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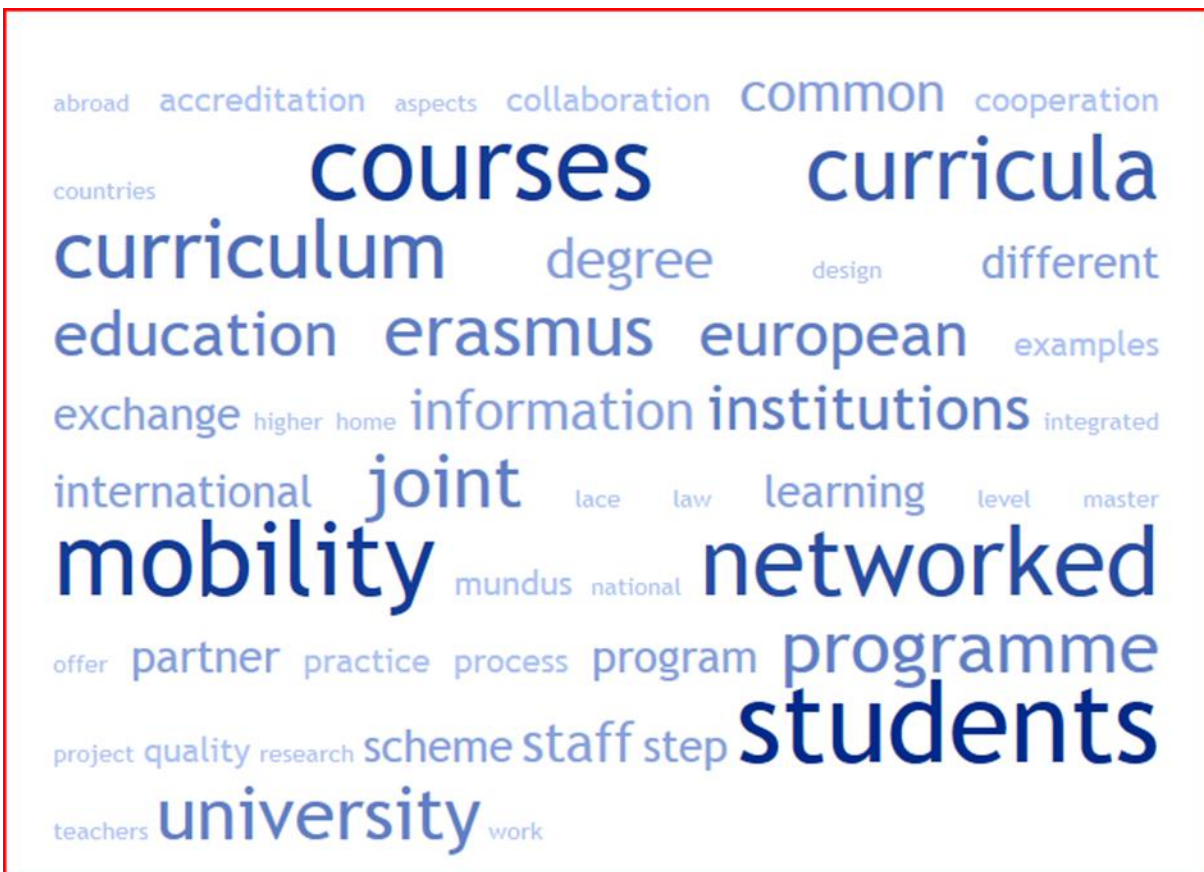
EADTU

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abroad accreditation aspects collaboration common cooperation countries courses curricula curriculum degree design different education erasmus european examples exchange higher home information institutions integrated international joint lace law learning level master mobility mundus national networked offer partner practice process program programme project quality research scheme staff step students teachers university work

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1.   Uninettuno (IT)

1.1   MedNet'U – Mediterranean Network of Universities

Authors: Prof. Maria Amata Garito, Prof. Bernardino Chiaia, Prof. Dario Assante and Raimondo Sepe

Website: http://www.consorzionettuno.it/mednetu/e/skins/mednetu/home/index_1024.asp

Level of the programme
- Undergraduate

Size of the programme
In terms of didactic offer, two bachelor degree programmes – "Information and Communication Technologies Engineering" and "Mechanical Engineering" – has been jointly designed by the partners and recognized in the Euro-Mediterranean area. Each programme, based on the Bologna Process, delivers 180 ECTS in 3 years. The project has also included the production of all the didactic modules in four languages (English, French, Italian and Arabic), available in the project web-platform and broadcasted on the satellite channel RAI Nettuno Sat 1. The two programmes have been also considered as models s also been where also a model for the design of new degree programmes recognized among the partnership.

It has been possible to create unified curricula, recognized among such a wide partnership including non-European countries, thanks to the effort of a didactic committee that has analysed in dept the curricula and the exam's contents in all the partner countries, extracting the common parts and finally working on a general agreement.

The Faculty of Engineering at International Telematic University UNINETTUNO has activated the ICT Engineering programme and has activated two other Engineering programmes according to the MedNet'U model, enrolling almost 2000 students in less than 6 years. This is considered a relevant long-term result of the MedNet'U project.

The Partnership
The project has been coordinated by NETTUNO – Network per l'Università Ovunque, and included 31 partners coming from 11 Euro-Mediterranean countries. The project partners are:

Algérie: Institut Supérieur de Gestion et de Planification (Bordj-El-Kiffan, Alger), Université Djillal Liabès de Sidi-bel-Abbès (Sidi-bel-Abbès)

Egypt: Cairo University (Cairo), Helwan University (Helwan, Cairo), Egyptian Association Incubator (Cairo)

France: EUTELSAT (Paris), Fondation Sophia Antipolis (Sophia Antipolis Cedex), Institut National Polytechnique de Grenoble (Grenoble)

Greece: Aegean University (Mytilene, Lesvos), University of Crete (Heraklion, Crete)

Italy: NETTUNO Network per l'Università Ovunque (Rome), Politecnico di Torino (Turin), Istituto per il Mediterraneo (Rome), Consorzio per la Formazione Internazionale (Rome)

Jordan: Jordan University of Science and Technology (Irbid), Yarmouk University (Irbid)

Lebanon: Management and Technology Consulting Group (Beirut)

Morocco: Ecole Nationale Supérieure d'Informatique et d'Analyse des Systèmes (Agdal, Rabat), Université Cadi Ayyad (Marrakech), Ministère de l'Emploi et de la Formation Professionnelle, Secrétarait d'Etat chargé de la Formation Professionnelle (Rabat), Universite Ibn Zohr (Agadir), Université Mohamed V - Souissi (Rabat), Université Hassan 1er (Settat)

Syria: University of Aleppo (Aleppo), Damascus University (Damascus), Syrian Virtual University (Damascus)

Tunisia: Ministère del'Education et de la Formation (CENAFFIF) (Tunis), Ministère des technologies de la communication et du Transport /SEII (Tunis), Institut National de Bureautique et de Micro-Informatique /INBMI (Tunis), Université de Tunis El Manar (Tunisi), Université Virtuelle Tunisienne (Tunisi)

Turkey: Ege University (Bornova, Izmir)

The project has provided each partner with a technological infrastructure based on the bi-directional satellite technologies, allowing the permanent remote interaction between the partners. In this way the technological network has become a network of people and minds who have learned and know how to connect and share their knowledge.
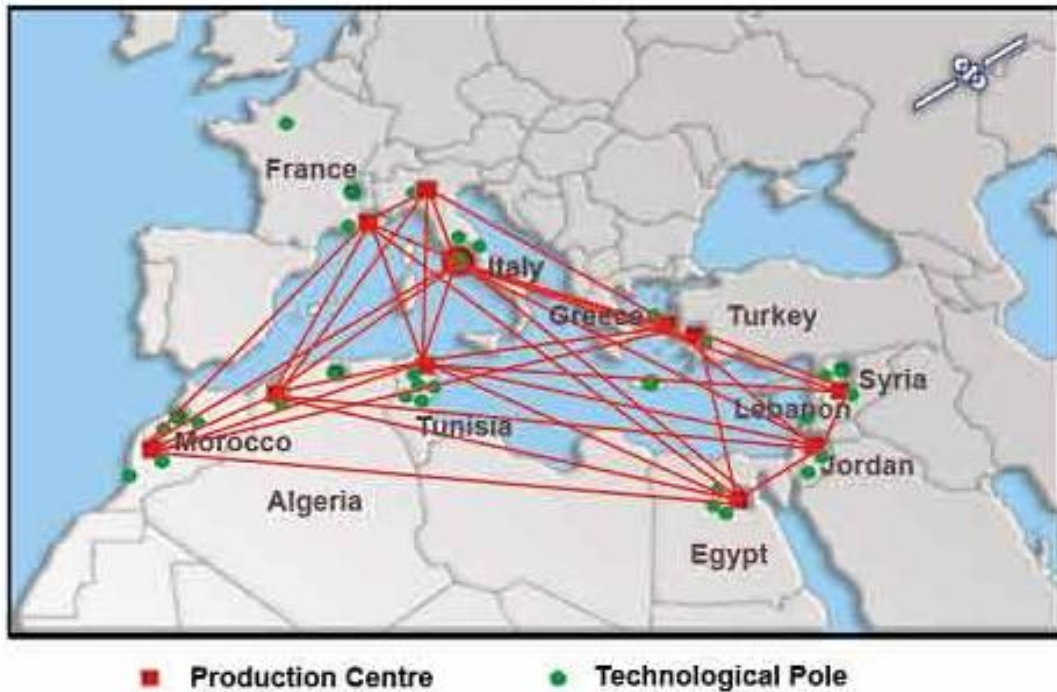
Figure 1. MedNet'U Technological Network

Teaching language

The use of multiple languages has been one of the success factors of the MedNet'U project and a very innovative aspect, considering the state of art of distance learning at the beginning of the project. Both the learning environment and the didactic contents where designed and implemented as multilingual from the beginning. So the first distance learning system where it was possible to teach and learn in four languages (English, French, Italian and Arabic) was realized.

This choice had several advantages:

- the possibility to teach and learn in different languages allows to reach a wide overcoming of linguistic barriers;

- a more direct involvement of the partners and of the professors is ensured;

- the knowledge sharing and the integration of the cultures is realized preserving the individual cultures of the different partner countries.

Degree/diploma awarded

The model coming out from MedNet'U project is flexible. The project has led to the design of the curricula recognized by all the partners, to the implementation of a customized learning platform and a specific technological infrastructure in all the partners' facilities, and to the shared production of digital contents. Thanks to the project results, all the partners have been able to activate the common curricula in different ways (single independent degrees, double degrees, multiples degrees, etc...). The initial choice to base the curricula design on the Bologna process and the use of ECTS ensures the mutual recognition of the diplomas inside the partnership.

Financial support
The MedNet'U project (2002-2006) has been funded by the European Commission inside the EUMEDIS framework.

1. Description of the collaborative programme

In the framework of the EUMEDIS Programme (Euro-Mediterranean Information Society), launched by the European Commission in 1998 to enhance the development of the Euro-Mediterranean Information Society, the Network per l'Università Ovunque NETTUNO has been selected to implement the Med Net'U Project, leading a partnership of 31 Euro-Mediterranean partners from 11 countries.

The Med Net'U Project had the aim to create the basis for a Distance Euro-Mediterranean University for academic and vocational training learning. Among its specific objectives, Med Net'U intended to launch a process of harmonization of the Euro-Mediterranean educational and training systems through the adoption of a common psycho-pedagogical model and to create a common technological platform to carry out distance teaching and learning processes. The psycho-pedagogic model has been realised by Prof. Maria Amata Garito and her research group, on the basis of more than 25 year of experience and research on distance learning and new technologies applied to didactic [1].

The project activities were divided in three branches, aiming to:

- the creation of a technological infrastructure with didactic and educational purposes (Sub-Project Technical Architecture);

- the adaptation, co-production and delivery of university study courses in the fields of Computer Science Engineering (Sub-Project University);

- the adaptation, production and delivery of short study courses meant for the acquisition of specific skills in professional fields related to economics, tourism, new technologies and cultural assets (Sub-Project Continuing Vocational Training).

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[1] The MedNet'U web-platform is implemented according to the psycho-pedagogic model realised by Prof. Maria Amata Garito and it is the outcome of her research work and experimentation of the results developed since 1993 with NETTUNO - Network per l'Università Ovunque. The psycho-pedagogic model is under copyright.

The most significant result of MedNet'U has been the creation of a bi-directional technological network, based on satellite technology for transmission and reception, which connects 11 Production Centers and 31 Technological Poles located in the Mediterranean partners. Through this network, exclusive in the Euro-Mediterranean area in distance learning, all partners can now produce, transmit and receive training contents using both satellite internet and television on RAI Nettuno SAT 1, that already broadcasts academic lessons for a degree course in engineering in Arabic, English, French and Italian.

The following important results have also been achieved in the MedNet'U project:

1. the development of a satellite internet based e-learning platform offered in four languages - the only one in the world in English, French, Italian and Arabic - and the availability, on the satellite television network RAI Nettuno SAT 1, of an area fully devoted to the broadcasting, in four languages, of the videolessons by professors of Universities of the Arab World and Europe;

2. the design of common curricula in Engineering according to the guidelines of the Bologna Process (three years for the first level degree and two more years for the second level degree);

3. the production in four languages (Arabic, English, French and Italian) of all the modules of the distance degrees in Information and Communication Engineering;

4. the training of professors, tutors and technical staff finalized the acquisition of the necessary skills for distance learning;

5. the availability of an existing network linking NETTUNO and its European partners with a group of academic excellence centers in the Mediterranean area. That network has been strengthened by the MedNet'U experience.

To capitalize on and extend the political-institutional consensus generated by the Med Net'U project and the results obtained, the partner Universities and the Higher Education Ministers of the Euro-Mediterranean countries have decided its development into a multilingual distance learning system. This happened during the Informal Meeting of Ministers of Higher Education, "Building a Euro-Mediterranean Area of Higher Education", held in Catania in November 2003 in the conference Catania 2 "Euro-Mediterranean Area of Higher Education and Research" on January 2005, where it was decided to set up the system of international Euro-Mediterranean University at distance, with the objective of creating the Euro-Mediterranean Area for Higher Education.

With the Declaration of Catania 3 "Euro-Mediterranean Space Education, Higher Education and Research", signed on January 29th 2006, the 14 Euro-Mediterranean Ministers of Higher Education agreed to "strengthen the system of distance learning, developed the results already obtained by the Project Med Net 'U, to encourage the widest possible access to education and training in a lifelong learning perspective ", using for this purpose the International Telematic University UNINETTUNO.

2.   Admission and selection for our collaborative programme

The MedNet'U project activities have been mainly focused on the creation of the technological infrastructure, the definition of the psycho-pedagogical model and the implementation of the web platform, the curricula design and the contents' realization.

Due to the need to respect the University autonomies, each partner has applied its admission rules.

3. The main incentives for our teaching staff to organize/participate in this collaborative programme

MedNet'U project has been a relevant cooperation initiative in the Euro-Mediterranean area. The importance of its results, proved by the Catania conferences, the high level of innovation and the wideness of the partnership have been factors that have induced several professors to collaborate with. The prestige of the programme has been, in several cases, the first incentive for participating in the programme.

The research activity and the high level of innovation was another attracting factor for several professors, interested to experiment and develop new didactic methodologies and the latest applications of the new technologies.

The wide collaboration in the Mediterranean area has allowed a relevant improvement of the didactic quality, involving the best professors of the partners' Universities. The wish to cooperate at international level to enhance the courses' quality and the didactic experiences have been an attractive aspect for several professors.

Last but not least, the social value of the project has been an incentive for several professors. One of the project aims was the democratization of knowledge and the improvement of the intercultural dialogue. Several professors, believing in these values, have been incentivized to take part in the programme.

4. Online support of the collaborative programme and related mobility

The Med Net'U Internet-based Portal is realised in five languages: Arabic, French, English, Italian and Spanish and its learning environments allow to put into practice the psycho-pedagogical model and therefore to concretise the shift from:

- From teacher's central role to the student's central role;
- From knowledge transfer to knowledge creation;
- From integration between practice and theory;
- From a passive and competitive learning to active and collaborative learning.

In the proposed psycho-pedagogical model it is indeed the student to be at the centre of the educational process, guided by the new telematic teacher/tutor profile having task of providing the tools for facilitating the learning and networked communication processes in synchronic and diachronic mode. In Med Net'U didactic model students actively participate in creating their own learning environment and become active constructors of knowledge and protagonists of the achieved knowledge

concrete application. In Med Net'U didactic platform, the student can experience two interaction models:

- with the telematic teacher/tutor
- with the intelligent system.

The Med Net'U Internet-based multimedia learning environment is characterised by the web page devoted to the video professor, considered as the core of the didactic activities, structured in learning environments, guiding the student along the learning path. The video professor's web page is structured upon various learning environments: videothèque, intelligent library, virtual laboratories, practical on-line exercises, on-line tutoring, didactic cyber-space (forum and chat).

Videothèque: In this environment the digitised video-lessons are posted. The digitised video-lessons main features are represented by contents modularity, indexing of the treated themes, bookmarks and graphical icons. Each videolesson is divided in subjects in order to allow for a diversified use: actually, it is possible either to watch the entire videolesson or to select a subject that one wishes to study more in depth and by an internal pointing system the video will automatically display the starting-point of the selected subject. The Slides that the professor presented during the videolesson can be used as an aid to study: the student can take notes during the videolesson, create his own maps to link the different subjects, write down a personal book.

Virtual library: from this environment it is possible to consult the intelligent library – a software based on a system of neural maps that allows for a guided and targeted research, according to customisable criteria, of the texts that are most suited to enhance the knowledge of the subjects treated by the videolesson of the chosen course, and a list of sites, bibliographical references, text and more in-depth studies are proposed by the video professor.

Virtual laboratory (learning by doing): the online exercises will be made directly online in order to allow the student to check his/her own level of understanding of the subject treated in the videolesson and allow the tutor to evaluate the student's actual progress. Exercises produced by the video professors of the module and exercises designed by the tutors of the Universities can be organised by videolesson or by subject. The student will be able to practice the theoretical principles he learnt during the videolessons starting up an auto-evaluation process of his/her own training process. The site allows to download the exercise and, after having done it, to send it to the tutor of the subject together with the self-assessment of the student that will be compared with the actual mark given by the tutor in the Statistics area.

Online tutoring: An online tutoring system organised in classes with an Agenda advanced system capable of acknowledging each single student and therefore to customise its functionalities and select the most interesting meetings will enhance interactivity among the professor / telematic tutor and the users-students. A advanced profiling system, by which the user is univocally acknowledged, will allow for continuously monitoring the learning process of each single user/student leading to a veritable path of learning by doing. The main interaction tool are:

- Chat: is implemented in the web-platform as a synchronous tutoring online instrument, to be adopted by tutors and students to discuss about didactic aspects of the courses. It's main role is to keep in contact tutors and students and to discuss deep questions that may arise during the course delivery.

- Forum: the forum system is implemented to provide the web-platform of an asynchronous tutoring system. Tutors can organize it into thematic areas, where students and tutors can post topics and discuss about courses' questions. The tool is important since it works in an asynchronous way and so doesn't create constraints of time to students and tutors such as the chat. It is also a permanent track of the didactic activity that may be useful for the next students.

- Agenda: an interactive agenda is implemented in the systems to allow different tutors to fix appointments and schedule activities, that are automatically grouped and shown in the students' agenda. The students can also use the agenda to request meetings and activities from the tutors.

Figure 2. MedNet'U web-platform – Arabic version

5. Added value of the programme

Added value of the partner collaboration in this programme *for your students*.
The students attending the MedNet'U courses have the possibility to attend high quality lessons, since the selected video professors have been selected as the best in their fields, in the partnership and in

Euro Mediterranean area. In addition, attending lessons taught from professors from different countries, can live an important intercultural experience.

The use of distance learning is a relevant help to overcome logistic problems and can offer new learning opportunities. In addition, the possibility to easily realize specific agreements and the adoption of the curricula inside the partnership allow to recognize the diplomas at international level.

Added value of the partner collaboration of this collaborative programme *for your institution*
The partnership offers an added value, since it brings into the program several internationally recognized competences and multicultural experiences. Then, the presence of professors coming from different countries allows to offer a program that is more easily accepted by students coming from different cultures. Finally it allows to attract a wider audience.

In addition, the project allows developing important researches in the area of distance learning, creating new didactic models experimenting new technologies and sharing didactic experiences.

6.   Sharing within the networked curriculum
One of the project outcomes was the realization of a web-platform for distance learning, based on Internet and satellite Internet, to be adopted as a learning environment for the programmes. The psycho-pedagogical model and the web-platform were designed and implemented in the project.

The MedNet'U web-platform allows to share all the courses' didactic materials, consisting digitalized videolessons hyperlinked to slides, books, articles, exercises, selected bibliographies and sitographies. Students and professors are able to browse through all these materials for each course, in a structured environment supporting the learning and teaching process.

