krekels</td>
<td>8</td>
<td>2.13</td>
</tr>
<tr>
<td>Telepresence &amp; Streaming Media Systems</td>
<td>Scott</td>
<td>8</td>
<td>2.13</td>
</tr>
<tr>
<td>The Future of Lifelong Learning: Experience the Scenario Model</td>
<td>Manderveld</td>
<td>10</td>
<td>2.30</td>
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<tr>
<td>Competence Maps &amp; Personal Development Planning</td>
<td>Koper</td>
<td>12</td>
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<td>The Grand Challenge for TEL: STELLAR</td>
<td>Scott</td>
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<td>2.40</td>
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<td>Learning in Virtual Gaming Environments</td>
<td>Kelle, Kohn</td>
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<td>Naeve</td>
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<td>Patterns of VLE Use and Approaches to Learning</td>
<td>Mimirinis</td>
<td>8</td>
<td>3.50</td>
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<tr>
<td>Social Media/Web 2.0 in the Greek Uprising</td>
<td>Mimirinis</td>
<td>8</td>
<td>3.50</td>
</tr>
</tbody>
</table>

**Part 4: Geographical Spread and Impact of Adoption**

14 participants (from 6 countries) 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 better than average (2.79), the use of technology in the delivery of lifelong learning in their country even lower (3.29). The support which TENCompetence will eventually offer to help
develop competence in lifelong learning was rated higher than average (2.23). The first two indicators were slightly higher than one year ago, the third one lower.

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 hope that the TENCompetence infrastructure will support them in lifelong learning as well as personal competence and career development. They expect technical support and networking opportunities. One says: “support isolated people and we can find the infrastructure to develop ourselves”.

**Part 5: Participation**

14. Are you willing to participate in the TENCompetence project? Some people are already part of the project, the others are interested in participation, but sometimes do not see their opportunities how to contribute. They offer their capacities regarding organization of events, writing up and editing relevant materials, participation in pilots and trainings, testing tools, as well as reflecting policies of implementation.

**Conclusion**

It was an interesting opportunity to organize three TENCompetence Winter Schools related to lifelong competence development and it enriched us with some worthwhile experience. First of all, it is important to have a relevant topic that is attractive for participants. Then it is crucial to choose a core group of very good lecturers, which we have found directly in the project. These experts together with invited external ones were able to attract enough participants, despite the rather challenging business model, which did not allow us to provide scholarships to PhD students (after the first year). Of course, a suitable venue with well functioning infrastructure is also a must for the success of similar events.

From the program perspective it can be recommended to offer a variety of educational approaches, providing enough space for interactivity, workshops, hands-on sessions, presentation of participants, and informal discussions. Trying to offer a rich program the organizers must be careful to provide also enough free time for reflection and to relax. Parallel sessions should be planned cautiously, considering possible conflicts of interests. We tried to avoid them using available free time, but then the participants should be aware that they do not have to attend all the sessions and that they are responsible for scheduling their learning and leisure activities according to their priorities and abilities. This may be a way how to support individualized training and make more people satisfied.

All in all, based on the received formal and informal feedback we can consider TENCompetence Winter Schools as very successful training events that helped to get together people interested in the highly important topic of lifelong competence development and to support exchange of the state-of-the-art research results in this field. It would be good if the established tradition could continue in the future, perhaps supported by other projects.
Appendix 2 – Web Seminars

Note: Recorded sessions are available also on the Surfmedia server.

What Do Users Really Want from an Adaptive Learning System?

Dr. Martin Harrigan - Trinity College Dublin, Ireland, Kai Michael Höver - imc AG, Germany

The ability of an e-learning system to adapt to the manifold nature of learners' abilities and characteristics is promising. Nowadays, Learning Management Systems (LMSs) deliver learning content to learners. However, they have weak or no adaptive functionality and hence do not consider the diversity of learners. Many types of adaptive features and techniques have been considered in research. It is not obvious which features and techniques are most wanted by both trainers and learners. To ensure the value of an adaptive learning system and its acceptance, the users' requirements, preferences, and expectations need to be considered. The EU co-funded GRAPPLE (Generic Responsive Adaptive Personalized Learning Environment) project aims at delivering to learners an adaptive technology-enhanced learning environment incorporated into LMSs. To ensure target-oriented work from the beginning of the project, a requirements analysis involving stakeholder interviews has been conducted in both academic and business settings to gather the needs and expectations of stakeholders with regards to adaptive functionalities.

31/03/2009 | PPT | Paper | Technical Report

Modularization of the Learning Architecture: Supporting Learning Theories by Learning Technologies

Dr. Fredrik Paulsson - KTH, Sweden

During the twentieth century, the focus of pedagogical research and practice has gone from behaviourism, via cognitivism, to learning theory based on constructivism. Changes in learning objectives and an increasing cognitive complexity of learning tasks are likely to have contributed to this evolution. This puts new requirements on the design and implementation of pedagogical instruction (instructional design) and its application to learning technology. Using instructional design together with technology requires the pedagogical process to be predetermined, which is partly contradicted by the nature of constructivism. Many constructivist approaches require social interaction and dynamic learning environments that can adapt to changes that are required by different pedagogical approaches. Those requirements have been met using modular approaches for content, i.e., learning objects, implemented in non-modular web-based virtual learning environments (VLE), like learning management systems (LMS). This research has shown that it is possible to incorporate learning content and the VLE into the same
modular framework in order to provide the flexibility needed for learning technology to better adapt to changing pedagogical requirements.

