

UBICAMP-WP3-002



WP3. Virtual Mobility Framework: final deployment

Virtual Mobility Framework

PROYECTO UBICAMP



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Authors: UAM Team (Dr. David Camacho, Mrs. Gema Bello, Dr. Hector Menéndez, Dr. Antonio Gonzalez)
Technical School of Engineering
Autonomous University of Madrid
Madrid
Spain

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Contents

1	Introduction	4
2	UbiCamp Framework Design.....	5
3	UbiCamp Framework Deployment.....	10
3.1	UbiCamp Portal	10
3.2	University of Oviedo.....	11
3.3	Autonomous University of Madrid.....	14
3.4	Yaşar University.....	16
3.5	Vytautas Magnus University (VDU)	18
3.6	University of KTU.....	20
3.7	Pegaso Telematic University	22
4	Conclusions and Final remarks	25

1 Introduction

The UbiCamp project (526843-LLP-1-2012-ES-ERASMUS-ESMO) emerged as an attempt to respond to the usual obstacles to carry out Virtual Mobility (hereinafter VM - Virtual Mobility) experiences in higher education institutions inside the European Union. UbiCamp is an acronym from "Ubiquitous Campus", and tries to become a VM model that allows an easy integration of new institutions, through encouraging a decentralized model in which each institution will only have to meet the quality requirements raised, and where the technology integration could become as a simple process.

The main goal of this document is to present how the UbiCamp framework designed was finally deployed by partners to carry out the Virtual Mobility between the Institutions involved in this pilot experience.

2 UbiCamp Framework Design

The UbiCamp framework should cover, according to the initial specifications from [2], the following features:

- **Technological:** To design those basic technical criteria that must be followed to correctly construct the contents, and to ensure its quality. These standards should be used to design and develop the learning objects (both academic and cultural).
- **Teaching / pedagogical criteria:** Standard definition of the minimum contents that any learning object should have. It also defines the templates for curriculum teaching within the framework, in order to organize the curriculum design for VM when two, or more, higher education institutions are involved.
- **Cultural / linguistic issues:** The main goal of these issues is to ensure the adequate acquisition of basic cultural contents, previously defined by each partner in accordance with some established minimums. The second goal of this feature is to provide an appropriate framework which facilitates an incremental learning of the native language from the host university.
- **Network of virtual environments:** To define and implement different cultural networks that students could use to obtain an adequate support for mobility. These cultural networks are designed using any of the following technologies: social networking platforms (Ning, KickApps, CrowdVine, GoingOn, CollectiveX...), virtual worlds (OpenSim, OpenCobalt, Kaneva, SecondLife), Virtual Environments (MMOGCHART , OLIVE, diving, ...), sharable content repositories, etc.
- **Evaluation/assessment methods:** To define the evaluation methods of the educational contents designed. To develop and define the evaluation methods each university has the autonomy to adapt their current assessment methodologies (in their particular institutions) to those defined in the project. In these methods some quality characteristics are defined, that could be used later to measure those cultural and linguistic skills to be acquired by the students during the mobility experience. This is one of the main differences between traditional e-learning experiences and our approach to VM.
- **Management:** A complete documentation based on current and past projects has been developed (management solutions based on VM such as: VRTUOSI, OER, TeaCamp, etc.). It is used to define a management framework to solve part of the current barriers that appear in the partner institutions. It is based on the physical Erasmus mobility.

From previous definitions, it is necessary to specify frameworks that allow the virtual exchange within the UbiCamp environment. These frameworks can be described as follows:

- **Academic Framework:** This section defines all the standards related to academic content and quality, and the basic requirements or methods that allow the assessment in curricular exchange. It is also needed to define how to make the curricular recognition of students and teachers.
- **Cultural Framework:** It is necessary to define the cultural content that the project tries to provide to students and teachers involved. The minimal linguistic content is defined (previous evaluation, additional content, etc.). The definition of educational goals and the utilization of social networks and virtual environments are needed. It is also necessary to define the curriculum assessment and recognition of mobility, supported by the acquisition of cultural knowledge to differentiate from traditional international e-learning.