An advanced search engine has been implemented to quickly browse among the contents and find heterogeneous materials in different languages. This is the basis for the project virtual library.

1.2   Double degree programme in Information and Communication Technologies Engineering

Authors: Prof. Maria Amata Garito, Prof. Bernardino Chiaia, Prof. Dario Assante and Raimondo Sepe

Website:

http://www.uninettunouniversity.net/e/main.asp?id=0203COOUSP0000000100000000300000000&degree=164&hideprof=1&mode=offdid&1=1&idindirizzo=12

Level of the programme
- Undergraduate

Size of the programme
The Double degree programme in ICT Engineering is an undergraduate academic programme, designed according the Bologna Process. It delivers 180 ECTS in 3 years. It includes about 20 exams studied at distance, some face-to-face laboratory activities and a training on job.
Per year, about 30-40 young Egyptian students get enrolled into this programme.

The Partnership
The programme is organized by International Telematic University Uninettuno (Italy) and Helwan University (Egypt).
Both Universities have coordinating roles. All the decisions are shared, the courses' contents are jointly decided and the exams are performed by a joint committee including a professor from both Universities.
At the end of the programme, before the graduation, a training on the job is organized for the students. The training is organized in partner companies operating in Italy and Egypt in the area of ICT.

Teaching language
The didactic contents and the learning environment is in English, Italian, French and Arabic. The programme includes an English language course (level B2) and an Italian language course (level A1). English is the official language for the exams and the graduation report.
The students mainly prefer to adopt the Arabic learning environment and to study the English didactic materials.

Degree/diploma awarded
The programme is a double degree programme, each partner University finally delivers independently a diploma to the graduate students.

Financial support
The programme was born thanks to the success and the results of MED NET'U project (http://www.consorzionettuno.it/mednetu/), funded by the European Commission inside the EUMEDIS

framework and involving 31 partners in the Euro-Mediterranean area. Nettuno Consortium (that originated Uninettuno University in 2005) and Hewlan University where both involved in the MED NET'U project. During the project the actual web-platform was partially developed, the curriculum was designed, the contents of several courses were produced and the Technological Pole at Hewlan University was realized.

After the conclusion of MED NET'U project, UTIU and Helwan University continued their cooperation and started this double degree programme based on the students' fees, without any other financial support.

1.   Description of the collaborative programme

UTIU was born from the success of the European project MedNet'U - Mediterranean Network of Universities (2002-2006), funded by the European Commission in the framework of the EUMEDIS Programme and coordinated by NETTUNO, which saw the participating of 31 universities and vocational training centres of 11 Mediterranean countries (Algeria, Egypt, France, Greece, Italy, Jordan, Lebanon, Morocco, Syria, Tunisia and Turkey).

Following the success of the MedNet'U Project, a formal and permanent Italo-Egyptian cooperation has been established between the International Telematic University UNINETTUNO (Rome, Italy) and the Helwan University (Il Cairo, Egypt), recognized by the Italian and Egyptian Ministries of Higher Education.

The cooperation aimed to realize an undergraduate double degree programme in Information and Communication Technologies Engineering, delivered in e-learning modality. The curriculum was designed according to the Bologna Process, delivering 180 ECTS in 3 years. The double degree consist in a 3-year Bachelor Degree delivered by UTIU and recognized in Italy and in Europe and in a 5-year degree delivered by the Helwan University and recognized in Egypt. The different length of the programmes is due to the different academic regulations in the two countries; in Egypt it is not possible to activate a 3-year cycle degree.

To overcome this problem a relevant work has been conducted on the contents of the courses of a typical Italian and Egyptian curriculum. Thanks to the effort of an international didactic committee of professors from the two academic institutions it was possible to mutually recognize several exams. The committee has first found an agreement on the general structure of the curriculum and then analyzed in depth the contents of each course. The final result has been a common curriculum, designed so that the Italian curriculum, based on the Bologna process model, is strictly included in a wider curriculum based on the Egyptian model. In this way all the exams included in the Italian curriculum are also in the Egyptian one. The exams in the Italian curriculum are recognized by the two institutions and the number is enough to get the Italian degree. To get also the Egyptian degree, the students have to pass few additional exams that are not mutually recognized and that are typical of an Egyptian curriculum.

This special curriculum, approved by the Italian and Egyptian Ministries of Higher Education, represents the first example of an European curriculum delivered at distance and recognized in Egypt.

The main targets of this program are young Egyptian students that are not able to study abroad, but at the same time are interested to attend an highly qualifying program and to get an internationally recognized diploma. This helps them to easily access the Egyptian job market and to have the possibility

to access the European job market too. The UTIU – Helwan University cooperation, also thanks to the e-learning based programme, satisfies this request.

The curriculum has been designed to educate an Engineer with competences in the various aspects of Computer Science. The aim was to create a professional figure, able to satisfy the needs of companies and agencies (public administration, finance, industry, commerce etc.) that provides services using information process's systems, that uses information products in production processes or that realizes products that include information components. The degree course aims to provide the following professional skills:

- capability to define the specifications of a project and coordinate the realization of the applications that make use of consolidated methodologies and tools;

- capability to design and develop dedicated applications, also in cooperation with other professional profiles;

- capability to manage and maintain information application, identifying, scaling or managing architectures and plants using consolidated technologies;

- capacity to interact during the design, development and maintenance of decision-making support systems, also in cooperation with other professional profiles;

- capability to implement technological innovations, in the sector of Information Engineering, to train staff, participate in R&D groups in the information industry and contribute to basic training in the information sector.

The web-based e-learning environment, following the psycho-pedagogical model of UTIU[2], has been basically created during the MedNet'U project and adopted and improved for the double degree in ICT Engineering. The platform is developed in Asp.NET, whereas the Learning Management System (LMS) manages the learning materials by a meta-dating model on the international standards (SCORM 1.2). The didactic materials are associated to the academic courses; each course contains video-lessons produced by qualified professors coming from European and Arabic Universities. Each videolesson is digitalized and indexed, and all the video courses are complemented by several additional multimedia materials (slides, exercises, e-books, bibliography, list of websites, conceptual map, etc…). By means of the e-learning technology, the students can attend high quality courses at home using the UTIU website, or at the facilities of the UTIU Technological Pole at the Helwan University. The courses are also broadcasted on satellite TV by RAI NETTUNO SAT1, which covers all Europe and the north-African area. So the students can attend high quality lessons with internationally recognized contents, without leaving their own country. All the didactic materials are available in the UTIU didactic web-platform.

Whereas most of the didactic activities are based on distance learning and remote interaction between students and professors, the programme concludes with physical mobility activities. Each year a selected

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[2] The Uninettuno web-platform is implemented according to the psycho-pedagogic model realised by Prof. Maria Amata Garito and it is the outcome of her research work and experimentation of the results developed since 1993 with NETTUNO - Network per l'Università Ovunque. The psycho-pedagogic model is under copyright.

group of students is invited to come to Italy to have a training on the job, that allows the students to put into practice all the concept they have learnt in their studies and to have a first real job experience, facing real problems and interacting with other persons in a non-academic contest. This opportunity has been valued by the students as extremely high qualifying, as it is really rare for a young Egyptian to have the possibility to include a real experience on the job in a European company, in its curriculum. For this reason UTIU has received a high request of students interested to come to Italy to attend the stage, nevertheless the travel costs. At least this has been also a positive way to encourage the students to get better grades in the exams.

Figure 1. H.E. Ambassador of the Arab Republic of Egypt in Italy, Mr. Ashraf Rashed, and the Rector of UTIU, Prof. Maria Amata Garito, celebrate the Egyptian students concluding the training in Italy.

2.   Admission and selection for our collaborative programme

Helwan University is one of the highest ranked academic institutions in Egypt and has high admission standards. It is responsible for selecting the students interested to apply to the program, based on their secondary school diploma grade and on their motivation. UTIU doesn't require any additional restrictive constrain.

An intrinsic constrain for the admission of the students is the language proficiency. Students who are not adequately skilled in English are usually discouraged to apply to the programme, although an upper-intermediate English course is included at the first year of the programme.

3.   The main incentives for our teaching staff to organize/participate in this collaborative programme

The realized programme is a very important cooperation activity in the Mediterranean area. In particular, it is the first time Egyptian students can study in their home country and get a degree that is recognized at a European level, too. Several professors are proud to be involved in this project and to grow their reputation at international level too.

The way of teaching in Italy and Egypt is really different for several subjects. This programme is also an opportunity for many professors to interact with their colleagues, to discuss about different ways of teaching and to enhance their pedagogical approach to reach people with different cultures and backgrounds.

4.   Online support of the collaborative programme and related mobility

The UTIU learning environment offers different collaborative didactic instruments to support the interaction between Italian and Egyptian professors and students.

When the student logs-in the learning platform, he directly accesses its own home page, where he can find all the useful information related to the courses he is attending or he will attend. He can decide to register for new courses or to access directly the courses he's already attending, checking the progresses of his learning process. He can interact with the tutor sending or receiving messages, and in the agenda he can see all the scheduled activities (chat, exams, videoconferences, etc…) for the courses he is registered to. In a proper section the student is also informed about the time of the videolessons broadcasted on the satellite TV.

As the students registered to specific courses are grouped in virtual classes of 30 learners, the tutor can prepare specific activities for each single class, submit them and verify the results. This gives the tutor the possibility to "animate" the activities and to keep a live interaction, even if at distance, with the students. A Forum and email support the asynchronous interaction.

The synchronous activities are realized using a chat module and/or a videoconference module integrated in the platform. This last activity, particularly appreciated by the students, allows the professor to make a live lesson or to show exercises, being streamed live on web and allowing a direct interaction with the students. The videoconferences are also recorded and can be attended by the students asynchronously.
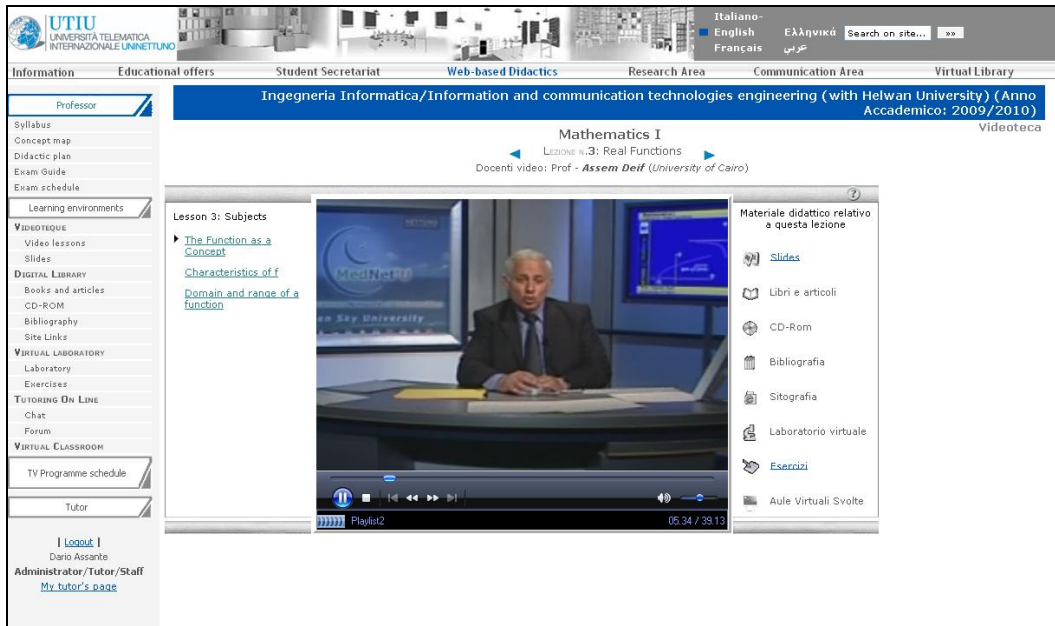
Figure 2. The UTIU web-platform.

The UTIU knowledge island on Second Life represents another collaborative learning environment. Students and professors can meet, interact and organize learning activities in several rooms and spaces of this virtual environment.

Recently, the official Facebook web page of the programme has been created, since the social network is widely used among students in Egypt. The page is used to discuss, share opinions and impressions about the programme.

5.   Added value of the programme

Added value of the partner collaboration in this programme *for your students*.
The main added value for the students enrolled in the double degree program in ICT Engineering is the possibility to have an internationally recognized title. In particular, this is a relevant added value for the Egyptian students. They can obtain at the same time an Egyptian degree from Helwan University and an Italian degree from UTIU, recognized at European level. This is better qualifying for the Egyptian labor market and allow them to access the European labor market too. In addition, because the Italian degree is designed according to the Bologna Process, it allows an easier access to graduate programs in other European countries.

The possibility to attend a training on the job in foreign ICT companies is also considered an important added value, since it is highly considered in the hiring processes.

Finally, it is also a relevant intercultural experience, since students from one country have to interact with professors coming from another country and other cultural and linguistic backgrounds.

Added value of the partner collaboration of this collaborative programme for your institution
Internationalization is considered an important parameter to assess the quality of the Universities. This programme is, in general, one of the most important international activities of UTIU and in Italy. It realizes a concrete cooperation with a non-EU University and it is mainly focused on foreign students. This international cooperation is also a starting point to create new interactions, activate new collaborations and to jointly develop international projects.

The importance of the programme is also connected to the up-to-date technologies adopted for the contents' production and courses' delivery, being also an opportunity to continuously develop research and innovation in the field of didactic.

6.   Sharing within the networked curriculum

The UTIU leaning environment is the virtual space where contents, competences and resources are shared.

All the courses are provided of video-lessons produced by qualified professors coming from European and Arabic Universities. Each video-lesson is digitalized and indexed, and all the video courses are complemented by several additional multimedia materials (slides, exercises, e-books, bibliography, list of websites, conceptual map, etc…).

Students can browse to the UTIU virtual library, that allows the access to a wide range of contents produced by researchers and professors and that is available online. Then, the UTIU communication area is an online space devoted to the publishing of press releases, photographic materials, information and news about the University activity, with specific information about the programme.

An open archive has been created for the graduation projects. Students can browse it accessing to the concluded graduation projects and presentations and to the best videos of the graduation discussions. This is a useful instrument for graduating students and a common space to interact and share experiences.

2. Universidad Nacional de Educación a Distancia (ES)

2.1 Erasmus Mundus EUROMIME

Authors: María Luz Cacheiro, Patricia Mata and Beatriz Malik

website: http://www.euromime.org

Level of the programme

- Master

Size of the programme

The average of the new students who register every year is around 15 after a thorough selection process that brings together every year more than one hundred applicants. Some of the scholarships are for non-European students and students from Western Balkans, Turkey, Tunisia, Egypt, Armenia, Azerbaijan, Belarus, Georgia, Moldova & Ukraine. Another group of scholarships are for European students and from Lichtenstein, Iceland & Norway.

The programme structure is based on 120 ECTS with a "Preparatory Online Training Semester" in language, computer skills and research (Annex I). The Student mobility paths are organized as follows: 1st Semester – Université de Poitiers – France; 2nd Semester, Universidade Técnica de Lisboa – Portugal; 3rd Semester, Universidad Nacional de Educación a Distancia, Madrid – España and 4rd Semester in the University in which the Tutor of the Master Thesis is located.

The Partnership

The Euromime consortium is composed of 7 universities, 3 in south-west Europe (Université de Poitiers – France; Universidad Nacional de Educación a Distancia, Madrid – España; Universidade Técnica de Lisboa – Portugal)and 4 in Latin America (Universidad Nacional Autónoma de México – México; Pontificia Universidad Católica del Perú, Lima; Universidade de Brasilia – Brasil; and Universidade de Los Lagos, Osorno – Chile).

Teaching language

The master is a trilingual two year programme taught in the national language of each university. The programme combines a study stay in three European universities a study period in Latin America for the European students and in Europe for the non-European students and ends in a Multiple Diploma Degree.

Degree/diploma awarded
Multiple Diploma Degree

Financial support

Organizational aspects for students and scholar application as well as for the logistics arrival in Europe and financial aspects are share by all the partners. Specific tools have been developed by the university which coordinates the consortium (Université de Poitiers, France) for the key phases of the programme.

1.   Description of the collaborative programma

The Euromime Master (http://www.euromime.org) is a European Master in Media Engineering for Education in the Erasmus Mundus Action 1A of Masters. It trains project managers in the field of design, development and implementation of educational and training programs resorting to computer mediated environments. It also trains researchers on the use of these technologies.

The online preparatory period is composed by three modules including:

- Languages training and a placement test at the end of the training period.

- Technology activities are selected in accordance with the results obtained in the C2i followed by a final placement test.

- Research articles analysis in French, Spanish, Portuguese or English send by the teaching staff of the consortium which are presented and discussed for the opening of the programme.

The curriculum is based on common Learning Units which have been designed taking into account different general and specific competencies: languages, Research Initiation, Educational Technology, Tools, and Educational Strategies through a Learning model with internships during the two year programme period and research webinars.

During the semester in each university complementary academic and cultural activities are scheduled.

The European students go to an American University of the Consortium during 2 months for an internship period; and the non-European students make the industrial internship during 2 months in one

of each European Universities or other institutions. The participation of external institutions is managed by an internship contrat signed by the responsible of both institutions.

2.   Admission and selection for our collaborative programme

Admission and selection are jointly organized by the partners and is based on the following criteria:

- Bachelor's degree (Licence) or an equivalent in compliance with the legislation and the national practices.

- Interest in educational technologies and a professional project related to these technologies,

- Basic knowledge of information technologies attested by an ICT certificate (C2I or equivalent).

- Academic or professional excellence.

- Professional project or thesis project in the field.

- Knowledge (C2 level) of one of the three languages in use in the Consortium (French, Spanish and Portuguese).

- Knowledge (B2 level minimum) of a second and a third language of the Consortium.

- Knowledge of English (B2 level).

- Good command of ICT (ECDL Start or C2i levels).

- References from universities and/or professionals.

3.   The main incentives for our teaching staff to organize/participate in this collaborative programme

Incoming and outgoing staff mobility is assured by Action 1 Programme from 2 to 4 weeks during each academic year. The European staff goes to the Latin America universities of the consortium to share projects and experiences; and the Latin America Staff comes to the European Consortium Universities to organize training workshops for students and participate in the University activities.

Three international Congresses are organized in the European Universities of the Consortium in Poitiers (France) [http://www.c2e-poitiers.com/], Lisbon (Portugal) [http://www.fmh.utl.pt/semimelisboa/] and Madrid (Spain) [www.uned.es/infoedu], in which students present their research progress as Posters and Oral Communications. During these three meetings, the partners develop the key coordination academic and logistics activities under the programme.

The Euromime Network is composed by other institutions which have been taking part of the different activities of the consortium. This network is focused on training activities and research actions linked to this Master to reinforce the internationalization of the achievements for dissemination, collaboration and durability purposes. Students and Staff benefit from this network of institutions during and after the EUROMIME Master Programme (Annex II).

4.   Online support of the collaborative programme and related mobility

Each university has its own website structure in which students have to be registered for administrative and academic purposes. Other online web 2.0 tools are used among all partners' institutions of the consortium for different administrative, academic and cultural activities.

Some of the main reasons for organizing this programme are:

- Recruiting international students

- An international experience for your home students

- Raising the quality by complementary content

- Raising the quality by complementary pedagogical approaches

- Internationalization of the training programmes

5.   Added value

Added value of the partner collaboration in this programme *for your students*

The added value of the partner collaboration in this programme *for the students* is assured by the following aspects:

- Intercultural experience, learning in another environment/language learning

- Personal development by living independently in a different environment

- International cooperation with other students (in projects, seminars, courses, thesis work; internships companies)

- Learning and innovation (in R&D environments at universities, R&D institutes, companies, field work,…)

- Student mobility

Added value of the partner collaboration of this collaborative programme *for your institutions*

Added value of the partner collaboration of this collaborative programme *for the institutions* of the consortium and the partners of the EUROMIME Network is assured by the following aspects:

- The partnership offers an additional multidisciplinary dimension to the programme

- The programme has become more attractive, hence it has more impact and more students can be recruited

- The partnership reflects research and innovation links with the partners

- Multilingual (French, Portuguese, Spanish and English) activities.

- Staff mobility

6.   Sharing within the networked curriculum

The networked curriculum is assured through different activities:

- Common Learning Units among the three European universities.

- Research Webinars.

- European and non-European mobility of staff to organized lectures, seminars, workshops, summer schools, etc.

- Training paths: preparatory semester, study programme, practices, and research memoire.

- Learning environments, learning communities

- Access to libraries of partner institutions

- Access to recent research reports, thesis work

- Access to research institutes, labs, equipment,

- Networking: research institutes, R&D institutes, societies, associations, business partners, etc.), on demand

Quality Assurance of the programme is assured by external institutions and Erasmus Mundus Representatives.