22/10/2008 | Recorded session | Flash | PhD Thesis

Standards based interoperability for searching in and publishing to learning object repositories

Dr. Stefaan Ternier - K.U.Leuven, Belgium

Over the last few years there is a growing interest in the use of learning objects as digital resources for learning. As authoring high quality e-learning content is often expensive, reuse of such content is of great value. Many Learning Object Repositories have been deployed over the World Wide Web over the past years. Together, these repositories host a vast amount of learning objects. This dissertation addresses two questions to enable better "share and reuse" of learning objects: 1. How can we make it easier to find relevant objects? Many learning object repositories provide their community with a specific search interface. This impedes discovery of relevant learning objects, since users must search each repository individually. This dissertation investigates whether and how a uniform search can be provided to a collection of repositories. 2. How can we facilitate making objects available for reuse? The traditional procedure for publishing learning objects to a repository is tightly integrated with a specific repository, whereas the distribution of materials to learners typically relies on a Learning Management System (LMS). In this dissertation, we investigate how loosely coupled publication services can be integrated into learning or authoring environments, through a publishing protocol.

10/09/2008 | Recorded session | PPT

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

Dr. Natalia Stash - Eindhoven University of Technology

In this presentation I will talk about the AHA! system (Adaptive Hypermedia Architecture) developed in Eindhoven University of Technology that 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. I will also discuss the approach to incorporating cognitive/learning styles (preferred ways of learning) in AHA! as a proof of the general-purpose character of the system.

25/06/2008 | Recorded session | PPT
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 of yet. In this seminar, an overview of classification systems that aimed at classifying pedagogical methods or relevant components of pedagogical methods is given. Also, some results of analyses performed on a chosen portion of the classifications are brought forth for discussion. The work presented builds the foundation for a revised approach to the development of a classification of pedagogical methods.

17/06/2008 | Recorded session | PDF

What's so special about design research?

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

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 supposed 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 artefact building and testing. And in the course of building and testing artefacts, 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 artefacts to be developed. The seminar will discuss the differences between 'ordinary' and design research, with a focus on the practical consequences one may infer for setting up and conducting design research.

29/05/2008 | Recorded session | PDF
Learning with OpenLearn: reflections upon the learner and provider experiences
Andreia Inamorato dos Santos – Open Content Research Fellow, OpenLearn

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 of 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.

20/05/2008 | Recorded session | PowerPoint
## Appendix 3 – List of Associate Partners

### Overview signed Memoranda of Understanding

**Status d.d 3 March 2009**

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<th>nr</th>
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<td>1</td>
<td>TENCompetence Consortium, University of Wollongong, Australia</td>
<td>23-01-2006</td>
<td>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</td>
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<td>2</td>
<td>TENCompetence Consortium, LORENET (LICEF), Canada</td>
<td>07-09-2006</td>
<td>Distinguished Visiting Scholars Programs. Joint publications. Joint applications for research funding. Co-experimentation and validation of LT. Contact: Rob Koper</td>
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<td>TENCompetence Consortium, Institute of Informatics and Software Engineering, Slovak University of Technology in Bratislava, Slovakia</td>
<td>12-12-2006</td>
<td>Pilots with integrated system, evaluation and dissemination. Contact: Milos Kravcik</td>
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<td>TENCompetence Consortium, Department of Information Technologies, Vilnius Gedimas Technical University, Lithuania.</td>
<td>18-12-2006</td>
<td>Collaboration and exchange of achievements. Contact: Milos Kravcik</td>
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<td>Future user, technology service provider to members, promotion of best practices, dissemination.</td>
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<td>20-12-2006</td>
<td>Dissemination and collaboration in LD., knowledge and competence development, education process modelling. Contact: Milos Kravcik</td>
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| 26  | TENCompetence        | Agro-Know Greece      | 29-4-2008 | Participation in TENCompetence events  
|     | Consortium           |                       |      | Connecting rural communities  
|     |                      |                       |      | AgroKnow to TENCompetence  
|     |                      |                       |      | Connection Agroknow-TENCompetence services  
|     |                      |                       |      | Design, piloting of business model Agroknow-TENCompetence  |
| 27  | TENCompetence        | Salzburg research     | 29-5-2008 | Joint special tracks in  
|     | Consortium           | Forschungsgesellschaft Austria |      | events/conferences  
|     |                      |                       |      | Joint co-operation on common research topics  
|     |                      |                       |      | Participation TENCompetence Winter School  
|     |                      |                       |      | Joint research and dissemination  |
| 28  | TENCompetence        | UHI Learning and Information Services  
|     | Consortium           | UHI Millenium Institute | 23-09-2008 | Workshop participation  
|     |                      |                       |      | Knowledge sharing  
|     |                      |                       |      | Staff development  
|     |                      |                       |      | Engagement in professional networks  |
| 29  | TENCompetence        | GSIC/EMIC group of University of Valladolid | 23-10-2008 | Use runtime IMS LD QTI system developed in TENCompetence (WP6)  
|     | Consortium           |                       |      | Develop authoring tool for pattern based creation of units of learning and assessment compliant to IMS  
<p>|     |                      |                       |      | Develop web based editor (similar to Collage) to enact with LD and QRTI runtime system.  |</p>
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