- **Technological Framework:** This framework defines any aspect related to technology that is used in the project, describes the minimum technological and sharable resources for each participating institution. This framework also describes other features, such as information exchange standards, etc.
- **Training Framework:** This framework defines the available resources for the participants in the mobility experience. These resources ensure an adequate learning acquisition (technology, pedagogy, etc.) through the whole VM process.
- **Management Framework:** This framework summarizes the different administrative processes required to perform a VM experience. From institutional arrangements to participate in the Virtual Campus UbiCamp, to teachers and students agreements to participate in a VM experience. Besides, it defines the roles for each participating institution.

The document (2) provides a complete and detailed description of the main goals and features for each framework dimension.

Next, only the basic and minimal requirements that were originally agreed by all the partners are shown. Later, a complete analysis will be carried on based on both, these requirements and the final decision made by each partner to implement the framework.

1 Academic Framework

- Learning Content Standards.** *Minimal requirements:* It is mandatory to use some kind of standard to facilitate the distribution of learning contents. The contents of the subjects will be open and free.
- Curricular design template.** *Minimal requirement:* A template will be provided by UbiCamp project to any participant in the VM. Any UbiCamp partner, or any participant in the project, must employ this Curriculum Design (CD) template to describe the subjects offered in the project.
- Educational content evaluation.** *Minimal requirements:* It is mandatory to define both, the minimum knowledge that students should acquire in the VM experience, and the establishment of evaluation conversion between participating institutions. The Curriculum Design Template should provide the necessary information to describe the knowledge to be acquired by the students, and therefore to proceed with the recognition of credits. The recognition of ECTS credits must be included in the mobility agreement among the institutions.
- Credit Recognition for curricular achievements.** *Minimal requirement:* The curricular achievements must be at least recognized to students involved in VM. This recognition of curricular achievements (partial or total) must be clearly indicated in the HEI institutions agreement. Wherever possible, some kind of recognition to tutors and teachers is strongly encouraged.

2 Cultural Framework

- Cultural Contents Definition.** *Minimal requirements:* Any HEI institution must provide some kind of cultural contents. At least some information related to Language, Culture and Standards will be produced and provided to the students enrolled in the VM.

- b. **Linguistic Content Definition.** *Minimal requirements:* Any HEI (host) institution must provide some information about their own mother language. The minimal content (language) definition could be carried out through web sites and videos. The Linguistic contents provided by each partner will be published at UbiCamp web portal.
- c. **Social Networks & UbiCamp SN approach.** *Minimal requirements:* Any HEI (host) institution should provide a dedicated account in at least one standard SN (Facebook or Twitter) to VM.
- d. **Accessing websites with social contents.** As it was previously defined, the social contents should be managed through the Web portal at UbiCamp.
- e. **Other virtual environments.** No minimal requirements were defined.
- f. **Cultural content evaluation.** *Minimal requirements:* Any HEI (host) institution will provide a mechanism to evaluate (qualitative or numerical) the cultural contents provided. This evaluation could be (or not) later incorporated in the final evaluation of the subject. These evaluation mechanisms must be public and accessible to any interested user (students, tutors, teachers, etc...).
- g. **Curricular mobility recognition vs. international e-learning.** *Minimal requirements:* Not all the institutions involved could allow the recognition of the curricular mobility. For this reason, this recognition should depend on the particular HEI. Due to the recognition of the curricular mobility will strongly depend on the institutions involved, it should not be mandatory although it is recommended whenever it is possible.

3 Technological Framework.

- a. **Web Portal.** *Minimal requirements:* From analysis carried out in [1] the main conclusion is that the final design of the UbiCamp portal should be distributed. This portal will provide an adequate access to any Virtual Campus
- b. **Integration Technologies of technical environments from participant entities.** *Minimal requirements:* UbiCamp is based on a distributed design. Therefore, no particular security technologies are considered in this stage of the project. In those centralized services developed by UbiCamp (i.e. Virtual Worlds for cultural/linguistic issues), the partner responsible of this service (i.e UAM) will provide an adequate security access to any user (teachers, students ...)
- c. **OERs Technological Standards.** *Minimal requirements:* Several standards will be used to guarantee the access to the educational resources developed at UbiCamp project. The standard used will be published in the UbiCamp portal.
- d. **Videoconferencing Systems.** *Minimal requirements:* Any participant in the VM must provide an open videoconferencing system to allow virtual sessions between students and teachers/tutors. Open source, and free, videoconferencing systems are recommended (e.g. Skype)
- e. **3D Immersion Technologies.** *Minimal requirements:* No initial requirements will be needed to any partner or people enrolled in a VM experience.
- f. **Video Technologies.** *Minimal requirements:* The video technology used (formats and software or applications to generate the contents) is directly related to the multimedia (audio and video) player used. These software applications could experiment some problems with some of previous formats.