Annex I. EUROMIME Programme Structure

MARS > SEPTEMBRE

PREPARATION 0

3e SEMAINE DE SEPTEMBRE

U2E *

ME ME **POITIERS** 1

3e WEEK END DE JANVIER

FEVRIER > AVRIL

SEMIME *

MAI > JUIN

ME ME **LISBOA** 2

4e SEMAINE DE JUIN

Stage en europe

1e SEMAINE DE JUILLET

Cours UNED 3

Congres UNED *

**Stage en europe
Amerique Latine**

3e SEMAINE DE SEPTEMBRE

U2E *

POITIERS 4

ME ME **MADRID** 5

3e WEEK END DE JANVIER

SEMIME *

FEVRIER > JUIN

LISBOA POITIERS MADRID 6

1e SEMAINE DE JUILLET

Congres UNED *

7

Lisboa Poitiers Madrid

ME = Mobilité enseignant

* = rassemblement (U2e = Université Européenne d'Eté ; congrès UNED = congrès d'informatique éducative ; SEMIME = Séminaire de la FMH)

Annex II. EUROMIME Consortium and Network

2.2 Euro-Latin American Master's Degree in Intercultural Education (INTER Master's Degree)

Authors: María Luz Cacheiro, Patricia Mata and Beatriz Malik

Website: http://www.uned.es/grupointer

Level of the programme
- Master's Degree

Size of the programme

The INTER degree is aimed at any person who is interested in inter-cultural education, with the necessary qualifications to access a Master's degree. In particular, students of pedagogy, anthropology and social sciences in general, business administration, law, medicine etc. All can gain competency from an inter-cultural perspective with a view to developing interdisciplinary programmes in a social and educational context. The course offers two study options — academic **(Intercultural Studies)** and professional **(Intercultural Education in Practice)**. The study plan is structured around three content modules with 28 subjects, one *Practicum* (internship) module for option 2 (professional) and a Thesis Module, for both options but with more weight in option 1. The total ECTS (European Credit Transfer System) value is 90 credits. The maximum number of students has been established to 70. The first call, corresponding to the current academic year, 2011-2012, received more than 60 applicants, and 32 of them were selected.

The design of the Euro-Latin-American Master's Degree in Intercultural Education (INTER) is a result of collaboration between Latin American and European institutions from ALFA-INTER Project (European Commission, 2007-2010). Currently, the collaboration relates only to the participation in the programme of academics from the different institutions involved in the ALFA project, but we are in the process of signing agreements with some of these institutions (Universidad Veracruzana and CSIC have already signed it) in order to change the Master into a joint Degree.

The Partnership

The coordinating university is UNED (Spanish University of Distance Education), and this institution is the first one offering the Master's Degree. The university partners are: Universidad Complutense de Madrid, Universidad de Sevilla (Spain); Universidad Veracruzana Intercultural (Mexico), Universidad de Tarapacá (Chile); Universidad Técnica Particular de Loja (Ecuador); Limerick University (Republic of Ireland) and Nottingham Trent University(United Kingdom). We also count on the participation of a research institute: Consejo Superior de Investigaciones Científicas (CSIC).

Teaching language

The teaching languages are Spanish and English, responding to the Euro-Latin American nature of the Master's Degree and taking into account the international vocation of the Degree.

Degree/diploma awarded

The INTER Master's Degree is currently being offered by UNED as a single Degree, but we are in the process of changing it into a joint Degree involving some other institutions, such as Universidad Veracruzana (UV-Mexico) and CSIC.

Financial support

- Erasmus Mundus, Action 2 (Strand 1): we are currently submitting a proposal to fund mobility flows between European and Latin American institutions (not only those in the original partnership but others with Master's or Undergraduate degrees in the field of Intercultural Education), in order to strengthen collaboration among these institutions, and to enable students, academics and administrative staff to spend some time in a different institution than their own university.

- Others:

*ALFA-INTER: *Postgraduate Euro-Latinamerican Programme in Intercultural Education,* funded by the European Commission within the ALFA Programme, with reference II-0534-A (2007-2010). The objective of this programme was to design the joint Master's degree and to set the basis for future implementation. It is currently being implemented, although as mentioned above, it is still not a joint degree as the Institutions are offering it, only academics from all these institutions are involved.

* Our own universities: The ALFA project was co-financed by the institutions participating in the project.

1.   **Description of the collaborative programme**

The INTER degree is aimed at any qualified person that is interested in inter-cultural education. In particular, students of pedagogy, anthropology and social sciences in general, business administration, law, medicine etc. All can gain competency from an inter-cultural perspective with a view to developing interdisciplinary actions and projects in a social and educational context. The aim of this programme, the product of the experiences and views of all its contributors, is to respond to a broad vision of reality, so that it will easily adapt to the differing needs of its participants. The ultimate purpose of the degree is that students become familiar with the objectives and contributions of inter-cultural education and use this knowledge to develop an understanding of diversity and to adopt an inter-cultural focus in their research and education in line with the academic/professional orientation of the programme. It is also hoped that they might learn to apply this knowledge in the analysis and resolution of complex problems in multicultural contexts.

The general objectives of the "Master's Degree in Euro-LatinAmerican Inter-cultural Education" are to:

- Appreciate the opportunities that diversity presents to society, and learn to confront its challenges.

- Contribute to analysing the structure of social inequality, legitimised by social differences.

- Reflect upon inter-cultural education as an answer to conflict.

- Develop knowledge via an international network of exchange of inter-cultural experiences.

- Develop attitudes, abilities and inter-cultural communication skills, including the sharing of knowledge and reasoning.

- Develop autonomous and cooperative learning skills.

- Use new technologies as a tool for promoting exchange.

- Analyse, design and develop socio-educational projects from an inter-cultural perspective.

As such, these are competences to develop according to the success of named objectives:

- Find appropriate responses to the challenges of diverse and fluid contexts.

- Design, manage and evaluate policies and projects from an inter-cultural perspective.

- Plan and implement strategies responding to socio-cultural complexity and diversity.

- Promote change toward equality and social participation.

- Through research, nurture innovative knowledge applicable to the resolving of complex problems from an inter-cultural perspective.

- Identify those mechanisms that promote social inequality.

The course offers two study options — academic and professional. 1. **Intercultural Studies** and 2. **Intercultural Education in Practice.** The first one aimes at those interested in orienting their studies toward a doctorate and research, and the second one with a more practical bent for those with a professional specialization in mind.

The study plan is based around three content modules with 28 subjects, one practical module (Practicum) for option 2 (professional) and a Thesis Module, for both options but with more weight in option one. The total ECTS (European Credit Transfer System) value is 90 credits.

The academic route followed by students, and of course the credits awarded per module, will depend on the speciality or option chosen. Students of both options will study for 45 compulsory credits and 45 optional. The optional credits are chosen based on a specific number of subjects according to each course option. The compulsory parts are as follows: 25 compulsory subjects per module, depending on the option chosen and the remaining 20 credits are earned by the thesis in the first option or the thesis and practical work in the second. So, all students will compulsorily produce a thesis (20 credits for option 1 and 10 for option 2) whilst students of option 2 will undertake work-experience.

The INTER degree "Euro-LatinAmerican Master's Degree in Intercultural Education" is delivered following UNED's own methodology. There are on-line facilities for participation, printed and multimedia materials. The virtual campus is an on-line facility where much of the course will be developed. Participants in the virtual campus can share tasks and experiences with other students and teaching staff located in different countries and continents, teaching and learning in different languages, in what constitutes a permanent experience of virtual mobility. The virtual environment used is the open-source "aLF" (www.innova.uned.es).

Together with this, one per year live-seminar where students and teaching staff can interact in person is compulsory for all students. Obligatory face-to-face seminars are intensive, 5 day events, being held in either the Universidad Nacional de Educación a Distancia (UNED, Madrid, Spain), the Universidad Veracruzana Intercultural (UVI, Veracruz, Mexico) or one of the other participating institutions.

2.   Admission and selection for our collaborative programme

Admission and selection are jointly organised by the partners. All of them disseminate the INTER Master's Degree call among its students and local partners, and participate in different stages of the process, as the personal interview, aimed to exchanging ideas and examining the personal interests of everyone applying to study the Master's degree.

Enrolment is through the UNED web site. UNED manages all processes relative to admission, enrolment, payment of fees and dealing with scholarships.

3.   The main incentives for our teaching staff to organize/participate in this collaborative programme

- The INTER Master's Degree

- Making an attractive international programme together with partners abroad

- Responding to the demand of students for an international experience

- Recruiting international students for subsequent collaboration (research, PhD,…)

- Raising the quality by complementary content

- Reinforcing research links

4.   Online support of the collaborative programme and related mobility

Online support is provided through the virtual campus, using UNED'S open-source virtual platform "aLF" (www.innova.uned.es), developed in the framework of a European project. Participants in the virtual campus can share tasks and experiences with other students and teaching staff, access course materials and maintain continous contact during the course. Virtual mobility is possible due to the use of these platforms.

5. Added Value

Added value of the partner collaboration in this programme *for your students*.

The INTER Master's Degree offers an Intercultural experience, gained by learning from different contexts, experiences and traditions, as well as taking advantage of other teaching and learning languages. It promotes international cooperation with other students (in projects, seminars, courses) and learning complementary subjects for different competence profiles (new approaches and methodologies not taught at the home country) related to complementary research and innovation.

Students have the opportunity of learning and innovation by means of participation in practical experiences and R+D projects at universities.
The programme also provides students with virtual access to specific libraries and data bases.

Added value of the partner collaboration of this collaborative programme *for your institution*
UNED is benefiting from the offering of a more complete range of subjects and learning activities, and from the partnership multidisciplinary dimension. The programme has become more attractive, hence it has more impact and more students can be recruited, and the partnership reflects research and innovation links with the partners.

6.   Sharing within the networked curriculum
The networked curriculum allows us to share:

- Courses, course material, content

- Staff (through projects, seminars, workshops, thesis,,…)

- Students (through seminars, workshops, thesis, projects,…)

- Learning environments (a common virtual platform)

- Access to research institutes (CISIC), libraries of partner institutions, data bases, raw research material, recent research reports, thesis work,…

- Networking: research institutes, R&D institutes, societies, associations, etc.

3.   Tallinn University (EE)

3.1   Erasmus Mundus Joint Master Course Digital Library Learning

Author: Sirje Virkus, Institute of Information Studies, Tallinn University

Website: http://dill.hioa.no/

Level of the programme
- Master's Degree

Size of the programme
The DILL programme is delivered on campus, and the students spend one term at each partner institution. The first three terms consist of six modules, each amounting to 15 ECTS. In the first semester at Oslo University College in Norway two modules are offered: (1) Research Methods and Theory of Science and (2) Digital Documents. In the second semester at Tallinn University in Estonia (1) Information and Knowledge Management and (2) Human Resource Management Modules are offered. In the third semester at Parma University in Italy two modules are offered: (1) Access to Digital Libraries and (2) Usage of Digital Libraries: Quantitative and Qualitative Evaluation. In the last term the students write their master's thesis amounting to 30 ECTS. Students can choose to write their master's thesis at any of the three partner institutions, depending on the topic and the location of the main supervisor.

92 students from 47 countries have studied in the DILL programme in the period 2007-2012: 18 from the first intake, 21 from the second intake, 20 from the third intake, 17 from the fourth intake and 16 from the fifth intake.

The Partnership
It is a joint programme between Oslo and Akershus University College of Applied Sciences (Norway), Tallinn University (Estonia) and Parma University (Italy) which was supported in the framework of the Erasmus Mundus programme in 2007. The coordinating institution is Oslo and Akershus University College of Applied Sciences.

Teaching language
The programme is delivered in English

Degree/diploma awarded
The students acquire a joint master's degree (120 ECTS) which is recognised by all three partners.

Financial support

1. Description of the Collaborative Programme

An international masters programme in Digital Library Learning (DILL) (http://dill.hioa.no/) is a two-year programme for information professionals who intend to work in the complex world of digital libraries.

The DILL programme includes two summer schools, before the first semester in Oslo and before the third semester in Parma. All teachers from Oslo, Tallinn and Parma are involved in the summer schools' activities. The internship is an integrated part of the teaching modules given in Parma, but it is an important part of the master programme as such, and relevant for what is being taught in all modules. Stakeholders have been involved via internship activities, teaching process and students' thesis writing process; for example, they have been invited to organize seminars and training activities and they are mentoring students during their internship period of 4 weeks. The mobility is covered by the Erasmus Mundus funding (students mobility and also staff mobility) and also traditional Erasmus mobility (teacher exchange) is integrated to the programme and resources used for the teacher mobility.

2. Admission and Selection for the Collaborative Programme

The number of students to be admitted in each cohort is negotiated annually between the participating institutions in accordance with local capacity and regulations. The maximum number of admitted students for one cohort is 20 third-country students and 10 European students. Applicants must submit an online application, available via the DILL webpage, consisting of the following: personal data, academic qualification, transcript of records (diploma and transcripts of records of university studies), CV, 1-3 reference letters, statement of purpose and proof of English proficiency.

The coordinating institution functions as the programme committee's secretariat, and has the final responsibility for the implementation of all administrative matters in accordance with the consortium agreement and the programme description agreed between partners. Admission to the programme is based upon a joint decision of the cooperating institutions. The admission process is prepared by the coordinating institution in accordance with DILL's admission requirements, and completed by the DILL Selection Committee. The DILL Selection Committee consists of one representative from each cooperating institution, in addition to the administrative coordinator who can contribute to the discussion, but who does not have a right to vote in matters of disagreement. Each student admitted to the programme is enrolled at each of the institutions for the length of the programme. Students are normally subject to the regulations and procedures of the institution at which they follow courses and sit for examinations in a given semester. The appeals policy and procedures in matters relating to modules, assessment and practical matters at each individual institution are subject to national and institutional regulations at the institution responsible for the module.

3. The Main Incentives for Teaching Staff to Participate in this Collaborative Programme

The main reason for developing the DILL programme was the belief that European library and information science education was not very innovative and forward looking. Therefore the intention was to develop a new innovative programme on digital libraries which could be different compared to the

current LIS programmes and could integrate the best expertise of the three partner institutions in the field of digital libraries. In the era of rapid increase of digital information there was a strong need to educate librarians and information professionals with knowledge and skills of advanced digital libraries and introduce the new educational ideas and approaches.

The partners defined the scientific content according to their expertise. Tallinn University has its particular strength in information and knowledge management, e-learning and human resource management perspectives on digital libraries. It teaches these subjects at all levels from BA to PhD. Parma University has its particular strength in computer science approaches to digital libraries, curation of digital collections and use and evaluation of digital libraries. It teaches these subjects at all levels from BA to PhD. Oslo and Akershus University College of Applied Sciences is particularly strong in information retrieval in a digital context, for example XML-retrieval and search models on the web in addition to the social role of libraries, as social arenas. Information architecture is also a part of their expertise. It teaches these subjects on bachelor and master level and is in the process of applying for accreditation for a doctoral programme in the field.

4.   Online Support of the Collaborative Programme and Related Mobility

The DILL modules at Tallinn University have been designed to offer ways that integrate traditional strategies with methods offered by technology for teaching and learning. The blended learning approach in the DILL programme varies each year taking into account the characteristics of the student group and results of the diagnostic analysis survey which is carried out two months before students travel to Tallinn, during the visit of Tallinn University team in Oslo. The goal of the diagnostic analysis survey is to clarify the needs and expectations of the learners for the modules in Tallinn with regard to the content and delivery options. The diagnostic analysis survey provides also a good knowledge about student information technology competencies and their preferred ways of learning.

Students attending face-to-face seminars on campus are using the virtual learning environment (VLE) which is used to facilitate academic community building, the practice of communication skills and to provide resources and tools to support the learning process. All course materials including lecture notes, powerpoint presentation, handouts, assignments, required and additional readings are online to support class activities, and use a standard folder structure (Study Guide, Background Materials, Assignments, Literature, Useful Links and Resources). Students present their individual works in personal portfolios in the VLE, add files, memos, links and wikis. They develop their collaborative projects using the VLE wiki possibilities and present the project results in subgroup e-portfolios.

Several Web 2.0 tools (such as blogs, wikis and RSS) have been integrated within the VLE and discussions begun during seminars continue on the threaded electronic discussion board of the virtual learning platform. Discussion-board activities centered on a specific concept (e.g. digital library, knowledge management, leadership) or topic (e.g. social software and knowledge management, digital library evaluation) have been used both in the IKM and HRM modules. Blogs within personal e-portfolios have been used where students are reflecting on their readings and on other assignments. Youtube videos, blogs, wikis and other tools have also been integrated into class work. Students are reading weblogs of

LIS professionals, using RSS-based services to obtain thematically filtered information, and integrating audio and video podcasts on relevant topics with individual or group work. Facebook is used mainly as a monitoring tool and Skype is used for supporting students educationally, socially as well as emotionally. International students frequently feel lonely being far away from their family and friends and need someone with whom to speak. Therefore, in addition to face-to-face meetings Skype has been found to be a useful student support tool.

The VLE is also used to prepare students with customised reading and learning opportunities. For students who have ranked their competencies highly in diagnostic analysis survey, material is provided to help stretch their skills further, and students who have a lower knowledge level can have material to help improve their competencies. Therefore, the students decide for themselves which supplementary material to use.

The DILL programme has also integrated several video interactions with remote experts where students have discussed relevant topics of IKM. For example, students have had discussion sessions since 2008 with Dr Christian Schlögl from Graz University (Austria) via a video conference after reading his articles. There have been several Skype conferences with Professor Tom Wilson, from Sheffield (UK) and Professor Ron Day from the Indiana University (United States).

Figure 1: Video discussions between Tallinn University and Graz University

Open educational resources (OER) have been developed on the main topics of IKM and HRM and students have to work with them before **coming to** face-to-face seminars**.** It has given students an opportunity to work with the main concepts of the course at their own pace and explore the interactive educational material to the extent they wish. **It has** offered teachers opportunities to spend time during

the classes in a new and challenging way and to focus on necessary parts of the teaching processes. Figure 2 and 3 show the OERs on leadership.
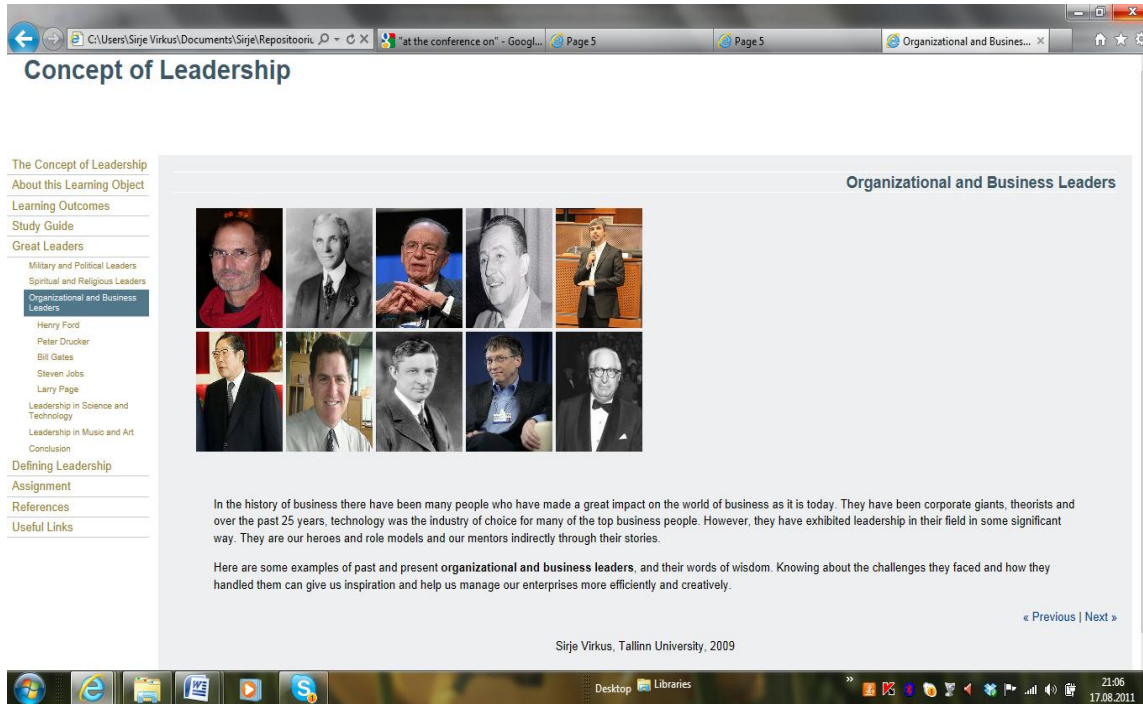

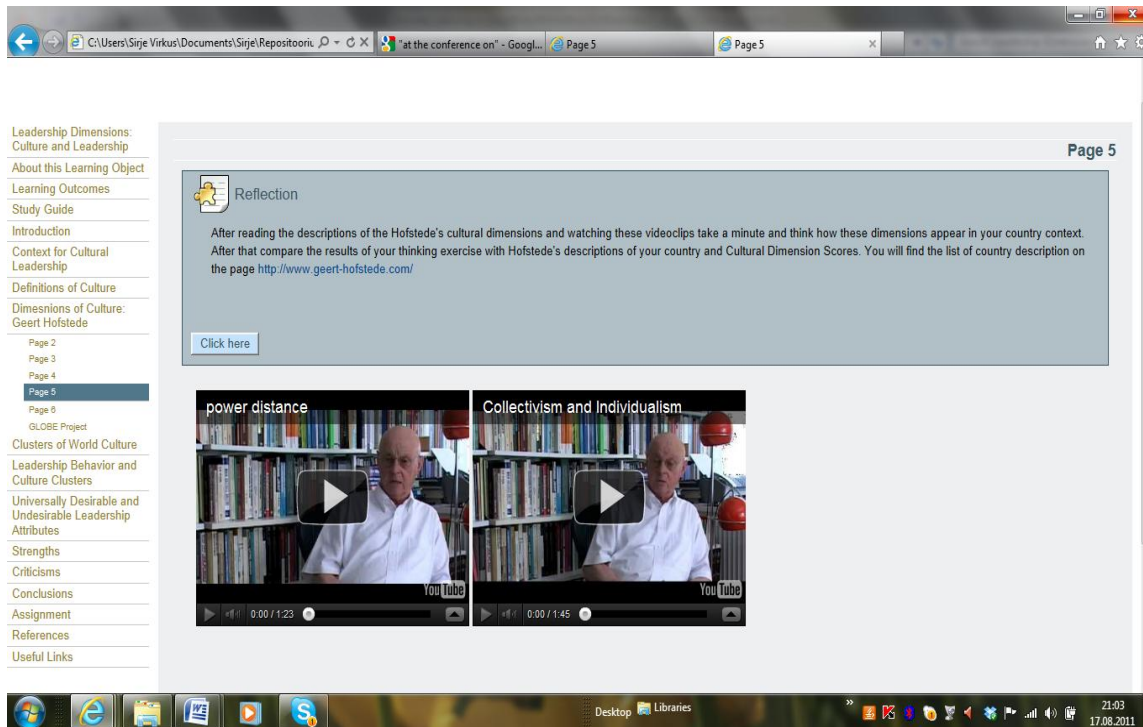**Figure 2:** Example of OER „The Concept of Leadership"

Figure 3: Example of OER „Leadership Dimensions: Culture and Leadership"

Echo 360 Lecture Capture System has been also used to record several lectures and seminars. It facilitates the possibility of giving a lecture once, but use it several times and enable students seek forward or back in a presentation to particular segments of the captured session.
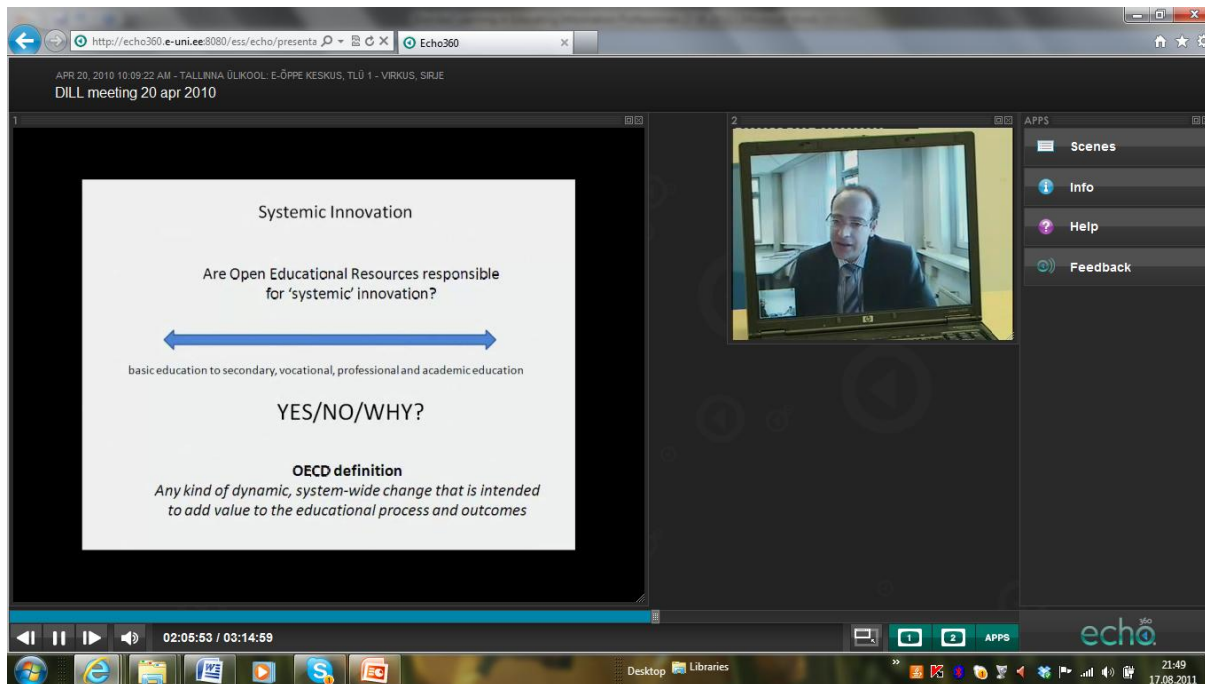

Figure 4: Seminar on OER captured by Echo 360 Lecture Capture System in 2010.

Within the HRM module a virtual collaboration initiative „Entrepreneurship Seminar on European Virtual Venturing"(4 ECTS) was organized between the *Ecole supérieure d'Informatique, réseaux et systèmes d'information* (ITIN) in Cergy- Pontoise (France) and IIS in spring 2010, 2011 and 2012. The seminar aimed to improve students' awareness of and competence in virtual teamwork, enhance their intercultural understanding and develop knowledge and skills that would help them to understand the value, nature and current practice of entrepreneurship.

The seminar consists of ten sessions over ten days. Students are located in two separate geographical locations: in Cergy-Pontoise, France and in Tallinn, Estonia. The basic seminar content is delivered via videoconferences by French and Estonian teachers, but the course capstone is a team project completed over three weeks and presented in the last week of the seminar in a virtual classroom. Each session consists of a synchronous cross-university video lecture of two hours (teachers from France and Estonia) and followed by four hours student teamwork per session.
Student teams are built according to the principle that every team should consist of six students – three from ITIN (France) and three from DILL/TLU (Estonia). Student teams meet virtually, in a virtual classroom following the joint lectures and exchanged email contacts and Skype addresses during the first introductory session so that they could continue working in virtual teams. During teamwork sessions teachers are available for face-to-face consultancy in France and Estonia for local students and via Skype for partners as well.

The Polycom VSX 7000 is used for video conferencing; that combines top-quality audio and video in a single set-top system that's easy to use and manage for anyone. For group work students use mostly

Skype, MSN and emails as communication tools. Open-source e-learning software platform Moodle is used for the delivery of course materials and a wiki for joint project work.

Figure 5: „Entrepreneurship Seminar on European Virtual Venturing" in 2010

Figure 6: „Entrepreneurship Seminar on European Virtual Venturing" in 2010.

Students apply knowledge and skills are acquired during the European Virtual Venturing seminar into the final product – a comprehensive business plan. They present these business plans in a virtual classroom to the fellow students and teachers who were acting as possible investors during the final session in France and Estonia.

Figure 7: „Entrepreneurship Seminar on European Virtual Venturing" in 2011

5.   Added Value

Added Value of the Partner Collaboration in this Programme for your Students
It is recognized that the mobility scheme in which students spend one semester in each partner institution is a good option. Students experience different national cultures as well as academic cultures and different ways of learning and teaching and remain at the same time the joint community of practice. In addition students can also learn local languages - Norwegian, Estonian and Italian. Each partner university is offering the students courses in the local language, free of charge, as well as an introduction to the local culture and traditions. In 2012 a two week session on intercultural competencies was integrated into HRM Module. DILL students also work closely with other Erasmus students; for example, ten Erasmus students selected the DILL Modules in 2012 at Tallinn University, the number of Erasmus students in previous years has been two or three. The collaboration with French students within the Entrepreneurship Seminar on European Virtual Venturing was described in this Compendium before.

Digital libraries are interdisciplinary in nature and can be studied as technological systems, as organization and as collections needing curation. The key areas of development are, for example, network connectivity and interoperability (design), knowledge and meaning (content), and physical and

intellectual access (use). The Modules of the DILL course have been selected to expose the students to this interdisciplinarity and the partners of this programme provide the expertise from the different fields. We have experienced that the particular mobility structure of the DILL programme, where the students stay and move together as a group, creates a dynamic learning environment which allows for optimal sharing of students' knowledge and experiences and provides an atmosphere where the students mutually support and lift each other. In this way the mobility structure is conducive to the realization of the learning objectives.

The use of ICT in this programme could enrich the student learning experiences, provide increased flexibility for students and staff, increase access to remote resources, and support communication, collaboration and knowledge sharing between students and staff. The integration of ICTs into DILL modules offers teachers opportunities to spend time during the classes in a new and challenging way and to focus on pedagogical activities that encourage collaboration, knowledge sharing and reflection.

Added Value of the Partner Collaboration of the Collaborative Programme for the Institution
Tallinn University has benefited from the DILL programme by being able to cover a more complete range of topics provided by different partners with complementary expertise and therefore offering the multidisciplinary dimension to the programme. The programme has become very attractive and there is a growing interest in the DILL programme; 101 applications were submitted in 2007 and 450 applications in 2011. Therefore, one important outcome of this programme has been that the Institute of Information Studies has become internationally more visible. It has helped to develop many professional contacts and develop other European joint research and development projects together. It has widened knowledge in many professional fields and about teaching and learning methods in partner institutions, and it supported the development of intercultural competencies. In addition, many good friends have been acquired in this process. Thus, these activities have been very beneficial both professionally and personally and will be crucial in achieving the internationalisation aims of the Tallinn University and the Institute of Information Studies. DILL programme has been selected to be a part of the third phase of the Erasmus Mundus Quality Assessment project (Contract 2009-5266/001-001 MUN MUNCON, carried out by ECOTEC Research and Consulting Ltd), and assessed by the project team and external experts in 2010. DILL programme and its partnership was rated highly by the Erasmus Mundus Quality Assurance team, led by Prof. Michael Blakemore from ECOTEC Research & Consulting Ltd. The program success has, in turn, encouraged colleagues in other institutes of Tallinn University to think about joint Erasmus Mundus programs.

6.   Sharing within the Networked Curriculum
The DILL programme is an integrated entity and all programme aspects have been discussed jointly at the level of course objectives, learning outcomes, content and assessment criteria. The three participating universities form a programme committee for the Erasmus Mundus Master Course, consisting of two members from each cooperating institution and two elected representatives from the students. The Programme Committee discusses all major academic and administrative issues regarding the Erasmus Mundus Master Course, including changes in the programme description (curriculum). All changes are subject to final approval by the cooperating institutions.

Teachers from Oslo, Tallinn and Parma are involved in the summer schools' activities in Oslo and Parma and in delivering lectures in the modules of partner universities. The assignments in different course modules are designed to complement each other and to develop different social competencies. The student feedback to all courses has been analysed and discussed within the consortium, in the programme committee.There is a common grading scale. The grading is discussed and agreed in the Consortium. All students have graduated with good results and there are no dropouts.

The virtual learning environment IVA is used jointly by all three partners in the consortium. The IVA is managed by Tallinn University, but all partners have access to the platform and teachers have rights to manage the system. A single account is available to access all the services in IVA. The web-platform supports Estonian, English, Finnish, Russian, and Deutsch.

Resources used in Compiling this Compendium:

Virkus, S. (2011). Blended learning in 3-country digital library masters degree. *Multimedia Information & Technology*, 37(1), 18-21.

Virkus, S. (2011). Blended Learning in Educating Information Professionals. *Journal for the Systemic Innovation of Education*, 1(1), 89-102.

Virkus, S. and Lepik, A. (2010). Incorporating Virtual Mobility into DILL Master Programme. In: Proceedings of the EADTU Conference "Strategies and Business Models for Lifelong Learning", Zermatt, 27-29 September, 2010. Heerlen: EADTU.

Virkus. S. (2009). Erasmus Mundus Joint Master Course Digital Library Learning: A Case Study. In: Access to Success: Fostering Trust and Exchange between Europe and Africa. Reader of articles and background material for Workshop: Access and retention: Comparing best practice between Europe and Africa, 17-20 November 2009, Addis Ababa, Ethiophia, (66 - 75). Brussels: EUA

Virkus, S. (2009). Digital Library Education from the Information and Knowledge Management Perspective: Action Research Approach. In: Katsirikou, A. (Ed.) Book of Proceedings. Quantitative and Qualitative Methods in Libraries International Conference (QQML2009), May 26-29, 2009, Chania, Crete, Greece.

4. Fernuniversitat Hagen (DE)

4.1 The Lived Experience of Climate Change (LECH)

Author: Daniel Otto M.A. FernUniversität in Hagen Department of Political Science

Website: http://www.leche.open.ac.uk/

Level of the programme
Master level

Size of the programme
LECH offers three Modules each consisting of a Textbook and a Workbook. Each Module is given approximately 4 ECTS corresponding to 120 hours of work. The Modules can be studied as a whole or separately. The exact size depends on how the Modules are accredited by the universities. All materials will be available as Open Educational Resources (OER) at the end of the project in May 2012.

The partnership
The programme was created by a consortium consisting of
  – The Open University (UK) (Coordinating university)
  – FernUniversität in Hagen (DE)
  – University of Derby (UK)
  – Open Universiteit Nederland (NL)
  – European Association of Distance Teaching Universities (NL)
  – Wageningen University (NL)
  – Universidad Nacional de Educación a Distancia (ES)
  – Universidade Aberta (PT)
  – Katholieke Universiteit Leuven (BE)

Teaching language
All materials, the Virtual Learning Space (VLS) and tutoring are in English.

Degree/diploma awarded
LECH does not offer a stand-alone degree. The Modules can be accredited by the universities and integrated to their own master programmes. LECH is thus offering a set of courses which can be adapted to the programmes of the participating universities.

Financial support
The LECH project is funded by the EC Lifelong Learning Programme from 10/2009 – 05/2012. Beyond, the project collaboration is intended to be funded by the consortium.

1.   Description of the collaborative programme
Climate Change is and has been one of the crucial themes in the past decades and therefore has been analysed and dissected from various perspectives. This project wants to contribute to the scientific, political, personal and organizational discussions about climate change by focusing on what we call the "Lived Experience of Climate Change". The meaning of LECH is understood as the way in which individuals and organisations conceive and respond to the perceived local impacts of climate change (e.g. extreme weather, biodiversity changes). This perspective has not yet been fully explored in the literature. Thus, it complements work which has already been done in the area and does not seek to establish something independent. Students address both individually and collectively their experiences with climate change. They learn about several academic methodologies and about competencies for intervention: this will strengthen their role as European citizens.

The project is conducted by nine participating universities in six European countries, which all contribute their specific knowledge and expertise. The educational standard is on the level of a postgraduate masters degree. What is important about LECH is that it is not conceived as a standalone Master or a programme that runs parallel to existing ones. It is composed as a curriculum which is intended to become an Open Educational Resource (OER) by the end of the project. Both project members and those outside of it are free to use or adapt the content within their own programmes through their normal accreditation processes.

The curriculum consists of three major components. First, there are three teaching modules: 1. An introduction to climate change in the context of sustainable development 2. The lived experience of climate change 3. Interdisciplinary methodologies for investigation into the 'lived experiences' of climate change. The first and second modules of the first component are an introduction to the subject area, while the third teaches how to do research on it. These modules are supplemented by a cross-cutting water case study which compares the natural resource issues along the Nile and Rhine Rivers. The second component is a Masters Dissertation package which contains possible dissertation topics for the student's thesis. All this is accompanied by the third component, a virtual learning space platform (VLS), which is understood as a moderated virtual classroom for students and supervisors for the above modules. In addition, students are able to interact and form a learning community in relation to the academic rigours of their dissertations. Thus, via the VLS an ongoing monitoring and supervising of the package is also warranted.

Ultimately, this project contributes towards an informed and active European citizenship, by developing 'intervention competence'. The project will create a European community of scholars as well as informed learners who collectively can make a major contribution to the current UN Decade on Education for Sustainable Development and beyond.

2.   Admission and selection for our collaborative programme

Admission and selection is organized by every university on behalf of their requirements. Because the level of the course is master, a first university degree can be seen as the minimum necessity.

3.   The main incentives for our teaching staff to organize/participate in this collaborative programme

Main incentive and overall aim is to gain a greater knowledge and better understanding of climate change by complementing the academic, disciplinary approach with what we call LECH. This provides a new understanding of climate change, its quantitative and qualitative impacts on individual and collective lives and livelihoods and their responses to those impacts. We consider the LECH to be interesting for several Masters and other postgraduate programmes because the topic of the real lived experiences of climate change is currently under-researched. Thus, it should give existing programmes a broader and alternative way of looking at the phenomenon. Ultimately we wish this project to contribute to an informed and active European citizenship.

4.   Online support of the collaborative programme and related mobility

A virtual learning space platform (VLS) is offered by the project consortium. The VLS is conceived to support the virtual mobility of students and staff. It should enable the formation of 'learning communities' in which students, staff and non-academics with a wide range of backgrounds can communicate, collaborate and learn on topics pertaining to the 'lived experience of climate change'. Almost all material relevant to study the Modules is available in the VLS. The VLS is continuously been supervised and updated, ensuring it is always up to the latest state of the art.

5.   Added value of the programme

Added value of the partner collaboration for our students

LECH gives the students the opportunity to communicate (exchange of information, analyses, experiences, views, etc.) and collaborate in an interdisciplinary European learning environment. Students and teachers from a diversity of environments, across Europe, from a diversity of disciplines and masters programmes can collaborate together. This virtual mobility-based educational approach will thus help students to engage with the lived experience of climate change. Simultaneously they practice and develop the competence to communicate, collaborate and learn across the boundaries between socio-cultural backgrounds, scientific disciplines, and science & society. Development of this 'transboundary competence' will prepare them to deal with other multi-faced sustainability issues as well and contribute effectively to sustainable development.

A "pilot phase" was initiated to test the Modules. About 40 students from five universities participated in the pilot. In the evaluation following the course, 96 would recommend the course to others. In an overall ranking the course has been given 8.6 on a scale from 1-10.

Added value of this collaborative programme for our institution

LECH brings together an association of nine participating universities from six EU countries, each with an excellent research background and special expertise in a specific domain. Commonly high quality interdisciplinary teaching materials were produced on the issue of climate change. We combined

expertise to understand, analyse and appreciate the importance of the under-researched area of the lived experience of climate. As it is not understood as an autonomous Master programme, but rather as a curriculum, it offers full flexibility to integrate the modules. For example an institution can integrate one or more of the modules, in whole or in part, and accredit with an ECTS points rating, typically by adding formal assessment and providing student support, in accordance with its own institutional mechanisms.

6.   Sharing within the networked curriculum

- The project has produced three courses on a master level, which will all be Open Educational Resources (OER) at the end of the project. 1. An introduction to climate change in the context of sustainable development 2. The lived experience of climate change 3. Interdisciplinary methodologies for investigation into the 'lived experiences' of climate change.
- The project created a virtual learning space (VLS) at the Virtual Campus for a Sustainable Europe (VCSE) (http://www2.leuphana.de/vcse/) which will sustain beyond the end of the project.
- The project guest-edited a special issue of the International Journal of Innovation and Sustainable Development 2012, Vol.6 No.1.
  http://www.inderscience.com/browse/index.php?journalCODE=ijisd
- The project members have attended several conferences, for example, project coordinator Gordon Wilson gave a keynote to the European Association of Distance Teaching Universities Annual Conference, 3-4 November 2011, at Anadolu University, Eskisehir, Turkey.
- A project site has been created and this site continuously informs about recent developments http://www.leche.open.ac.uk/

5.   Katholieke Universiteit Leuven (BE)

5.1   LACE, Literature And Change in Europe

Author: Frederik Truyen, Institute for Cultural Studies - K.U. Leuven

Website: http://drupal.arts.kuleuven.be/lace/

Level of the programme
- Master

Size of the programme

The programme consists of a group of courses of 30 ECTS in English per university, and the learning modality is blended. The average number of participating students per year is more than 75 together with 10 to 20 professors. We have two common online courses in Moodle, and will have more in the future.