Popular video formats such as MP4, MPEG-4 and MOV, and audio formats such as MP3 and WAV are recommended.

- g. **Language Learning Technologies.** *Minimal requirements:* Every partner should provide at least several documents and videos to allow take a first contact with the HEI-Host language. These documents and videos could be directly obtained from high quality web sites or videos from YouTube (or other similar web apps) that have been previously analysed (and selected) by teachers and educators.
- h. **Social Network Technologies.** *Minimal requirements:* Each institution should have an account in each Social Network considered (e.g. Facebook). The information will be enriched with the information extracted from a crawler (robot) that will search for news and information related to each institution.
- i. **Information Filtering Context-based Systems.** *Minimal requirements:* A robot will be created which will check the Twitter Social Network (UniOvi). The information provided by automatic robot (generated by UniOvi) will be based on a public standard representation that could be later used, and integrated, in the UbiCamp web portal.
- j. **Virtual Environments.** *Minimal requirements:* Not will be considered in this phase, but some kind of Virtual Environments (based on Virtual Worlds technologies) will be explored.

4 Training Framework

- a. **TeaCamp LEM.** *Minimal requirements:* Every participant in the VM experience must provide a free access to a LEM. The final election of this LEM (i.e. Moodle, BlackBoard, Claroline...) should be open, but each participant should provide the adequate information (i.e. installation guides, beginner guides, etc...) to allow to any student to work with this LEM.
- b. **OERs Technology Standards.** See 3.c
- c. **Training Content Evaluation.** *Minimal requirements:* Every participant should provide two different evaluations, academic and cultural. The first one (academic) will be clearly defined and detailed in the Curricular Design Template, and will take into account the possible recognition of credits (to students) that should appear in the VM agreement. The second one (cultural), could be numerical or only qualitative, this evaluation could be part (or not) of the final qualification obtained by the student.

5 Management Framework

- a. **Institutional Participation Agreements.** *Minimal requirements:* An Institutional Participation Agreement (IPA) template is defined by UbiCamp partners, and it used to manage the participation of others HEI in a VM experience. This IPA template should be accessible through UbiCamp portal.
- b. **Course Offered.** *Minimal requirements:* The course (subjects) offered should be carried out through UbiCamp partners. The information is available through the Web portal.
- c. **Commitments for participating teachers.** *Minimal requirements:* The recognition of teachers/tutors participation in a VM experience will depend on the norms and regulations from each HEI. For this reason, this recognition cannot be ensured.

- d. **Participant roles and responsibilities for each institution.** Previously defined, see (2).
- e. **Bilateral Agreements for Virtual Mobility.** *Minimal requirements:* A Bilateral Agreement for VM (BAVM) template is defined by UbiCamp partners, and later used to manage the participation of others HEI in a VM experience. This BAVM template should be accessible through UbiCamp portal.

3 UbiCamp Framework Deployment

This section shows for the Web Portal of the project and each partner, the final implementation and deployment of the VM framework.

3.1 UbiCamp Portal

It is the main UbiCamp Virtual Campus access point (<http://www.ubicamp.eu>). This Web Portal contains all the virtual campus available services, and provides access to all participant institutions. It contains the project data, results and news (such as guides, curricular design templates, curricular recognition for students and teachers, etc...). Moreover, It is the access point for students and professors to the campus and the subjects with the academic and cultural contents from each institution.

Framework	Academic	Cultural	Technological	Training	Management
Features					
Technological	N/A	N/A	UbiCamp Portal	Web Portal for Ubicamp Training material	Institutional Participation Agreements Template design & definition
Teaching & pedagogical criteria	Curriculum design templates	N/A	N/A	N/A	Courses (offer). Fix a schedule and the process to offer courses Teachers participants Agreements
Cultural / linguistic issues	N/A	N/A	N/A	N/A	N/A
Evaluation methods	Curricular Design Template	N/A	N/A	Academic evaluation included in the Curricular Design	N/A
Network virtual environments	N/A	N/A	Ubicamp account in Facebook	N/A	N/A
Management	Information of Credit recognition for curricula merits to both; <u>students</u> (through ECTS recognition) and <u>teachers/tutors</u>	N/A	N/A	N/A	Bilateral agreements (BAVM templates)