The Partnership

LACE is a pilot project for a joint degree and an Erasmus Mundus. This international network consists of the universities of Leuven, Groningen, Aarhus, Tartu, Groningen, Granada and Bologna, and started in 2009. The initiative was taken after a long lasting contact between core partners and an innovation project funded at KU Leuven. When it comes to management, the cooperation is structured by a working group with annual meetings. We work at a department and personal level. The administrative aspects are centralized in Leuven.

Teaching language

The programme consists of a group of courses of 30 ECTS in English per university. The other courses are in the own language. The common courses are in English as well.

Degree/diploma awarded

At het moment still a single degree with Erasmus exchanges, but we are working towards a joint and double degree. And an Erasmus Mundus within a couple of years. The different legal and administrative procedures in all countries slow us down a bit.

Financial support

The project is financed by Erasmus grants and local KU Leuven funding until 2011.

1.   Description of the collaborative programme

The LACE partnership wants to improve the international experience of master students and staff of the participating institutions through Erasmus exchanges and the elaboration of an open curriculum. Addressing literature, film and theatre as cultural practices, LACE foregrounds the two notions of value and change. Complementarity is the focus on the curriculum between the different partners, and teacher exchange. All programme contents and course objectives have been discussed among the partners. In the beginning, the project, was founded on a strong personal acquaintance and understanding amongst the participating members, later we wanted more geographical spreading in Europe. Five core partners knew each other, two are new, and one left us. In the first phase we want to develop a common core of 30 ECTS to facilitate the creation of a joint degree. All partners use the ECTS system. All partners accredit the programme because the common core of the programme is part of each institutions own curriculum.

The curriculum includes both physical and virtual mobility of students, teachers and collaborators. A selection of students and teachers does their exchange through the regular Erasmus procedures. The LACE network encourages teachers to participate in the exchanges. For students we allow a period of 1 semester for courses and/ or internships, for teachers we allow an exchange in the form of a block seminar of 1 week.

2.   Admission and selection for our collaborative programme

Admission of all students is free, they only have to subscribe in the master program of their own university. Every single university is organizing admission and selection on its behalf. For Erasmus exchanges they need to have sufficient knowledge of the language of the country where they are going to.

3.   The main incentives for our teaching staff to organize/participate in this collaborative programme

It's a simple but very efficient way to internationalize the course offerings with the expertise of foreign colleagues. The idea is that in the current context, the master programmes involved, they feel the need to internationalize to be able to reach their stated pedagogical goals. Whether it involves a Master in Cultural Studies or in Western Literature, the cultural background of the teaching is definitely European and can only be fully experienced in a European context. For these reasons, partners involved in LACE are keen to host a more "European" mix of students in their classrooms. This also answers the demand of students for an international experience. We offer virtual mobility as well, to give a bigger group of students this 'international experience at home'. In the future we want to make an attractive common international program together with our partners. We also want to uplift our research collaboration.

4.   Online support of the collaborative programme and related mobility

We use a forum and mixed group assignments within different institutions. When it comes to synchronous activities we use a blended model with video conference, chat boxes, Skype and web lectures. The virtual community we use for this is Moodle, managed by KU Leuven. We created a website for the network in Drupal.

5.   Added value of the programme

Added value of the partner collaboration in this programme *for your students*.

- Intercultural experience, learning in another environment/language learning
- Personal development by living independently in a different environment
- International cooperation with other students (in projects, seminars, courses, thesis work; internships companies)
- Learning complementary subjects for different competence profiles (not taught at the home university), related to complementary research and innovation
- Access to specific infrastructure, labs, libraries, facilities, staff
- International recognized title (in the future)
- Learning and innovation

Added value of the partner collaboration of this collaborative programme *for your institution*

- A more complete range of subjects and learning activities is offered
- The partnership offers an additional multidisciplinary dimension to the programme
- The programme has become more attractive, hence it has more impact and more students can be recruited
- The partnership reflects research and innovation links with the partners
- Using new technologies, video tools,...
- 21the century learning, lifelong learning,...

6.   Sharing within the networked curriculum

- Courses, course material, content, weblectures
- Staff (through (joint) lectures, projects, seminars, workshops, thesis, summer schools, projects,…)
- Students (through mobility or (joint)lectures, projects, seminars, workshops, thesis, summer schools, projects,…)
- Learning environments, learning communities (Moodle)
- Access to recent research reports, thesis work, Phd's
- Networks and networking
- Internships for students

6. Open Universiteit (NL)

6.1 Free Technology Academy

Author: Lex Bijlsma, dean faculty of Informatics, Open Universiteit

Website: http://ftacademy.org

Level of the programme
Master level

Size of the programme
A total of 11 different courses of 5 ECTS are being offered. During the years 2010 and 2011 online tutoring by the partner universities was available. The number of course registrations has been between 150 and 200 per year. As this number is too low to provide university tutoring in a cost-effective way, it was decided that from 2012 onwards tutoring will only be provided by the Free Knowledge Institute and only in cases where the demand is sufficient.
 All course books are available as Open Educational Resources (http://ftacademy.org/materials) and have been downloaded hundreds of thousands of times, so the influence of the programme reaches further than just the registered students. Also, many external parties are publishing translations of the course materials and/or using these in their own university courses.

The partnership
The programme was created by a consortium consisting of
- Free Knowledge Institute (FKI), Amsterdam, The Netherlands (non-profit organization)
- Universitat Oberta de Catalunya (UOC), Barcelona, Spain
- Open Universiteit (OUNL), Heerlen, The Netherlands
- Universitetet i Agder (UiA), Kristiansand, Norway

Associate partners, not part of the consortium but contributing in other ways, are
- SEED, Switzerland
- Gleducar, Argentina
- Foundation for P2P Alternatives
- Free Software Foundation
- Universidad Rey Juan Carlos (URJC), Madrid, Spain
- ict@innovation
- Varna Free University, Bulgaria

- Aristotle University, Thessaloniki, Greece
- Association of Greek Users and Friends of Free Software / Open Source Software

Teaching language

All materials and tutoring are in English. Several associate partners and volunteers have provided translations of the materials into other languages.

Degree/diploma awarded

The FTA is not a university and therefore cannot award master degrees. This is a very visible caveat at the website. What the FTA is offering is a set of courses at master level, based on accredited master programmes at the participating universities, and tutored by university staff. However, recognition of these courses in any master programme would depend on the university running such a programme. In particular, the three consortium universities – UOC, OUNL and UiA – have recognized FTA courses within their master programmes. During 2010 and 2011 a total of 114 course certificates were issued.

In February 2012, a project for setting up an international framework for accredited master programmes on free technologies was created, and submitted for EC funding (reference number 527371-LLP-1-2012-1-NL-ERASMUS-EMCR). Partners in this project are FKI, UOC, OUNL, URJC and the University of East London (UEL, London, UK). As a concrete initiative fitting within such a framework, UOC, OUNL and URJC are at present investigating the legal and practical possibility of instituting a joint master degree.

Financial support

The preparation phase and the first year of operations were funded by the EC Lifelong Learning Programme (project number 142706-LLP-I_2008-1-NL_ERASMUS_EVC).

1.   Description of the collaborative programme

Free Software, also known as open source or libre software, allows the code to be used freely, which means that it can be used, copied, studied, modified and redistributed without restrictions. Free Software, as opposed to proprietary software, offers the freedom to learn and to teach without engaging in dependencies on any single technology provider. This freedom of choice is considered a basic condition for an autonomous person in the information society.

The expansion of Free Software has brought together a continually growing global community of developers, by offering solid quality products which have not gone unnoticed in business, government and academic circles. Big industrial players such as IBM have brought Free Software into their business models. The European Commission and many national, regional and local governments have started adopting open standards and show a preference for Free Software to cover their IT needs.

Although there is a growing interest in free technologies (Free Software and Open Standards), still a limited number of IT professionals, teachers and decision makers have sufficient knowledge and expertise in these fields. This is particularly problematic since these are crucial actors in promoting and implementing free technologies.

In order to tackle this problem, the Free Technology Academy (FTA) was set up as a distance learning programme. This distance learning programme consists of specific modules to enable IT professionals, students, teachers and decision makers to upgrade knowledge and acquire relevant skills on free

technologies. Those users interested in getting a master degree could complete their study and get a master degree at one of the participating universities.

The FTA Board is the central management level within the FTA that is responsible for all the activities within the FTA and thus also for the QA measures.

The FTA Board has established a joint Scientific Council with recognised international specialists to oversee QA procedures in relation to: the curricula and learning materials, learner performance, tutors, learning facilities and outcomes of assessment.

In the first year of operations, students from 26 different countries participated in courses at the FTA. Teaching was performed by tutors and assistant professors from the three participating universities and by independent specialists specifically engaged for the purpose.

2. Admission and selection for our collaborative programme

Admission is open to anyone. Individual courses may have prerequisite knowledge or expericne; this is always listed at the course website. Recognition of course certificates within various master programmes requires admission to these master programmes, which have their separate admissibility criteria, usually involving a bachelor degree in a related field.

3. The main incentives for our teaching staff to organize/participate in this collaborative programme

As argued above, there is a recognized need for education about Free Software. However, within a single country the number of students demanding such education is insufficient to aloocate the resources necessary for setting up a complete master programme. Joining forces between several universities in different countries enables sharing the burden of materials creation and tutoring. Moreover, a common international initiative makes it possible to attract the top specialists in the field for guest lecturing or participation in the Scientific Council.

4. Online support of the collaborative programme and related mobility

All tutoring takes place in The FTA Virtual Campus, which integrates a learning management system, forums, a survey tool, wiki software, blogging software, instant messaging, social networking, microblogging and PDF annotation in a coherent user experience. In keeping with the goals of the programme, the entire campus is built from Free Software.

5. Added value of the programme

Added value of the partner collaboration for our students

The possibility of incorporating FTA courses into their individual study programme gives our students a greater range of electives to choose from. The teaching method involves participation in group discussions with other students from all over the world, offering a unique opportunity to gain an international perspective.

A special feature of FTA teaching materials is that they offer users the possibility to suggest improvements and additions through the annotation tool incorporated into the virtual campus.

Added value of this collaborative programme for our institution

Our institution would not have been able to free a sufficient amount of resources to set up a similar programme on its own. Thus the collaboration has enabled us to offer a richer set of options and to attract students with a special interest in the Free Technology field. Moreover, participating in the FTA has led to fruitful contacts with other institutions that will potentially lead to joint or common degrees in the future.

6.   Sharing within the networked curriculum

The common curriculum consists of courses that originated within existing programmes of UOC (for the most), OUNL and URJC. The tutoring was shared among UOC, OUNL, UiA and independent specialists; there was no a priori correspondence between the organization that had created the materials and the one providing the tutoring. Students came from all over the world, not just from participating countries, but OUNL students formed the largest single category. In the past years, FTA participants have published a sizable number of research papers dealing with various aspects of the project, most of these involving collaboration between authors from different organizations and different countries.

6.2   EVS – European Virtual Seminar on Sustainable Development

Authors: Joop de Kraker & Ron Cörvers, Open Universiteit

Website: www.ou.nl/evs

Level of the course
- Master of Science

Size of the course

The study load of the EVS course is 4-5 ECTS, the exact number of credit points depending on the local arrangements of the partner universities.

EVS started in 2001 and has been offered each year ever since (Table 1). On average 60 students from 12 participating universities enroll in EVS each year.

The partnership

EVS is offered by a partnership of European universities, coordinated by Open Universiteit (Heerlen, The Netherlands). The partnership is flexible, consisting of a core group of six founding universities and a variable number of other universities (Table 1). Since 2008 the composition of the partnership is stable, with on average 12 partners, representing a fruitful mix of regular and distance learning universities (Table 2).

Teaching language

The teaching language is English, which is the native language for none of the participating universities. This has two advantages: (1) there is no risk of dominance of the network by native speakers, (2) participating in the network offers the opportunity to improve English language skills. Students mention this advantage frequently.

Certificate awarded

EVS is a formally accredited course in all of the participating universities, with the exception of International Sakharov Environmental University (Minsk, Belarus). In one university, Open Universiteit, it is a compulsory course in the Master of Environmental Sciences program. In the other universities it is either an optional or elective course. All students passing EVS receive a special EVS Certificate, signed by both the central and the institutional coordinator, which includes a specification of the contents and size of the course.

Financial support

The development of EVS was partially supported by a grant from the European DG Education & Culture. Ever since it has run without external financial support. EVS is a joint, networked course, based on a the

principle of collectively investing staff time. In addition, the coordinating institution, Open Universiteit, supports EVS by providing access to and maintenance of a virtual learning environment.

Table 1. EVS in figures (2001-2011)

Year	Participating universities	Countries	Case studies	Student groups	Students enrolled
2001	9	4	3	6	59
2002	11	5	4	6	45
2003	15	9	5	11	61
2004	18	11	5	13	78
2005	12	9	5	10	68
2006	9	8	6	8	36
2007	6	5	3	3	22
2008	13	11	5	8	58
2009	11	9	7	8	74
2010	12	10	9	9	88
2011	12	10	7	9	73
Average	**12**	**8**	**5**	**8**	**60**

Table 2. EVS partnership composition as of 2011, indicating for each partner the year of joining EVS.

Year	University	Unit	City	Country	Type of university
2001	Open Universiteit	School of Science	Heerlen	The Netherlands	distance
2001	Leuphana Universität	Institute for Environmental & Sustainability Communication	Lüneburg	Germany	regular
2001	Karl Franzens Universität	Department of Geography & Regional Science	Graz	Austria	regular
2001	Charles University	Environment Center	Prague	Czech Republic	regular
2001	University of Antwerp	Institute of Environment & Sustainable Development	Antwerp	Belgium	regular
2003	University of Bucharest	Faculty of Geology & Geophysics	Bucharest	Romania	regular
2008	University of the Aegean	Department of Environment	Mytilene	Greece	regular
2008	University of Maribor	Faculty of Chemistry & Chemical Engineering	Maribor	Slovenia	regular
2008	Universidade Aberta	Department of Sciences & Technology	Lisbon	Portugal	distance
2008	Carl von Ossietzky Universität	Center for Environmental & Sustainability Research	Oldenburg	Germany	regular
2008	International Sakharov Environmental University	Faculty of Environmental Monitoring	Minsk	Belarus	regular
2009	FernUniversität	Institut für Politikwissenschaft	Hagen	Germany	distance

1.   Description of the EVS course

1.1 General description

There are many ways to describe EVS. EVS could be described as an international course (with participants from over 10 countries), a multidisciplinary course (with experts and students from over 10 disciplines involved), a networked course (offered jointly by a partnership of more than 10 universities), a collaborative course (with students working together in small groups), a course on Sustainable Development & Europe (offering a wide range of case studies in this area), and as a virtual course (using an electronic learning environment based a social network platform). Detailed descriptions of EVS can be found in Cörvers et al. (2007) and Cörvers & De Kraker (2009). In this subsection, the organizational model of EVS will be described. The next subsection (1.2) describes the educational format and structure of EVS.

The organisational model for EVS is a bottom-up network approach with distributed responsibilities, operating without formal, top-down institutional arrangements. The distribution of tasks and responsibilities over the partners is differentiated, as institutions can become partners in an EVS run at three different levels: (1) providing students and an institutional coordinator, (2) providing one or more tutors in addition to (1), and (3) supplying a case study and providing an expert in addition to (2). The idea is that a new EVS partner starts at the first level before – hopefully after positive experiences – moving on to level two, and finally, to level three. It is up to each institution to decide at which level it wishes to start, and when it wants to switch to a different level of participation, becoming either more or less involved in the EVS. The central EVS coordinator (Open Universiteit) is responsible for the overall management and the development of EVS, as well as for maintaining the virtual learning environment. The other partners tutor and assess the student groups, develop case studies, implement EVS at their institutions (as a compulsory or optional course), and recruit and select students. Each participating university appoints an institutional coordinator who is responsible for the management and administration issues for his/her EVS students (intake procedure, student details, credit points etc.). Since students participating in EVS continue to be regular students of their home universities, no formal enrolment at a foreign university is necessary. Neither do they have to pay any extra fees for participating in EVS. The collaboration between the partner institutions can be described as a joint process of ongoing development of the EVS in educational and organizational respects.

1.2 Educational format and structure

The term 'seminar' traditionally refers to a study group working under the guidance of a teacher. An advantage of a 'virtual' seminar, using modern ICT and the Internet, is that it enables communication, independent of time and place, between the students and their teacher, and – even more importantly – between the students themselves. In EVS, students with different national and disciplinary backgrounds work together on case studies in sustainable development. The ultimate goal of the EVS is to create a dialogue on sustainable development – in which students question each other to understand the ideas underlying their statements – between geographically dispersed students in a learning community. The educational format for EVS therefore supports collaborative learning, which is an educational approach in which students work in small groups to achieve a common goal. The educational format for EVS

consists of the following components (Figure 1):
• learning communities of geographically dispersed students, their tutors and subject matter experts;
• learning content that consists of case studies in sustainable development, triggering collaboration between students;
• learning activities that support collaboration between students of different nationalities and from different cultural and disciplinary backgrounds;
• learning tools, based on modern ICT and the Internet, facilitating collaboration, communication and interaction between students.

Figure 1. Key components of EVS: content, activities and tools support learning in the learning communities (case study groups).
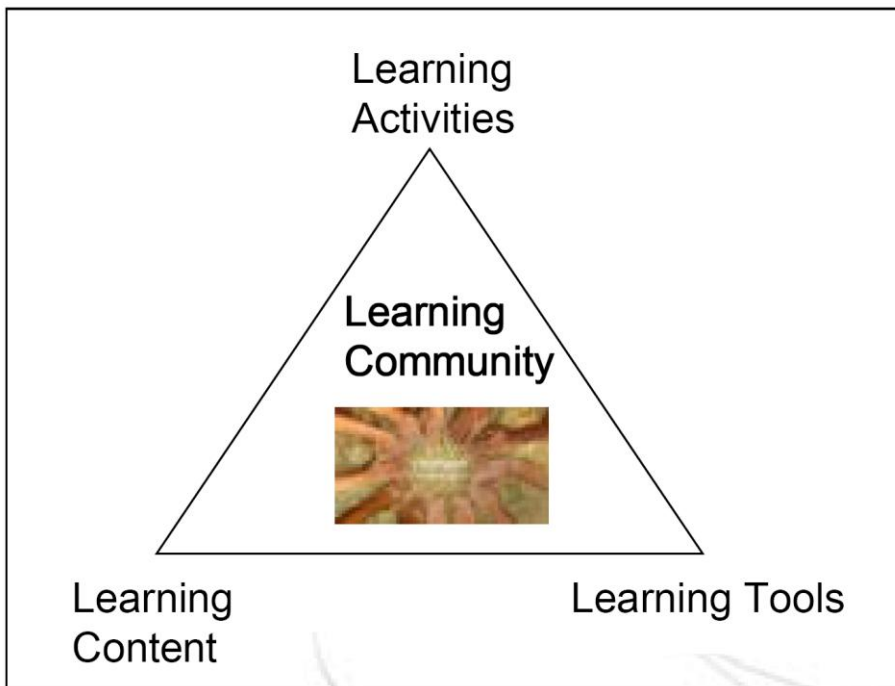
The learning activities in EVS are structured into five consecutive stages, starting in October and ending in March. The emphasis in terms of study load is on the collaborative research and report writing stage (Table 3).

1.3 Student and staff mobility

EVS offers students from the participating universities the opportunity of virtual mobility over a 5-month period. In the case of EVS, virtual mobility is multi-lateral and involves choosing a case study offered by experts and tutored by teachers from another European university, and conducting research on this case study in a group with students from different European universities, nationalities and disciplinary backgrounds. The course is supported by a virtual learning environment based on a social networking platform. This offers the students extensive facilities to network with their fellow students (about 60 from 10 different countries) and the teaching staff (about 20). For several of the participating universities, in particular the distance learning universities, this is the only truly international experience students have in their Master program.

To staff EVS offers the opportunity to work in a highly international, multi-disciplinary team. Within the team, staff can perform different roles: coordinator, tutor, or expert. On average 20 staff members from 12 European universities participate each year in EVS. The team consists of a mix of more and less experienced staff. Combined with the rich mix of disciplines, expertise, and institutional backgrounds, this offers many opportunities for mutual learning between the staff members. The virtual learning environment provides a dedicated EVS staff group platform to support interaction between the staff members during a run of EVS. Another enriching experience for the staff is the interaction with students from other universities. Annually, a self-financed, face-to-face EVS staff meeting is organized at the end of each run, for course evaluation, student marking and team bonding.

Table 3. EVS learning activities, structured into five stages.

Stage	Period	Study load	Activities	Deliverable
Student enrolment & orientation	October-November	5 h	Enrolment per university; Registration on EVS platform; Individual activities	Personal profile page
Group formation & activities	November	10 h	Discuss SD concept; Apply to case study, Inventory of expertise	Case-specific definition of SD
Group research proposal	December	25 h	Joint development of research proposal	Draft + final research proposal
Research & report writing	January-February	50 h	Literature+data collection; Analysis of results; Discussion of conclusions; Draft report writing	Draft group research report
Final report & presentation	February-March	30 h	Rewriting draft report; Making presentation; Reflection on group process	Final research report; PPT presentation; Group reflection report

2.   Admission and selection for EVS

Recruitment and enrolment of students into EVS is managed by each partner university for its own students, according to the local requirements for admission to this course (e.g., only students from a certain Master program may be admitted). However, a second selection step is conducted by the local EVS coordinator, based on a set of additional criteria, jointly agreed by the partnership (Box 1).

After enrolment into EVS and before being admitted to the group phase of the course, there is a one-week period during which students have to perform a number of individual activities to demonstrate their ability and actual motivation to participate in a virtual, collaborative course. The drop-out rate in this initial self-selection phase is about 20%.

Box 1. Requirements for students to participate in EVS.

To participate in EVS, a student should:

- be interested in sustainable development issues

- be keen to perform group work

- be able to read and write (basic) English

- be able to spend 8-10 hours a week on the course

- have access to a computer with an internet connection

- be open to e-learning.

3.   Added value of EVS

3.1 Added value for participating staff

The most important incentive for staff to participate in EVS is the added value that can be offered to the students (see section 3.2), which raises the quality of the study program and potentially attracts more students.

In addition to this, participation in EVS offers staff the opportunity to gain knowledge and experience with innovative ways of teaching and learning, using up-to-date web-based tools. Moreover, as EVS is a widely recognized best-practice example of an international, multi-disciplinary collaborative course, participation in EVS adds to the reputation of the staff involved.

Finally, the EVS partnership has formed the gateway for participating staff to several consortia successful in acquiring project funding from the European Lifelong Learning Programme or its predecessors.

3.2 Added value for participating students

Participation in EVS offers students a truly international and multidisciplinary learning experience. Students of different national, cultural and disciplinary backgrounds work intensively together in small groups (4-7 persons) over a period of five months. As such, EVS provides a powerful learning environment for the development of transboundary competence. Transboundary competence is the

ability to communicate and collaborate across knowledge boundaries originating from differences in, e.g., nationality, culture or discipline. It is an essential skill in dealing with complex problems that are characterized by a diversity – or even divergence - of perspectives on causes and solutions, such as sustainable development and climate change.

Due to its virtual nature, EVS offers students from distance learning universities the opportunity to combine an international learning experience with their professional and social life, and students from regular universities to combine EVS easily with their face-to-face study program. The latter students are also often interested in EVS to gain experience in innovative ways of web-based learning.

A third added value to students is the range of case studies and complementary expertise offered in EVS. This provides students with a wide choice in topics for specialization, the preferred case study usually being offered by a foreign partner university.

3.3 Added value for participating institutions

The added value of EVS at the institutional level largely overlaps with the added value for participating staff: raising the quality of the study program and its attractiveness to students, enhancing the institution's reputation by association with a highly regarded, innovative course, and access to consortia successful in acquiring external funds.

An additional added value from an institutional perspective is that EVS provides a very cost-effective opportunity to offer a course that includes an international experience and a wide and more complete range of expert knowledge, and adds a multidisciplinary dimension to the study program.

4.   Online support of EVS and related virtual mobility

One of the key components of EVS are the learning tools, facilitating collaboration, communication and interaction between students. For EVS as a virtual course, these tools are provided in an integrated virtual learning environment (VLE), with functionalities such as electronic discussion forums and file exchange tools. During the first 10 years of EVS, Blackboard was used as the platform for the VLE (for details, see Cörvers et al., 2007). Blackboard is a widely used educational content management system (or 'learning management system'), which offers a highly structured, teacher-managed course environment. Although adequate even for an atypical course as EVS, Blackboard is not very suitable for supporting social interactions. However, such social interactions are important for successful collaboration in the international, multidisciplinary students groups, which forms the basis of the learning process in EVS and its approach to virtual mobility. To support the social dimension of virtual collaboration and mobility, tools enhancing group awareness (Kreijns, 2004) and personal profiling (Rusman, 2011) are particularly important. Social network platforms typically provide such functionalities, and therefore we designed a completely new VLE for EVS based on the social network software Elgg (for details, see De Kraker et al., 2011). A comparison between EVS-Blackboard and EVS-Elgg based on the NetCu Toolbox framework of functionalities is presented in Table 4. This comparison makes clear that Elgg offers many more tools for communication, collaboration, sharing and social learning than Blackboard.

Table 4. Comparison of two EVS learning platforms following the NetCu Toolbox framework of functionalities. The signs (+ or -) indicate the availability of tools per functionality.

Functionality	EVS-Blackboard	EVS-Elgg
Integrated systems	+	+
Communication tools	++	+++
Collaboration tools	-	++
Live presentation tools	-	-
Publishing and sharing tools	+	+++
Social and personal learning tools	-	+++
Research and Evaluation tools	-	+/-

The EVS-Elgg platform is composed of three main elements: a central home page, group pages, and member pages (Figure 2). The central home page is both the external, public face of the EVS community and the portal to the community. As the external face of the EVS community, it gives visitors a flavour of the community: the members, the activities, the groups and the topics discussed in EVS. For the members of the EVS community it functions as a portal. After login, it provides access to personal profiles, groups and tools of the platform. It also gives 'inside information' about the state of the EVS community: news, latest activities, new members, groups, and tag cloud. The group pages is where it happens in EVS. The most important groups are EVS Students, EVS Staff and the case study groups. In each group, tools are available for connecting, informing, discussing, and sharing at group level. The profile pages for the members of the EVS community – students and staff - are very important, because they give faces to the community. This is meant both literally (with a photo) and by way of speaking (with personal information). Apart from sharing personal information in a fixed profile template, members can also use the profile page to post files, photos or blogs; in fact, anything they want to share with the EVS community. In addition to the internal tools, the EVS-Elgg tool bar also includes as standard options three external tools: Google Docs for collaborative work on documents, Doodle for making appointments for online meetings, and Skype to support these online, real-time group meetings.

Figure 2. Main elements of the EVS-Elgg learning platform, interconnected through information streams.

EVS Home page

EVS Group pages

EVS Student pages

make use of the

NetCu Toolbox

'co   ols were most in

other   ols were not much used.

annotati   haring of contributions.

importance both students (in evaluations) and researchers have attached to social interaction in EVS.
However, it   s, in particular those not used to e-le   rence
for synchronous tools, such as Skype, to satisfy the need for social interaction.

All students indicated that the profiling and networking tools helped to get to know each other and that the group environment, with the pictures of all members always visible, helped to develop a sense of community. The performance, however, in terms of group process and group products (reports) varied markedly between the nine student groups (Table 5). Also the use of the VLE functionalities, measured in terms of files exchanged ('Files'), jointly, online produced documents ('Pages'), and discussion lines started ('Discussion') differed substantially between the groups, as did the use of the external tools Skype and Google Docs (as an alternative to 'Pages'). Table 5 indicates a clear correlation between the quality of group process and group products on the one hand and the intensity of tool use on the other hand. A more in-depth study of the group processes made clear that active and effective tool use is a consequence rather than a cause of high quality. In other words, well-organized groups of well-motivated students are able to make effective use of the tools offered in the VLE. Vice versa, the availability of tools to support collaborative learning does not help groups, in case they are not well-organized and well-motivated.

Table 5. Performance and tool use of nine student groups in EVS, 2011-2012, using the EVS-Elgg platform.

Group	Process	Product	Files	Pages	Discussion	Skype	GoogleDocs

number							
2	excellent	excellent	70	7	47	+++	-
1	good	good	24	3	25	++	++
4	good	good	70	3	30	++	-
5	good	good	40	1	29	++	-
6	good	good	40	9	21	+/-	-
7	good	good	50	9	13	+/-	-
8	sufficient	sufficient	8	1	9	++	-
3	poor	poor	30	1	10	+	+
9	poor	poor	10	2	13	++	-

In conclusion, for successful performance in EVS, selection and motivation of students are of prime importance. This means that the role of coordinators and tutors in EVS is crucial and cannot be replaced by ICT tools. These tools have clearly a supporting role: they help well-organized and well-motivated student groups to collaborate well and to deliver high-quality products. Profiling and networking tools are important to get to know each other and to develop a sense of community. Communication, collaboration, and publishing tools are important in supporting the group work. To support social interaction, online synchronous meeting tools, such as Skype, are preferred by the students over asynchronous social software tools.

5.   Sharing within EVS as a networked course
The EVS organizational model is founded on the principle of sharing of people and resources, without the need for external funding. More specifically, the EVS partnership shares:
- learning materials, in the form of case study descriptions and readers,
- staff, investing time in the course as coordinators, tutors and case study experts,
- expertise, both on learning content (case studies) and learning process (virtual collaboration),
- students, enabling the formation of international, multidisciplinary case study groups,
- virtual learning environment and server space, including social networking facilities.
The EVS organizational model thus minimizes out-of-pocket costs by following a 'quid pro quo' approach, based on sharing of people and resources. External subsidies were only used in the starting phase, to develop the concept, to form a core group of partners, and to develop the virtual learning environment. The subsequent, uninterrupted operation of EVS over the past ten years provides ample proof that this is a durable and financially viable model.

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7.   Anadolu University (TR)

7.1   Anadolu University-Empire State College, State University of New (SUNY-ESC) York e-MBA Program

Authors: Elif Toprak, Evrim Genc Kumtepe, Alper T. Kumtepe and A. Emre Demirci.

The website of the programme is located at http://emba.anadolu.edu.tr/index_eng.php.

Level of the programme
The executive MBA (e-MBA) programme is a graduate level (Masters) business degree programme.

Size of the programme
Regarding the size of the programme, students should complete a total of 48 credits during this degree programme. ECTS is not applied to the programme. There are currently less than 10 students in the e-MBA programme and all are Turkish. The staff in the programme could enhance collaboration capabilities and extend organizational know-how by offering new degree programmes and planning research initiatives as well.

The partnership
Among the role of universities in the partnership, the Graduate School of Social Sciences at Anadolu University serves as the coordinator of the programme whereas Empire State College, State University of New York is the partner university. There has not been any other partnership so far. The profile of the students indicates that almost all of them work full-time in companies while attending the programme.

Teaching language
The courses are taught entirely in English.

Degree/diploma awarded
The programme is a Joint double-degree programme. Students who successfully satisfy the requirements for the Anadolu University-Empire State College, State University of New York e-MBA earn both an MBA diploma approved by the Turkish Council of Higher Education and provided by Anadolu University Graduate School of Social Sciences, and a second MBA degree granted by the Empire State College, State University of New York.

Financial support

The students' financial aspects (fee payment) are managed by centralized services in one partner. Because the program is designed for students living in Turkey, all financial aspects are handled by Anadolu University. Students pay their tuitions to Anadolu University and Anadolu University transfers the amount allocated for Empire State College.

1.   Description of the collaborative programme

Empire State College initiated the first contact with the Turkish Council of Higher Education for possible partnerships in developing joint programs. The Turkish Council of Higher Education then asked for voluntary participants among Turkish universities. Anadolu University declared its intention for an MBA program and the partnership started from that point. This e-MBA program is the only Graduate level (Masters) joint programme with the Empire State College in Turkey.

The Anadolu University – Empire State College, State University of New York (SUNY), dual degree e-MBA program is designed for working professionals. This innovative degree programme provides students who are not free to attend classes regularly with an opportunity to earn both an Anadolu University and an Empire State College e-MBA degree through a mix of interactive, online courses and periodic residencies in Turkey. Students attend up to six residencies of three to four days during the duration of their programme. All other work may be conducted from home or work, by accessing the World Wide Web.

The total programme consists of 15 courses, eight taught online by Anadolu University faculty and seven taught with a mix of online and residency activities by faculty from the Empire State College, SUNY. The curriculum consists of required and elective courses. All courses are highly interactive, involving regular online participation by both faculty and students. Professors in this program utilize a wide and innovative mix of textbooks, problems, tests, research and discussion papers, online discussions and debates, case analyses, role playing and skill building in their courses. In fact, the dual degree programme is modeled after Empire State College's competency-based MBA, teaching both the functional subject matter of the MBA as well as the competencies required to put that functional knowledge to effective use.

The seven courses taught by Empire State College faculty will combine students from the dual degree programme with students from Empire State College's North American MBA programme for the online components of the courses, so there will be many opportunities to share ideas and experiences with students in the U.S. program.

As mentioned previously, Anadolu-Empire State College, SUNY e-MBA program consists of courses delivered in English. In order to earn a dual diploma, it is required to be successful in the courses offered by each institution. It is compulsory to take 48 credits for graduation. Students may register 2 to 4 courses per semester. The content of the courses are designed to establish a theoretical and practical infrastructure with their contemporary structure.

Course	Credits	Institution
1st Semester		
Executive Development & Assessment	3	ESC
Scanning the Business Environment	3	ESC
Human Systems & Behavior	3	ESC
Managerial Economics	5	AU

Course	Credits	Institution
2nd Semester		
Managerial Decision Making	3	ESC
High Performance Management	3	ESC
Marketing Strategies	4	AU

Course	Credits	Institution
3rd Semester		
Managerial Reasoning	3	ESC
Strategic Assessment & Executive Choice	3	ESC
Operations Management	5	AU

Course	Credits	Institution
4th Semester		
Strategic Executive Leadership	3	ESC
Accounting & Finance	6	AU
Management Information Systems	4	AU

Mobility

The programme includes physical mobility of students and the average number of mobilities per year is less than 5. The courses in the e-MBA programme also include virtual mobility of students and the average number of mobilities per year is less than 20.

However, the programme does not require physical mobility of teachers whereas the non-teaching staff participate coordination meetings during semesters.

Specifically, the programme covers a mix of interactive, online courses and periodic residencies in Turkey. Students attend up to five residencies of three to four days during the duration of their program. Additionally, they should take final exams in a face to face mode. All other activities in this programme including problems, tests, research and discussion papers, online discussions and debates, case analyses, role playing and skill building are carried out in an online mode.

The administrative staff regularly meets once a year to discuss the status of the programme and other managerial issues. The university financial funding is available for the mobility of administrative staff.

2.   Admission and selection for our collaborative programme

The cooperation is structured based on Joint management in all aspects of the program including the curriculum design, student selection, and administrative tasks. In other words, all processes are designed jointly and decisions are taken after consultations between partners. However, all the technical and financial aspects are managed by Anadolu University in Turkey.

Admission Prerequisites

Successful e-MBA candidates come from a wide range of professional and academic backgrounds, but they have one thing in common: a desire to succeed and a "track record" that shows evidence of their ability to do so. Characteristics of successful candidates include a strong academic record, international awareness, strong interpersonal skills and self-awareness, and the potential to succeed as a leader and manager in a competitive business environment. Specifically the following application criteria are applied:

- A bachelor's degree in any field of study from a ministry-recognized college or university,
- Professional or managerial experience desired.
- Minimum TOEFL score of 530 (paper based), 197 (computer based) or 71 (Internet based testing),
- Candidates who are awaiting their score reports or who are going to take the exam, should provide their score reports due to the end of the 1st semester. All the program-related rights of the applicants who do not send their score reports until the end of the first semester are suspended,
- Candidates should hold min. 60 points from the Selection Examination for Graduate Studies and Academic Personnel (ALES) within the last 2 (two) years, or 650 points from GRE or 470 from GMAT exams.

3.   The main incentives for our teaching staff to organize/participate in this collaborative programme

As described earlier, all the partners in the programme already knew each other before the creation of the curriculum. Partners held joint meetings in both countries and many teleconference sessions for designing the curriculum. These efforts for shaping the curriculum took about one year before launching the programme.

Even though a formal need analysis was not completed to create such a partnership, in one year before the programme started, partners utilized their know-how and experiences in making key decisions like the list of courses, content of the courses, a stronger partnership to offer a particular course etc. Therefore, informal need analysis was managed in many partner meetings during the whole year before the programme started.

Basically, there are several important motivators regarding building such a partnership and offering a programme, including responding to the demand of students for an international experience, increasing the "employability" of the course on the labour market, making an attractive international programme together with partners abroad, raising the quality by complementary content, and raising the quality by complementary pedagogical approaches during the programme.

4.   Online support of the collaborative programme and related mobility

The programme offers online and asynchronous support. The didactic tools are: Assignments, e-mail, a forum for class discussions, content modules as the main information delivery tool, and PowerPoint slides of the courses. The support services are categorized as program management, admission and payment, information systems, e-MBA desk info, books and materials. The related contact information is provided at the program website. The orientation is organized as face-to-face sessions. It serves to introduce students to the program faculty, program requirements and the courses they will be taking, the materials that will be used, the online environment, and which learning that environment entails.

Orientations provide students with an opportunity to meet program instructors, to raise questions about course expectations, and to start to discuss issues and topics that will engage their attention over the course of the study. Orientations are usually scheduled for the end of the week and the weekend. Information concerning the orientation schedule – what students can expect at the orientation, what they need to bring to the orientation, what readings (if any) they should do before the orientation, are posted on the e-MBA site. Orientations are held at the Anadolu University facility in Istanbul, Turkey, and involve faculty from Anadolu University and from Empire State College.

5.   Added value of the programme

Added value of the partner collaboration in this programme for students.
The joint program offers an intercultural learning experience in another language (English) and communication with tutors and peers in courses and projects (assignments). They can access Empire State's learning materials, staff and library resources and learn complementary subjects taught at SUNY. This increases the reputation of the program and affects the employability and career prospects of the students/graduates.

Added value of the partner collaboration of this collaborative programme for the institution
The subject collaboration has increased the range of the courses, learning materials and learning environments provided by Anadolu University. It has been an experience for the students and the academic/administrative staff as well. The programme is not more cost-effective through this collaboration however it has become attractive due to the internationally recognized status of SUNY's programme. This "boutique" program and collaboration has been a prestigious experience in this sense.

6. Sharing within the networked curriculum
The total programme consists of 15 courses, eight taught online by Anadolu University faculty and seven taught with a mix of online and residency activities by faculty from the Empire State College, SUNY. The curriculum consists of required and elective courses. All courses are highly interactive, involving regular online participation by both faculty and students. Professors in this program utilize a wide and innovative mix of textbooks, problems, tests, research and discussion papers, online discussions and debates, case analyses, role playing and skill building in their courses. The dual degree program is modeled after Empire State College's competency-based MBA, teaching both the functional subject matter of the MBA as well as the competencies required to put that functional knowledge to effective

use. The seven courses taught by Empire State College faculty combine students from the dual degree program with students from Empire State College's North American MBA program for the online components of the courses, so there are many opportunities to share ideas and experiences with students in the U.S. program.

The learning tools are:

- A forum: It allows students to respond required discussion threads generated by the instructor via LMS. This is a requirement for courses. It also increases the level of interaction among students.
- Chat: It is mainly used for interaction among students. In addition, some instructors utilize it as real-time virtual office hours to give feedback to students. It is essential for the creation of a community atmosphere among students.
- An assignment Drop Box: Students upload their required assignments into this area. Instructors reach the students assignments through this tool. It is essential to record and store student work in the long run.
- A HTML Interface: It is used for embedding tools such as figures and tables into the LMS and to visually support the content.

Midterm exams are managed fully at distance. However, final exams require student to come to Eskisehir (Anadolu University) to take the exam in presence. Independent grading scales are used for each course depending on the teaching professor.

8.   Open University of Cyprus (OUC)

8.1   Educational Leadership

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Website: [Educational Leadership](#)

Level of the programme:
- Master and Ph.D.

Size of the programme:
Following a Memorandum of Collaboration signed between the Open University of Cyprus and the Saint Louis University of the United States of America, a joint postgraduate programme in Educational Leadership has been designed, to be jointly offered by the two partner universities. First the two universities will offer a joint Master degree and the offering of a doctoral programme will follow in subsequent academic years.

Given that the Open University of Cyprus as a European university is promoting the Bologna Process, to facilitate mobility and ensure that periods of study abroad are recognised, the joint Master degree was designed on the basis of ECTS (European Credit Transfer and Accumulation System) credits. The two partners reflected the total workload required to achieve the objectives of the Master programme, which are specified in terms of learning outcomes, knowledge, skills and competences expected to be acquired by students, in **120 ECTS**. Validating the range of learning achievements (academic and other) in ECTS facilitates both mobility and academic recognition.

Students enroll in the Master programme according to a cohort model. The joint MA in Educational Leadership will be offered during the academic year 2012/13. During its first year of operation, a **minimum of 13 students must be met to establish a student cohort**.

The Partnership
To promote international cooperation and to enhance educational opportunities for students in Cyprus, Greece and the neighbouring region, the **Saint Louis University (SLU)** of the United States of America in collaboration with the **Open University of Cyprus (OUC)**, established an agreement to jointly offer academic programs in Cyprus to qualified students from Cyprus and abroad.