The deployment of Ubicamp Portal has been featured by:

- **Academic:**
 - The **web portal** containing the project data, results and news (such as guides, curricular design templates, curricular recognition for students and teachers, etc...) can be found in:
<http://www.ubicamp.eu/>
 - The detail of all the courses can be found in:
<http://ubicamp.ii.uam.es/courses>
- **Cultural Content:** The **Social Network** used was Facebook through the official Ubicamp account:
<https://www.facebook.com/pages/Ubicamp-Virtual-Mobility-for-Universities/645020148883781>
- **Technological Content:** UbiCamp portal provides an adequate access to any Virtual Campus:
<http://www.ubicamp.eu/campuses>
- **Training:** All the training manuals for student, teachers and management can be found in:
<http://www.teacamp.eu/moodle2>
- **Management:** All the information (Participation Agreement (IPA) template and Bilateral Agreement for VM (BAVM) template) can be found in Ubicamp portal:
<http://www.ubicamp.eu/>

3.2 University of Oviedo

Framework	Academic	Cultural	Technological	Training	Management
Features					
Technological	https://www.campusvirtual.uniovi.es/	Videos SCORM tools (UDUTU) Youtube Web pages	https://www.campusvirtual.uniovi.es/ Web Portal http://www.ubicamp.eu/campuses/uniovi/sociocultural/presentation	Installation & user guides www.teacamp.eu/moodle2	N/A
Teaching & pedagogical criteria	Learning Standards (OER) OCW http://ocw.uniovi.es/	http://www.ubicamp.eu/campuses/uniovi/sociocultural/presentation	OERs Technology Standards (OCW) Videoconferencing Systems (Adobe Connect) Virtual Campus	www.teacamp.eu/moodle2	N/A

	vi.es/ subject/courses publication https://www.campusvirtual.uniovi.es/		(Moodle)		
Cultural / linguistic issues	Social Networks (Twitter Facebook) https://www.campusvirtual.uniovi.es/	https://www.campusvirtual.uniovi.es/ http://www.ubicamp.eu/campuses/uniovi/sociocultural/presentation	Video technologies. Video (MP4, MPEG-4, MOV). SCORM	https://www.campusvirtual.uniovi.es/ http://www.ubicamp.eu/campuses/uniovi/sociocultural/presentation www.teacamp.eu/moodle2	N/A
Evaluation methods	Academic Self-assessment Assignments Test Exams	Cultural content evaluation. Using tests development in Virtual Campus of UNIOVI Self-assessment	Virtual Campus (Moodle) https://www.campusvirtual.uniovi.es/	N/A	N/A
Network virtual environments	Twitter Facebook	Twitter Facebook	Social networks Virtual environments	N/A	N/A
Management	Credit recognition for students (through 6 ECTS recognition) and IR Office as coordination bridge	IRO (Int. Relations Office)	N/A	N/A	N/A

The deployment of Oviedo University has been featured by:

- **Academic: Incoming students** - We have finally received 7 students in School of Computer Science Engineering (1 from Yasar University and 6 from Vytautas Magnus University), 3 students in the Faculty of Teacher Training and Education, (2 from Vytautas Magnus University and 1 from Università Telematica Pegaso) and 15 students in the Faculty of Commerce, Tourism and Social Sciences (5 from Vytautas Magnus University and 10 from Università Telematica Pegaso). A total of 25 and 3 of them have received the sociocultural certificate of UbiCamp.
- **Academic: Outgoing students** – We have finally sent 3 students to Kaunas University of Technology, 6 students to Vytautas Magnus University and 3 to Yasar University. A total of 12 students and 11 of them have passed the courses and are processing with the course recognition at UNIOVI

The final implementation of the academic issues can be consulted at:

- The **OCW portal** developed by UNIOVI team can be found in:
<http://ocw.uniovi.es/>
- The **Social Network** used was Twitter and Facebook through the official UNIOVI accounts and the Innovation Centre (C1NN).
<https://twitter.com/InnovaUniovi>
https://twitter.com/uniovi_info
<https://www.facebook.com/UniversidadOviedo?fref=ts>
<https://www.facebook.com/pages/Ubicamp-Virtual-Mobility-for-Universities/645020148883781>
- All the **video-lectures** have been performed through Adobe Connect.
<https://videoconferencias.uniovi.es/>
- There were 4 courses of 6 ECTS: Corporate Social Responsibility, Introduction to Economics, Innovation and Project in primary education and Software Architecture. The details can be found in:
<http://www.ubicamp.eu/courses>
- The **coordination office** was the International Relationships Office from the University:
<http://www.uniovi.es/en/internacional/extranjeros>
- **Cultural Content:** All Videos and resources and technologies related to the Socio-Cultural content can be found in the UbiCamp web but also we have created a specific subject in the Virtual campus:
<http://www.ubicamp.eu/campuses/uniovi/sociocultural/presentation>
<https://www.campusvirtual.uniovi.es>
- **Technological Content:** All the **technological features** are described in the Academic and Cultural Content.
- **Training:** Training on VM for students was implemented using training material at:
<http://www.teacamp.eu/moodle2/course/view.php?id=42>

- **Management:** The management has been performed by IRO, faculties and Innovative studies Institute as indicated by internal regulations. The procedure are available here:

http://www.teacamp.eu/moodle2/pluginfile.php/3234/mod_label/intro/Resoluci%C3%B3n%20MV%20uniovi.pdf

3.3 Autonomous University of Madrid

Framework	Academic	Cultural	Technological	Training	Management
Features					
Technological	N/A	Videos web pages based (open access) YouTube Wikis	Web Portal Wikis OCW Virtual Worlds (UAM group)	LEM (Moodle) Installation & user guides	N/A
Teaching & pedagogical criteria	Learning Standards (OER) OCW subject/courses publication	N/A	OERs Technology Standards (OCW) Videoconferencing Systems (Skype)	OERs (OCW)	N/A
Cultural / linguistic issues	Social Networks (Twitter Facebook) Virtual Worlds Skype	Web sites Videos (YouTube) 3D technologies (Virtual Worlds)	Virtual Worlds Video technologies. Audio (MP3, WAV), Video (MP4, MPEG-4, MOV).	N/A	N/A
Evaluation methods	Academic (numerical, Curr. Design.): 3 evaluations (1 test, 1 exam and 1 practical assessment)	Cultural content evaluation. Using tests development in VW The results from the evaluation have not been considered	Moodle	N/A	N/A

Network virtual environments	Twitter Facebook	Twitter and Facebook (institutional UAM Univ.) Virtual Worlds	Social networks Virtual environments. (Virtual Worlds).	N/A	N/A
Management	Credit recognition for students (through 6 ECTS recognition) and IR Office as coordination bridge	IRO (Int. Relations Office)	N/A	N/A	N/A

The deployment of Autonomous University of Madrid has been featured by:

- **Academic:** We have finally received 6 students in the Technical School of Engineering (3 from Yasar University and 3 from Vytautas Magnus University), and 4 students in the Faculty of Education (3 from Yasar University and 1 from Vytautas Magnus University). The final implementation of the academic issues can be consulted at:
 - The **OCW portal** developed by UAM team can be found in:
 - <http://ubicamp.ii.uam.es/stis/>
 - The **Social Network** used was Twitter through the official UAM accounts:
 - https://twitter.com/eps_uam
 - https://twitter.com/uam_madrid
 - The details of the **Virtual World technologies** can be found in:
 - <http://ubicamp.ii.uam.es/sociocultural/virtual-worlds>
 - All the **video-lectures** have been performed through Skype. 14 video-lectures have been performed during the course.
 - There were two courses of 6 **ECTS**: Introduction to Programming in C and Linux OS and Multimedia Educational Resources. The details can be found in:
 - <http://ubicamp.ii.uam.es/courses>
 - The **coordination office** was the International Relationships Office from the University:
 - http://www.uam.es/ss/Satellite/en/1242663011388/sinContenido/International_Relations.htm
- **Cultural Content: All Videos and Wikis** and technologies related to the Socio-Cultural content can be found in the following link:
 - <http://ubicamp.ii.uam.es/sociocultural>
- **Technological Content:** All the **technological features** are described in the Academic and Cultural Content.