The design and promotion of the joint degree MA in Educational Leadership was mutually carried out by the **two partner universities**. The cooperation is structured on a joint management basis, based on sharing expertise and investing staff time and resources. To effectively administer the joint degree, a Cyprus Academic Programs Director is appointed by the SLU, while the Open University of Cyprus has appointed its own Focal Academic Director.

The two partner universities, under their binding agreement, are delivering blended programmes, including both distance and face-to-face teaching methodologies, mainly within Cyprus. Depending on the student demographics and preferences, it is possible for students to enroll from neighbouring countries such as Greece, Saudi Arabia, Lebanon, Egypt, the Balkans etc.

Teaching language
The language of instruction of the MA in Educational Leadership is **English**. To ensure adequate command of the teaching language, admission criteria include the proficiency in English, as determined by standardized tests such as the GCE 'O' Level, the IGCSE, the TOEFL or IELTS.

Degree/diploma awarded
Joint degrees (degree programmes involving periods of study at multiple institutions) provide innovative examples of inter-university cooperation and can be seen as pillars of future European higher education development.

The MA in Educational Leadership is a programme, jointly developed and recognized by the Open University of Cyprus and the Saint Louis University of the US. Students enrolled in the joint degree are considered students of both the Open University of Cyprus and the Saint Louis University. Upon successful completion of the programme, students receive a degree, which is jointly conferred by the two partner universities.

Financial support
The design and establishment of the joint degree has not benefited of any national or international grant.

1.   **Description of the collaborative programme**
The _**mission**_ of the Master programme «MA in Educational Leadership», jointly offered by the Open University of Cyprus and the Saint Louis University is:

- To introduce students to best practices in educational leadership.
- To equip program graduates with relevant knowledge and skills required for them to assume a leading role in school administration at any level (Primary, Secondary or Tertiary).

- To support research and provide solutions in challenges that administrators come across, on a day to day basis.

The _structure_ of the joint master degree is the following:

The award of the joint Master degree requires enrolment and the successful completion of 11 modules, as listed below, that are offered on a semester basis, as well as successful passing the final exit exam. Upon successful completion of all modules' final exams, each student will be eligible for acquiring the Master degree in Educational Leadership, awarded jointly by OUC and SLU.

First Year Modules:

- Methods in Educational Research
- Quantitative Research
- Qualitative Research Methods
- Foundations of Educational Administration
- Managing Curriculum and Instructional Process

Second Year Modules:

- The Principalship (I)
- The Principalship (II)
- Evaluation of Educational Programs
- The Supervisory Process
- Professional Seminar in Management of Change and Strategic Planning in Education
- School Effectiveness & School Improvement

The joint Master degree is offered on the basis of the _blended learning methodology_, given that the Open University of Cyprus is a dedicated distance education university. Blended learning entails both distance teaching and face-to-face tutorials. In distance education, members of the Faculty and tutors provide high quality teaching, making use of technological means of synchronous and asynchronous communication for student support and monitoring of student progress.

The MA programme includes both real and virtual mobility as far as students are concerned. Physical mobility entails the participation of students to the final exams, which are carried out at designated examination centers, as well as the possibility for practical training, with the purpose of integrating students into the system of their most probable future profession (mostly public education). The Open University of Cyprus is however currently in the process of researching various solutions for online examinations. Face-to-face group tutorials are also carried out four to five times through the academic year. Although participation to the tutorials is not mandatory, students find tutorials academically

challenging, rigorous and rewarding, since their aim is to help students identify the important features of course materials and to better understand the curriculum and the learning outcomes.

Virtual mobility is supported via the OUC's e-Learning platform, the so-called *eClass*, and the SLU's *Blackboard*. Utilizing the synchronous and asynchronous tools available on these two e-learning platforms, students can virtually attend lectures provided over the Internet, meet with their Tutors online, contact faculty members via synchronous (e.g. instant messaging, video chat, etc.) and asynchronous (e.g. email, forum, etc.) communication tools, access relevant information on the master degree and the various modules, as well as the specially designed digital educational materials. Students can thus collaborate with fellow students, tutors and other experts.

Seven of the eleven modules in total are delivered by the SLU, as required by the National Council for Accreditation of Teacher Education (NCATE) accreditation and the remaining four modules are delivered by the OUC's Educational Studies faculty members. During instructional periods, faculty members from the Department of Educational Studies of the Saint Louis University will be visiting Cyprus for the purposes of delivering the group tutorials. Real mobility of teachers might thus prove necessary, but in small numbers (less than 5 per year).

2.   Admission and selection for our collaborative programme

The role and responsibilities of the two partner universities are clearly stipulated on a detailed Memorandum of Collaboration. Administrative aspects, such as admission and enrollment, are centrally managed by the Open University of Cyprus. The OUC is responsible for the application process and for the recruitment admission of students to the joint master degree, in accordance with the combined admission standards and policies of both the Open University of Cyprus and the Saint Louis University. It is understood that if a prospective student fails to meet the entry criteria of one of the two partner universities, then this student cannot be accepted for enrollment under the joint degree offering.

The entry requirements for enrolment to the MA in Educational Leadership, jointly offered by the Open University of Cyprus and the Saint Louis University, are the following:

- Bachelor degree from a recognized higher educational Institution (compulsory).
- Relevant work experience to the graduate course applying.
- Sound command of the English language (language of instruction).

The Open University of Cyprus is also responsible for the collection of students' tuition fees. To enroll to the joint Master programme, students must pay the corresponding tuition and other fees directly to the OUC. A dedicated joint degree specific manual for administration and finance of the OUC/SLU programmes was drafted and agreed upon between the two partner institutions, in order to avoid conflict with the own administration and finance procedures of each institution. Based on this arrangement, the OUC, which is responsible for the tuition fees collection, transfers to Saint Louis University its share of the collected tuition directly within a time period from the start of the fall

semester of each academic year. The two partner universities maintain accurate records of all payments and financial transactions made between them.

The benefits from handling the admission procedure by one of the partners are a better efficiency in running the joint programme and less bureaucracy, especially since the two partner universities are geographically distant.

3.   The main incentives for our teaching staff to organize/participate in this collaborative programme

The main incentives for the faculty members of the two universities to design and offer the MA in Educational Leadership as a joint degree include the following:

- Recruitment of international students

Joint degree programmes are of great potential interest to **students from outside Europe** particularly at Master and doctorate levels as is the case for the Educational Leadership programme. Therefore, by properly implementing the joint degree, the two joint universities can use this programme to position themselves strategically in the international, higher education market and attract EU students (as far as the SLU is concerned) and foreign students (as far as the OUC is concerned). Faculty members of both partner universities have thus the opportunity to interact with foreign students, engage in intercultural activities and improve their teaching skills. Moreover, students' recruitment for the MA joint degree can further lead to subsequent collaborations in terms of research projects and prospective doctorate students' recruitment.

- Responding to students' demand for an international experience and improving graduates' "employability" on the international labour market

Students that participate in a joint degree offered by a Cypriot and an American university, experience the intellectual stimulation of viewing their chosen subject through different perspectives, developing new learning methods and ways of thinking. Moreover, joint programmes place students in situations which demand for flexibility, openness to diversity, and creative approaches to learning. Thus students who experience high quality joint programmes enhance their chances of becoming internationally employable graduates. Therefore, the joint master degree allows partner universities to respond to the ever growing students' demand for international curricula and exposure, as well as to improve their graduates' employability on the highly competitive international labour market.

- Providing an attractive international programme

The networked curriculum of the MA in Educational Leadership was developed jointly by the two partner institutions, one partner working on the educational material of 7 semester courses and the

other on 4 semester courses. The partners decided to start such an experience so that the full program of Educational Studies could be offered in the English language, as well as in the original Greek language. This dual promotion of programs of studies in two different languages is expected to contribute highly to the transformation of Cyprus into a peripheral educational and research center. The aim is also to promote the English language programs to the neighbouring Middle Eastern countries. An additional benefit of the joint degree offered by the Open University of Cyprus and the Saint Louis University is the overall promotion of lifelong learning opportunities, a currently strong priority of the European Union.

- Enhancing quality by networked curricula and complementary pedagogical approaches

The design and offering of a joint degree in Educational Leadership allows the two partner institutions to combine their strengths in a collective endeavor in which one unified programme becomes more valuable than the sum of its parts. Thus the proposed joint degree provides an ideal platform for faculty development opportunities and program sharing mechanisms. In addition to opportunities for developing and practicing languages and cultural skills, joint programmes also offer the potential to develop more internationalized, multi-dimensional curricula.

The quality of the respective Educational Studies programmes of the two partner institutions is also enhanced, since faculty members are encouraged to enhance particular elements of their academic programmes since curricula are open to scrutiny from partner colleagues from abroad. In the same way, faculty members have the benefit of exposing themselves to various teaching approaches, as well as scientific approaches to their subject areas, through more sustained contact with partner colleagues. In doing so, they may also explore how different methods of teaching and learning in their areas of specialization can complement and enrich each other. The faculty of the OUC engaged in the joint degree offering will be considered an adjunct faculty of the SLU and vice versa.

- Reinforming collaborations and research links

Developing and sustaining a joint Master programme requires a considerable degree of trust that can usefully be found in relationships with established partners. Long-term benefits of joint degrees include increased business, worldwide reputation, cultural and research links. The teaching staff of the two partner universities that are engaged in the joint degree offerings are thus presented with opportunities for professional development outside their home country. Within the joint degree network, faculty members can further establish links that build a firm foundation for further international cooperation, including but not only limited to transnational research. Faculty members benefit from the expansion of their research opportunities and ability to seek alternative forms of grants.

4.   Online support of the collaborative programme and related mobility
Delivery of the joint degree MA in Educational Leadership will be under the blended or hybrid model with electronic communication and on site tutorials. 7 modules are delivered by the SLU, as required by

NCATE accreditation, and 4 courses are delivered by the OUC's academic personnel. SLU modules are delivered in a similar manner to SLU courses offered at the home campus at SLU Missouri, under the blended offering and reciprocally OUC modules are delivered the same.

There are 3 main didactic tools used in the joint degree program, with English being the only language supported by the learning environment (not the contents):

- *OUC's electronic platform (eClass)*:
The OUC's virtual learning environment, i.e. eClass, offers an easy to use and secure platform to build the programme's academic community by allowing for synchronous (via online lectures, chat) and asynchronous (via wikis, blogs) interaction between tutors and students and between students and their peers. eClass is the main tool for the interaction among students and tutors and for students themselves, for all important issues related to studies, such as study materials, discussion groups, self-evaluation problems and for all academic and administrative processes. Written assignments are uploaded on eClass, thus Tutors can provide their grades, comments and feedback online.

- *Elluminate Live!:*
This synchronous communication tool is incorporated in the OUC's eClass learning platform. It is used for synchronous interaction and follow-up on active discussions by distance, the live coverage of seminars, conferences, lectures and other events.

- *SLU's Blackboard:*
SLU Blackboard and SLU e-Library facilities become available to all students enrolled in the joint MA programme upon registration. Blackboard application supports faculty and student users and provides access to many great tools to support SLU's educational mission.

5. **Added value of the programme**

Added value of the partner collaboration in this programme <u>for students</u>.
The joint degree programme offered by the Open University of Cyprus and the Saint Louis University offers a series of interrelated benefits for students, academic staff and the two partner universities alike. For students, the added value of joining the joint MA degree in Educational Leadership, offered by the Open University of Cyprus and the Saint Louis University, includes the following:

- *Diversity and more educational options*

In addition to opportunities for developing and practicing language and cultural skills, the joint programme offers students the opportunity to engage in more internationalized and multi-dimensional curricula. Perhaps the most widely promoted benefit of a joint degree is receiving an interdisciplinary education that will both diversify and specialize students' training and knowledge.

Students have the opportunity to engage in an intercultural experience with fellow colleagues from the EU as well as from third countries and share experiences, thoughts and ideas. Since the joint Master degree is offered in English, prospective students benefit from enhancing their command of the English language.

- *Enhanced international employability*

Current research shows that recruiters in the today's competitive marketplace see joint degrees as a plus. Students enrolled in and successfully completing the MA in Educational Leadership will have the opportunity to develop not only a broadened knowledge base, but also a specific skill set much sought in the international labour market.

- *International cooperation*

Students of the joint degree also have the added value of studying a networked curriculum that is being developed from renowned academics of the two partner institutions, thus engaging with diverse teaching methods and ways of thinking. In the same way, students have the prospect to broaden their network and opportunities and interact with professors and colleagues who have diverse life experiences and goals. Moreover, international cooperation involves group work and mixed tutorials. Elements that provide added value to the joint degree programme.

- *Access to infrastructure and virtual learning environments*

Students enrolled in the joint degree between the Open University of Cyprus and the Saint Louis University have the opportunity to benefit greatly by the access to specialized infrastructure made available to them through the partner university collaborating with their own university. For example, students from abroad, attending the course, can learn to efficiently utilize the virtual environment of the OUC's electronic platform, thus continuing to work and study in a virtual learning environment at the same time.

- *International recognized title*

The degree awarded by the master programme in Educational Leadership, jointly offered by the Open University of Cyprus and the Saint Louis University, is credited in ECTS and thus constitutes a world widely recognized master title, providing the opportunity to its holders to compete in the international labour market. In fact it is a common sense that the issue of an internationally accredited title is considered to be a very important one in the process of a high school student entering into a university.

- *Joint research projects*

Throughout the common operation of the joint degree programme in the subject of Educational Leadership, the corresponding faculty members of the two partner universities also develop the opportunity to collaborate in some common research projects, funded either by any of the two partner universities, or by the European Union's framework programmes.

Added value of the partner collaboration of this collaborative programme <u>for the partner institutions</u>. With joint degrees, partner institutions are able to combine their strengths in a collective endeavor to establish and offer new programmes, with multiple benefits. The added value of the partnership between the Open University of Cyprus and the Saint Louis University for the offering of the joint Master degree in Educational Leadership is evident, mainly, in the following elements:

- *Enhance international cooperation*

Joint degrees are an important part of international cooperation in higher education. The added value of partner collaboration in this joint degree for the Open University of Cyprus and the Saint Louis University is thus enhanced collaboration opportunities, both in terms of teaching and research links. With respect to common research projects, these are still under development at this stage. Another advantage is the additional dimensions introduced into the program, based on the new learning activities introduced.

- *Cost-effectiveness*

Certainly, through the design and offering of any joint degree program, the corresponding program is more cost effective than if the two partner universities offer it on an individual basis. This is the case for the Educational Leadership master program, jointly offered by the Open University of Cyprus and the Saint Louis University, where one University (Saint Louis) contributes highly into the design and structure of the program and the other (Open University) contributes with the electronic platform for delivering the educational material to the students and with all the administrative aspects.

- *Enhance range of academic programmes offering*

As a result of this joint venture, the Open University of Cyprus is able to offer a new postgraduate programme in the English language, with limited cost, since the programme was jointly developed with the Saint Louis University. In the case the OUC would want to offer its own MA in Educational Studies in the English language from scratch, the cost, both financial and with respect to the administrative burden would be much higher. Offering programmes in the English language will greatly contribute to the international presence of the Open University of Cyprus, as well as it is expected to highly contribute to the aims of the Cyprus government for the establishment of the island as a regional center for education and research.

6.   Sharing within the networked curriculum

The collaboration of the Open University of Cyprus and the Saint Louis University resulted from the existing network of the faculty members of the Educational Studies programme of the OUC and the Department of Educational Studies of the SLU. The quality of the partners was an important factor, since both are specialized in the scientific area of educational studies and educational leadership and policy in particular.

- Course content and educational materials:

The content describing the course material of the joint program in Educational Leadership was jointly developed by the corresponding faculty members of the two partner universities in charge. The whole program deals with the qualities, features and characteristics of the teachers-leaders in charge of autonomous or semi-autonomous school units, and the consequences in the everyday operational features of the unit. The joint master degree's curriculum consists of 120 ECTS of advanced studies (11 modules in total). Seven of the eleven modules were designed by the Saint Louis University and the remaining four by the Open University of Cyprus. In developing the joint degree's structure, both partners considered the intended learning outcomes of the academic programme. The academic content and methodology were thus based on the learning outcomes, ensuring that the curriculum is in line with international standards of the specific scientific domain. The educational materials for the joint master degree are available by both universities, the majority being in printed and electronic books. Supporting bibliography and scientific articles will be available to students.

The program contents have been discussed analytically, chapter by chapter, where a comparison took place of the existing programs in Greek and English language. The scope of the collaboration program (in English) has been well identified and the contents have been modified accordingly so that they match with the market and society needs in the field of education and with the potential students in Cyprus and the neighbouring countries.

- Blended Learning Methodology and Learning Environment:

The joint program is designed and offered based on a mixed methodology of distance teaching. Students study through the university's electronic platform, while five group tutorials will take place throughout each academic year. The OUC's eClass and the SLU's Blackboard are complete and continuously evolving e-learning management systems, which support all phases of the educational process. Students use the electronic platforms to access electronic content and study materials; organize their study calendars, access information on assignments and submission of papers to get feedback on their programmes. Moreover, the e-learning platforms offer a range of communication tools, synchronous and asynchronous, that facilitate group and individual work, as well as interaction with tutors and virtual lectures.

- Mobility-related issues:

The joint program is designed and offered based on a mixed methodology of distance teaching (through an electronic platform providing all the material to the students), as well as some aspects of conventional methodology – i.e. the group tutorials. There are not so many seminars, workshops and summer schools taking place in the partner universities, so student mobility will be limited. With regards to academic mobility, faculty members from the two partner institutions will mainly collaborate online, although some mobility will take place especially for group tutorials and ad hoc meetings to discuss the progress of the joint degree.

- Access to libraries and other resources:

Students enrolled in the joint degree program can have simultaneous access to the libraries, research reports, databases, laboratories and equipment of both universities. SLU Blackboard and SLU e-library facilities will become available to the student upon registration and the first course will include an introduction on how students could access Blackboard and e-library SLU facilities. The same applies for the OUC's eClass and e-Library facilities. For the purposes of the group tutorials, the two universities will provide facilities for instruction and student support in locations near to the students based on cohort formation.

9.   Universidade Aberta (PT)

9.1   Doctor's Degree in Digital Media Arts

Authors: Sandra Caeiro, Alda Pereira, Ana Paula Teixeira Martinho, Lina Morgado

website: http://dmad.dcet.uab.pt
Level of the programme

- Doctoral (PhD)

Size of the programme
The doctor's degree in digital media arts is an post graduate academic programme, designed according the Bologna Process. It delivers 180 ECTS in 3 years, taught in an b-learning for a maximum of 40 students per year.

The Partnership
The programme is organized and coordinated by Universidade Aberta and Universidade do Algarve in Portugal. The coordinating role of the programme is assumed alternately by each university partner on a year basis. The first edition of the doctoral program (2012) will be coordinated by Universidade Aberta.
The non-university partners are: Fundação da Bienal de Arte de Cerveira; Teatro Municipal de Faro; Cineclube de Faro; Instituto - Centro de Computação Gráfica; Associação de Professores de Expressão e Comunicação Visual; Computer Arts Society; InSEA - International Society for Education Through Art and Artech-International.

Teaching language
The official language of the programme is Portuguese, so this is the language adopted for the production of the didactic materials and for the evaluation. Nevertheless Spanish and English can also be used in written materials and teaching.

Degree/diploma awarded
The programme is a joint degree by Universidade Aberta and Universidade of Algarve with one diploma, awarded by institutions on a single document.

Financial support
The program hasn't any kind of financial support.

1.   Description of the collaborative programme
This course aims at training professionals in digital media arts for the more diverse working areas, be it in research, education and artistic, technological and communicational development, with solid skills in computer technologies, communication sciences and artistic and intercultural intervention; capable of assuming the leadership of experimental/research-action projects of artistic and intercultural

intervention, either individual or collective, covering the development of new applications, products and aesthetic narratives.

These professionals will assume duties as managers of research projects, in education and of development and creation of new highly innovative aesthetics discourses that strongly exploit the informative and sensory expressiveness of multimedia contents, technological interfaces and interaction, aiming at constructing interventional artifacts for the creative industry, in the artistic and cultural expression, education and entertaining.

The doctoral program has a duration of 3 years, for full time students, and 5 years for partial time students. The first year embraces a set of compulsory learning units in the scientific areas of information and communication technologies, communication sciences and artistic expressions. These set of units constitute an advanced course in digital media arts, corresponding to 60 ECTS, divided in two semesters of 30 ECTS each. The program's second and third years are reserved for the preparation of the doctoral thesis corresponding to 120 ECTS. The doctoral program's three years of duration correspond to a total effort of 180 credits ECTS which allow the access to the doctoral diploma in digital media arts.

The doctoral course will run primarily in online open distance learning (ODL) mode using an e-learning platform, which includes virtual laboratory facilities, and applying the virtual pedagogical model of UAb. However, there are planned some classroom sessions of intensive laboratorial experimentation up to two weeks per semester, especially considering here the first year of the course (curricular part).