- **Training:** The assessments for the different subjects and all the training manuals can be found in UAM Team-Moodle:

<http://aida.ii.uam.es/moodleUbicamp/>

- **Management:** The management has been performed by the local IR Office from the Escuela Politécnica Superior of the Universidad Autónoma de Madrid. All the information can be found here:

<http://www.uam.es/ss/Satellite/EscuelaPolitecnica/en/movilidad-y-practicas-2/Page/sinContenido/relaciones-internacionales-y-movilidad.htm>

3.4 Yaşar University

Framework	Academic	Cultural	Technological	Training	Management
Features					
Technological	NA	Videos web pages based (open access) http://ubicamp.yasar.edu.tr/socio-cultural-elements/	http://e.yasar.edu.tr/	Installation & user guides	Determined in collaboration with the Distance Learning Center at Yasar University and UbiCamp Consortium
Teaching & pedagogical criteria	http://ubicamp.yasar.edu.tr/	NA	http://e.yasar.edu.tr/	OERs	N/A
Cultural / linguistic issues	Social Networks (Facebook-Twitter) www.yasar.edu.tr http://ubicamp.yasar.edu.tr/	http://ubicamp.yasar.edu.tr/socio-cultural-elements/	Videos Facebook Integrated into academic tasks	http://ubicamp.yasar.edu.tr/socio-cultural-elements/	N/A
Evaluation methods	Academic Mid-term Exam Assignments	Integrated into the course syllabus	http://ubicamp.yasar.edu.tr/socio-cultural-elements/ http://e.yasar.edu.tr/	http://ubicamp.yasar.edu.tr/	N/A

Network virtual environments	Facebook Twitter	Facebook Twitter	Social networks Virtual environments.	N/A	N/A
Management	Credit recognition for students	EU Center (Erasmus Office)	N/A	N/A	N/A

The deployment of Yaşar University has been featured by:

- **Academic:** Yaşar University received 6 students for the EU Education Programmes and Project Management course (2 from Università Telematica Pegaso and 4 from Vytautas Magnus University)
 - OER portal was developed at
<http://ubicamp.yasar.edu.tr>
Courses are available at:
<http://ubicamp.yasar.edu.tr/learning-modules/eu-educational-programmes-and-project-management/>
<http://ubicamp.yasar.edu.tr/learning-modules/eu-turkey-relations/>
 - The **Social Network** used was Twitter and Facebook through the official Yaşar University EU Center accounts:
<https://twitter.com/yasarunieuc>
<https://www.facebook.com/yasareuc>
 - All the **video-lectures** have been performed through Skype. 8 video-lectures have been performed during the course. In addition, 14 weeks course content was prepared and published at the module pages.
<http://ubicamp.yasar.edu.tr/learning-modules/eu-educational-programmes-and-project-management/>
<http://ubicamp.yasar.edu.tr/learning-modules/eu-turkey-relations/>
 - The **coordination office** was the EU Center at Yaşar University:
<http://euc.yasar.edu.tr/>
- **Cultural Content:** All learning materials for Socio-Cultural content can be found in the following link:
<http://ubicamp.yasar.edu.tr/socio-cultural-elements/>

- **Technological Content:** All the **technological features** are described in the Academic and Cultural Content.
- **Management:** The management was coordinated by the EU Center at Yaşar University.
<http://euc.yasar.edu.tr/>
<http://ubicamp.yasar.edu.tr/how-to-enroll-courses/>

3.5 Vytautas Magnus University (VDU)

Framework	Academic	Cultural	Technological	Training	Management
Features					
Technological	www.studyonline.lt	Videos web pages based (open access) www.vdu.lt/en YouTube	www.teacamp.eu/moodle2 www.studyonline.lt http://moodle.vdu.lt	www.teacamp.eu/moodle2	www.studyonline.lt
Teaching & pedagogical criteria	http://open.vdu.lt	www.vdu.lt	www.studyonline.lt	www.teacamp.eu/moodle2	www.studyonline.lt
Cultural / linguistic issues	Social Networks (Facebook) www.vdu.lt	www.vdu.lt	Videos Facebook Integrated into academic tasks	http://moodle.vdu.lt	N/A
Evaluation methods	Academic Mid-term Exam Assignments	Integrated into assignment in Moodle	http://moodle.vdu.lt	www.teacamp.eu	N/A

Network virtual environments	Facebook	Facebook	Social networks Virtual environments.	N/A	N/A
Management	Credit recognition for students (through 6 ECTS recognition) and IR Office as coordination bridge	IRO (Int. Relations Office)	N/A	N/A	N/A

The deployment of Vytautas Magnus University has been featured by:

- **Academic: Incoming students** - There were 12 student (8 from Unipegaso Telematic university and 4 from University of Oviedo) interested in participating at 4 VMU courses for virtual mobility, however in the end only 4 students (from University of Oviedo) studied during the Autumn semester of 2014 and 2 students (1 from University of Oviedo and 1 from Unipegaso Telematic University) are still taking the virtual mobility course during the Spring semester of 2015.
- **Academic: Outgoing students** – There were 28 students of VDU who applied for virtual mobility courses and 19 of them signed learning agreements for studies at 8 virtual mobility courses at University of Oviedo, Yasar University, Autonomous University of Madrid, and Pegaso Telematic University. 17 of them have passed the courses and are processing with the course recognition at VDU.
- The final implementation of the academic issues can be consulted at:
 - OER portal was developed at
<http://openu.vdu.lt>
 - The **Social Network** used was from VMU and UbiCamp logins:
<https://www.facebook.com/vduisi?ref=stream>
<https://www.facebook.com/pages/Ubicamp-Virtual-Mobility-for-Universities/645020148883781>
 - Training on VM for students was implemented using training material at:
<http://www.teacamp.eu/moodle2/course/view.php?id=42>
 - All the **video-lectures** have been performed through Adobe Connect:
<https://ac.vdu.lt/vm>
 - There were 4 courses provided for virtual mobility - three courses of 6 ECTS: Open Educational Resources, Information technologies in Education, and Digital Graphics Programming; and one of 4 ECTS: Collaborative learning. The details can be found in:

<http://www.ubicamp.eu/courses>

- The **coordination office** was the International Relationships Office from the University:

<http://www.vdu.lt/en/contacts-2/vmu-international-office/>

- **Cultural Content: All Videos and resources** and technologies related to the Socio-Cultural content can be found in the following link:

<http://www.vdu.lt>

- **Technological Content:** All the **technological features** are described in the Academic and Cultural Content.

- **Management:** The management has been performed by IRO, faculties and Innovative studies Institute as indicated by internal regulations. The procedures are available here:

http://studyonline.lt/sites/default/files/virtualaus_mobilumo_organizavimo_tvarkos_a_prasas.pdf

3.6 University of KTU

Framework	Academic	Cultural	Technological	Training	Management
Features					
Technological	http://ktu.edu/emtc/en/	Videos web pages based (open access) http://vma.ktu.lt/?lang=en YouTube	http://ktu.edu/emtc/en/	http://ktu.edu/emtc/en/	http://ktu.edu/emtc/en/
Teaching & pedagogical criteria	http://vma.ktu.lt/?lang=en	www.ktu.lt	http://ktu.edu/emtc/en/	http://ktu.edu/emtc/en/	http://ktu.edu/emtc/en/
Cultural / linguistic issues	Social Networks (Facebook) www.ktu.lt	http://open.ktu.lt/course/view.php?id=10	Videos Facebook Integrated into academic tasks	http://vma.ktu.lt/?lang=en	N/A

Evaluation methods	Academic Mid-term Exam Assignments	Integrated into assignment in Moodle	http://vma.ktu.lt/?lang=en	http://ktu.edu/emtc/en/	N/A
Network virtual environments	Facebook	Facebook	Social networks Virtual environments	N/A	N/A
Management	Credit recognition for students (through 6 ECTS recognition) and IR Office as coordination bridge	IRO (Int. Relations Office)	N/A	N/A	N/A

The deployment of Kaunas University of Technology:

- **Academic: Incoming students** - There were 6 students (3 from Unipegaso Telematic university and 3 from University of Oviedo) interested in participating at 2 KTU courses for virtual mobility studied during the Autumn semester of 2014.
- **Academic: Outgoing students** – There were 5 students of KTU who applied for virtual mobility courses and signed learning agreements for studies at 1 virtual mobility course (International communication) at Pegaso Telematic University. All of them have passed the course and have already got the course recognition at Pegaso telematica University.
- The final implementation of the academic issues can be consulted at:
 - OER portal was developed at
 - <http://open.ktu.lt/>
 - The **Social Network** used was from UbiCamp login:
<https://www.facebook.com/pages/Ubicamp-Virtual-Mobility-for-Universities/645020148883781>
 - Training on VM for students was implemented using training material at:
<http://www.teacamp.eu/moodle2/course/view.php?id=42>
 - There were 2 courses of 6 ECTS provided for virtual mobility: Project management and Management. The details can be found in:
<http://www.ubicamp.eu/courses>

- The **coordination office** was the International Relationships Office from the University:

<http://ktu.edu/en/studies>

- **Cultural Content: All Videos and resources** and technologies related to the Socio-Cultural content can be found in the following link:
- <http://open.ktu.lt/course/view.php?id=10>
- **Technological Content:** All the **technological features** are described in the Academic and Cultural Content.
- **Management:** The management has been performed by IRO, faculties as indicated by internal regulations. The procedures are available here: <http://ktu.edu/emtc/en/>

3.7 Pegaso Telematic University

Framework	Academic	Cultural	Technological	Training	Management
Features					
Technological	http://www.unipegaso.it/website/	Videos web pages based (open access) YouTube			
Teaching & pedagogical criteria				www.teacamp.eu/moodle2	
Cultural / linguistic issues	Social Networks (Facebook)		Videos Facebook Integrated into academic tasks		N/A

Evaluation methods	Academic Mid-term Exam Assignments	Integrated into assignment in Moodle		www.teacamp.eu	N/A
Network virtual environments	Facebook	Facebook	Social networks Virtual environments.	N/A	N/A
Management	Credit recognition for students (through 6 ECTS recognition)	Erasmus Office	N/A	N/A	N/A

The deployment of Telematic University Pegaso has been featured by:

- **Academic: Incoming students** - There were 11 students (5 from KTU, 3 from UNIOVI, 1 from VMU and 2 from YASAR) who participated at UNIPEGASO VMU course for virtual mobility. In the 2 of them (1 each from KTU and YASAR) did not pass the exam.
- **Academic: Outgoing students** – There were 18 students of Unipegaso who applied for virtual mobility courses and 15 of them signed learning agreements for studies at 8 virtual mobility courses at University of Oviedo, Yasar University, Autonomous University of Madrid, and University of Southampton.
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- The final implementation of the academic issues can be consulted at:
 - OER portal was developed at <http://openu.vdu.lt>
 - The **Social Network** used was from VMU and UbiCamp logins: <https://www.facebook.com/vduisi?ref=stream>
<https://www.facebook.com/pages/Ubicamp-Virtual-Mobility-for-Universities/645020148883781>
 - Training on VM for students was implemented using training material at: <http://www.teacamp.eu/moodle2/course/view.php?id=42>
 - All the **video-lectures** have been performed through Adobe Connect: <https://ac.vdu.lt/vm>

- There were 4 courses provided for virtual mobility - three courses of 6 ECTS: Open Educational Resources, Information technologies in Education, and Digital Graphics Programming; and one of 4 ECTS: Collaborative learning. The details can be found in:

<http://www.ubicamp.eu/courses>

- The **coordination office** was the International Relationships Office from the University:

<http://www.vdu.lt/en/contacts-2/vmu-international-office/>

- **Cultural Content: All Videos and resources** and technologies related to the Socio-Cultural content can be found in the following link:

www.unipegaso.it

- **Technological Content:** All the **technological features** are described in the Academic and Cultural Content.

4 Conclusions and Final remarks

This document has shown how the UbiCamp framework designed (according to the initial specifications from [2]) have been finally deployed by those partners involved in this project, to carry out the Virtual Mobility between the Institutions involved in this pilot experience.

It provides a complete and detailed description of the final implementation and deployment of the VM framework performed for each particular partner. Moreover, this document shows a general description for the Web Portal of the project. This is the main UbiCamp Virtual Campus access point containing all the virtual campus available services, and providing access to all participant institutions. For this purpose, it has been structured in several sections, firstly one section showing the Web Portal, and one more for each framework that has been deployed in UbiCamp project.

Finally, the UbiCamp project emerged as a practical attempt to respond to the usual obstacles to carry out Virtual Mobility experiences in Higher Education institutions inside the European Union. After the implementation and deployment of the Virtual Framework for the pilot experience, it can be concluded that this decentralized VM model allows achieving a Virtual Mobility between the Institutions, and that could be used in the future to allow the integration of new institutions within the framework.

Bibliography

- [1] **Gema Bello, David Camacho, Antonio Gonzalez and Hector Menéndez.** *“State of the art on Virtual Mobility”*. Madrid : UAM Team, april 2013.
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