During the two years of preparation of the doctoral thesis it is planned a week per semester for presentation /demonstration of intermediate results.

The face-to-face teaching sessions will be organized in the premises of the Open University (Portugal) (headquarters, external delegations and the several Local Learning Centers distributed along the country) and the University of Algarve.

The programme provides intermittent mobility periods of up to two weeks per semester of internships, atelier/workshops that are compulsory. The range of study points in mobility are 30 ECTS. Staff (4-5 teachers) have to come to the host university (coordinating one) to teach / supervise student work, atelier and workshops up to two weeks each semester.

2.   **Admission and selection for our collaborative programme**

Candidates that may apply for the doctoral course are :
   a) holders of a master degree (or equivalent qualification) in visual arts, performing arts, arts education, design, music, literature, computer science and information technologies, multimedia, communication sciences, or other related areas;
   b) holders of an undergraduate degree (or equivalent qualification) in visual arts, performing arts, arts education, design, music, literature, computer science and information technologies, multimedia, communication sciences, among others, with a relevant professional or academic curriculum, either scientific or artistic, that is recognized by the competent organ as evidence of the candidate's capacity to satisfactorily undertake the doctoral course;
   c) on an exceptional basis, holders of an outstanding professional or academic curriculum, either scientific or artistic, that is recognized by the competent organ as evidence of the candidate's capacity to satisfactorily undertake the doctoral course.

The Admission and selection process is organised by a Coordinating Board – leaded by the Doctoral Program Director and including staff members from both university partners.

3.   The main incentives for our teaching staff to organize/participate in this collaborative programme

The main incentives for the teaching staff to organize/participate in this collaborative programme is recruiting international students for subsequent collaboration (research, PhD,…), reinforcing research links and reputation building.

4.   Online support of the collaborative programme and related mobility

This course is delivered primarily online through the course e-learning platform where all the support his given. The mobility in terms of internships are organized by the hosting partner university which provides all assistance needed for the students residency and living during the mobility.

5.   Added value of the programme

This course adopts an approach that is intended to be balanced with respect to the areas of technology and of art and communication, combined with the art-intervention dimension in the domains of communication, education, culture and entertainment, which is only comparable to other 3 - 4 doctoral courses offered in the European space. Moreover, by functioning primarily in online distance education mode, this doctorate adopts a pioneering role worldwide.

Added value of the partner collaboration in this programme *for your students*.

The added value of the partner collaboration in this programme for the students is assured by the following aspects:

- To participate in a doctoral program that is delivered primarily in online distance education mode. - To participate in a virtual collaboration network embracing experts, professors and stakeholders of the field of study;

- The International cooperation with other students (in projects, seminars, courses, thesis work; internships companies);

- The International recognized title of the programme;

- The Learning complementary subjects for different competence profiles (not taught at the home university), related to complementary research and innovation.

Added value of the partner collaboration of this collaborative programme *for your institution*

The added value of the partner collaboration of this collaborative programme for the institutions of the consortium and the partners is assured by the fact that partnership offers an additional multidisciplinary dimension to the programme.

6.   Sharing within the networked curriculum

The networked curriculum is assured through different activities:

- Courses, course material, content;

- Staff (through (joint) lectures, projects, seminars, workshops, thesis, summer schools, projects,…);

- Students (through mobility or (joint)lectures, projects, seminars, workshops, thesis, summer schools, projects,…).

9.2   El Gate - University International Department Management

Author: Sandra Caeiro, Alda Pereira, Ana Paula Teixeira Martinho, Lina Morgado

website: http://www.elgate.eu/pt.html

Level of the programme

- Vocational Program

Size of the programme

The El Gate programme delivers 4 ECTS for about 50 to 75 students.

The Partnership

The programme is organized and coordinated by Università Telematia Guglielmo Marconi (Italy) and the partner universities are Universidade do Vale do Rio dos Sinos (Brazil), Universidade Aberta (Portugal), Universidad del Salvador (Argentina), Fundación Uvirtual (Bolívia) and Universidad Estatal a Distancia (Costa Rica). There isn't any non-university partners

Teaching language

The official languages of the programme are Portuguese, Spanish and English.

Degree/diploma awarded

A certificate is awarded to the students who finish the course.

Financial support

The programm was financed by the European Commission through the ALFA III Programme.

1.   Description of the collaborative programme

The project addresses the problematic of university internationalization working on the priorities of the reorganisation of cooperation processes inside Latin American universities and its International Departments (ID) capacity building. The main target group of the action is Latin American university managers in charge of identifying and implementing cooperation activities.

In Europe several programmes were established both at national and international levels directed at the development of the international dimension of higher education. The European Commission supports education in Member States in a number of ways, managing programmes to stimulate educational co-operation and mobility within the Community and with third countries. Several Member States have reinforce the international dimension of their national programmes, as United Kingdom thought the

British Council, France thought Edufrance Agency and Germany thought DAAD, the German Academic Exchange Service.

In addition to changes in the design of education programmes and new possibilities offered for study in other Member States, many universities have set up or reinforced their offices for international relations.

More, some European universities are experiencing new models of integration in local systems and cooperation at a global level, acting as a gate between local and international dimensions, linking local actors to the knowledge produced by the world community of teachers and researchers. The implementation of those models requires developing new functions in University structures and incorporating representatives of the non-academic world within universities' management and governance structures.

Using the European experience as a reference, the Course promotes the capacities of Latin American universities in codifying and surveying the evolution of successful international cooperation models, supporting their own International Department managers in developing and implementing a dedicated model. A formalised cooperation model, recognised within the university, namely by its organization charter, which facilitates the role of ID managers in dealing with the confusion and the inefficiency of a serious of multi-person and a multi-line cooperation processes widespread among universities. A strategic model for internationalization that puts IDs as the focal points and guidance centers for cooperation activities inside the university. In this way the Course is designed to contribute to strengthening management and governance of Latin American universities. Moreover, it is relevant for the EU education policy, contributing in the straightness of the multilateral dimension of higher education national systems.

The specific objective of the Course is to improve the capacities of International Department managers of Latin American universities to design and implement a more effectiveness and efficiency university cooperation model, recognized and formalized into the university organization chart, integrated into the university development strategic lines, and able to find and to put in action resources (human, technologic and financial) to run cooperation activities.

The network implemented 6 Working Packages (WP) respectively committed to:

WP 1 – the analysis and codification of university cooperation models and the relate skills;

WP 2 - the development of the course and setting up of the e-learning platform;

WP 3 - the delivery of the course;

WP 4 - the design, developing and management of the Community of Practices including the launch of the study visits' programme;

WP 5 - the implementation development of the communication tools and of the dissemination strategies;

WP 6 - the management, monitoring and evaluation of the project.

It were attributed to the students the possibility to carry a study visit each to an ID of a different LA university with good experience in internationalization. Also, at the end of the course, students had also the opportunity to present their cases studies at two international events. There were no staff mobility.

2. Admission and selection for our collaborative programme

Admission was made to all students involved in related programmes in the partnership. The Admission and selection were jointly organised by Universidade do Vale do Rio dos Sinos (Brazil) and Universidad del Salvador (Argentina).

3.   The main incentives for our teaching staff to organize/participate in this collaborative programme

The main incentives for the teaching staff to organize/participate in this collaborative programme were: i) responding to the demand of students for an international experience; ii) increasing the "employability" of the course on the labour market; iii) Making an attractive international programme together with partners abroad; iv) raising the quality by complementary content; v) raising the quality by complementary pedagogical approaches; vi) reinforcing research links and vii) reputation building.

4.   Online support of the collaborative programme and related mobility

Using a Learning Management System (e-learning platform).

5.   Added value of the programme

Added value of the partner collaboration in this programme *for your students*.

The added value of the partner collaboration in this programme for the students is assured by the following aspects:

- Intercultural experience, learning in another environment/language learning;

- International cooperation with other students (in projects, seminars, courses, thesis work; internships companies);

- Learning complementary subjects for different competence profiles (not taught at the home university), related to complementary research and innovation;

- it's a recognized international certificate although not an official title.

Added value of the partner collaboration of this collaborative programme *for your institution*

The added value of the partner collaboration of this collaborative programme for the institutions of the consortium and the partners is assured by:

- The programme is more cost-effective through the collaboration;

- A more complete range of subjects and learning activities is offered;

- The partnership offers an additional multidisciplinary dimension to the programme;

- The programme has become more attractive, hence it has more impact and more students can be recruited;

-The partnership reflects research and innovation links with the partners.

6.   Sharing within the networked curriculum

The networked curriculum is assured through different activities, namely:

- Courses, course material, content;

- Learning environments, learning communities.

10. CADUV (CZ)

10.1 Interuniversity Study

Author: Jan Lojda

Website: http://rius.zcu.cz/

Level of the programme
- university

Size of the programme
Number of ECTS depends of courses (usually 2 – 6 ETCS).
Thed idea is sharing of both the courses and teaching staff of the universities participating in this project.
More then 2000 students (2006 – 2011).

The Partnership
The first consortium consists of the University of Hradec Králové, West Bohemia University and Tomas Bata University. The coordinating university was West Bohemia University.
In the next phases of the project were also involved Mendel University, Palacky University and VŠB-Technical University.

Teaching language
Teaching language was Czech and in some courses English.

Degree/diploma awarded
- A single degree

Financial support
2004 - 2008   national support
2009 -   no support (own source)

1.   Description of the collaborative programme
The Inter-university Study (IUS) System was realised in the form of the RIUS project, in which the University of West Bohemia in Plzen was the coordinator, and the University of Hradec Králové and Tomas Bata University in Zlín were partners.

It involves the sharing of both the courses and teaching staff of the universities participating in this project - thereby providing with the possibility of absolving part of their study programme at universities other than their alma mater university.

The courses are provided in a distance education form with eLearning support. This distance learning course is organised in the form of an introductory meeting in the presence of both teachers and students at the students` alma mater university, directed self-studies supported by a virtual educational environment and the Internet - and, as may be required, by further interim live, face-to-face meetings, combined with live examinations - or as the case may be, by a classified course credit.

The live face-to-face meeting may be replaced by synchronous video-conferencing using the Internet. Depending upon prior agreement with a partner university, students can choose these courses within the context of their compulsory elective subjects. The credits acquired by the student then duly count as a part of the fulfilment of their standard study duties.

Through making the best use of the range of inter-university studies offered to them, students can not only enrich their own study plans with topics attractive to them, but also get to know new educational methods and instruments, and have a share in the genesis of an expanded system of inter-university studies in the Czech Republic, enabling mutual sharing of study subjects and experts across this university network.

Aims and objectives and activities of the RIUS project

The key aim of the RIUS project is to support the genesis of inter-university studies, and which can be fulfilled through the completion and attainment of the following subsidiary aims and objectives:
- To prepare and stabilise its infrastructure (i.e. its organisation and processes) suitable for inter-university studies within a selected network of universities.
- To create an organisational and process model of inter-university studies within the framework of this project.
- To create favourable conditions for the expansion of this network of higher education institutions in order to realise this IUS within the Czech Republic.
- To prepare suitable conditions for the linkage of this network of Czech universities to similar clusters of educational institutions providing IUS (i.e. to virtual universities) in other EU countries.
- To prepare Czech higher educational institutions for more intensive collaboration within the Czech Republic, Europe - and eventually, elsewhere.

In order to be able to fulfil the above-mentioned subsidiary aims and objectives (and this is not an exhaustive list of the project's aims and goals), the following key activities were formulated:
- The specification of an inter-university studies model (i.e. its infrastructure, organisation, processes, etc.) on the basis of an analysis of the prerequisites and demands on partner universities, and their ability to adapt themselves for the realisation of such an IUS.
- The training of administrative staff (e.g. in the study agenda, the organisation of face-to-face events, in evaluations of outcomes and results) and of pedagogical staff involved in the realisation off the IUS – i.e. through methodological seminars, training courses, etc.
- The preparation of an evaluation and assessment system (i.e. student and pedagogue questionnaires, and structured discussions with the pedagogues).
- The preparatory phase for the realisation of this IUS would involve:
  - The mutual provision of courses offered by one to the others.

- The processing (here, narrowing down) of external offers for one's own students such that these would fit into existing elective subject structures.
  - The realisation phase of this IUS would involve:
    - Pre-registration of students in elective courses within the context of institutional customs.
    - The organisation of introductory meetings (face-to-face, video-conferencing, etc.).
    - Directed self-study – as required, further interim meetings.
  - Regular semester by semester assessments of the realisation and provision of the IUS (i.e. questionnaire-based evaluations by students and pedagogues, and structured discussions with these pedagogues).
  - The summarisation of the partial assessments for course modifications and the modification of the initial IUS model.

<u>Some experience drawn from the course of the project</u>

The facts and experiences can be summarises as follows:

- The actual representation of students from the individual institutions was markedly different and reflected the ways in which and the extent to which these external course had been promoted, the degree to which eLearning has been implemented within each institution, and the awareness of students of eLearning.
- A positive experience was, for instance, that some students (predominantly from full-time study programmes) chose external courses above and beyond the framework of their study obligations (i.e. essential credits), in order to gain an idea of this form of studies.
- A negative impact was the high degree of "die off/away" in courses where these students were not unconditionally forced to complete them in a due and proper fashion - and who simply, over the course of time, "evaporated away".

2.   Admission and selection for our collaborative programme
Any selection criteria

3.   The main incentives for our teaching staff to organize/participate in this collaborative programme
- interesting experience
- financial reward

4.   Online support of the collaborative programme and related mobility
Using a Learning Management System

5.   Added value of the programme

Added value of the partner collaboration in this programme *for your students*.
- International cooperation with other students (in projects, seminars, courses, thesis work; internships companies)
- Learning complementary subjects for different competence profiles (not taught at the home university), related to complementary research and innovation
- Access to specific infrastructure, labs, libraries, facilities, staff

Added value of the partner collaboration of this collaborative programme *for your institution*

- A more complete range of subjects and learning activities is offered
- The partnership offers an additional multidisciplinary dimension to the programme
- The partnership reflects research and innovation links with the partners

6.   Sharing within the networked curriculum

- Courses, course material, content
- Students (through mobility or (joint)lectures, projects, seminars, workshops, thesis, summer schools, projects,…)

11. MESI (RU)

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Building networked curricula in MESI is run in three main forms described below.

11.1 Building networked curriculum in an umbrella (distributed or multicampus) university

MESI has a complex structure comprising the main campus (headquarters) in Moscow and 35 branches, wereby 31 of them are located all over Russia in its different federal districts and 4 abroad. In accordance with the Russian legislation, the core educational programmes run in all MESI entities should be similar, provide equivalent scope of knowledge and skills and allow awarding appropriate degrees. Definitely, regional components of a Russian branch curriculum or national components of a foreign branch curriculum are included but the major part of it should be equivalent.

To ensure the equal quality education MESI applies a networked curriculum design and operation. Distributed educational activities entail a new concept and university structural unit, namely a distributed department (or chair) which organizationally and methodologically unites teachers, tutors and students of the distributed university regardless their location.

A Distributed Department:
- is based on the Department of MESI headquarters and unites faculty from Moscow and branches around one discipline,
- provides education in various academic disciplines assigned to the department at all levels of education, forms and training technologies for students, postgraduates, doctoral students and other learners,
- allows joint work for creation of a networked curricula as well as collaborative developing and updating courses.
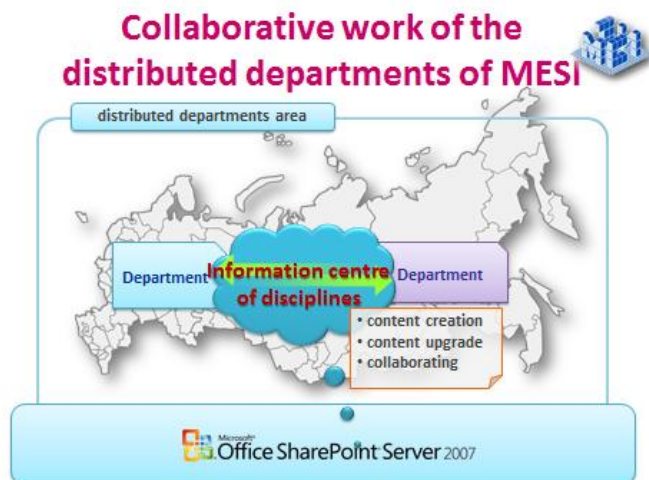
Fig. 1. Collaborative activities of the MESI distributed departments via Information Centers of Disciplines.

Areas of distributed department's activities:
- Collaboration of teachers and tutors of the distributed department in creating and updating content with the use of the Information Centre of Disciplines;
- Joint research and methodological work;
- Meetings of distributed departments' members(face-to-face, off-line and on-line);
- Organization and running joint activities (conferences, open lectures, master classes, defense of group course projects of students from different branches
- Certification of the faculty in branches by the heads of a joint department.

Distributed department's activities are realized with the use of the **Information Centre of Disciplines (ICD)** which is based on the Microsoft Office SharePoint Server. The main page of the site contains a list of structural elements of the ICD and can be edited to meet the needs of teachers in a particular discipline.

The Information Centre of Disciplines is accessible for faculty and staff, students and doctoral students of all departments and institutes of MESI and all its branches. The Information Centre of Disciplines is integrated into the personal workspace of any staff member and allows using a set of appropriate tools: libraries of electronic documents, Wiki libraries, blogs, references and links to external resources, forums, questionnaires, lists, etc.
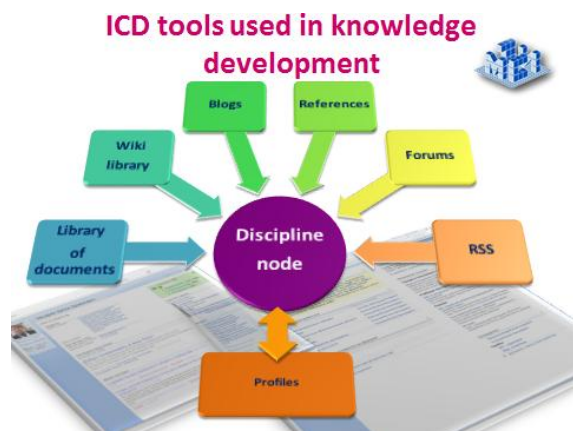
Fig. 2. The main tools provided in the Information Centre of Disciplines for knowledge sharing and development.

At present there are 44 Distributed Departments in MESI, and an average number of disciplines at a Department's responsibility is twenty. A specific site for each discipline is created within the ICD which is used in particular for developing networked curricula.

Due to functioning of the Distributed Departments and ICD, networked curricula are implemented in the distributed university and virtual mobility of faculty and students becomes a reality. There are a lot of examples where a professor from one of MESI entities (in Moscow or in branch) delivers a lecture for students which are geographically far-off but united by a discipline. The lecture is followed by seminars or practical classes under the guidance of local teachers and tutors. Collaborative work of students from different MESI entities has also take place. The teaching language is Russian.

11.2 Double degree bilingual programme

- **ECONOMICS** - double degree programme realized in the partnership of Moscow State University of Economic, Statistics and Informatics (Russian Fedaration) and University of Calabria (Italy) since year 2009

Website: www.mesi.ru ; www.unical.it

Levels of the programme
- Bachelor
- Master

Size of the programme
Bachelor programme: 240 ECTS total, including 180 ECTS points taught in MESI and 60 ECTS points taught in the University of Calabria
Master programme: 120 ECTS total, including 60 ECTS points taught in MESI and 60 ECTS points taught in the University of Calabria
- Student numbers:
Enrollment 2009 – 1 student (pilot phase of the programme)
Enrollment 2010 – 9 students
Enrollment 2011 – 8 students
Enrollment 2012 – 8 students
The Programme includes the additional module "Foreign language" (the Italian language for Russian students and Russian language for Italian students) , 7 ECTS during one academic year.

The Partnership
Partner universities: MESI (Russian Federation) and University of Calabria (Italy).

Teaching language
Italian language for Russian students studying at the University of Calabria and Russian language for Italian students studying at MESI.

Degree/diploma awarded
- Double degree awarded by Partner Universities separately
- Certificate for the module "Foreign language".

Financial support
The universities support the students' application for scholarships for studying abroad (2 MESI students have received the scholarship from the Italian National Grant in year 2010)

The tuition fee is paid by the students themselves.

1.   Description of the collaborative programmeme

A double degree programme realized in the partnership of Moscow State University of Economic, Statistics and Informatics (Russian Fedaration) and University of Calabria (Italy) (here and after referred as Programme).

The Programme educational stream is Economics, the specializations within the Programme are:

- Economics
- Economics and Business
- Quantitative Methods in Economics

The Programme has been developed based on the joint curriculum both for Bachelor and Master levels.

The programme duration :

- bachelor programme (4 years)
- master programme (2 years).

Programme structure:

- bachelor programme (1st year – MESI, 2nd year – MESI, 3rd year - University of Calalbria, 4th year – MESI)
- master programme (1st year – MESI, 2nd year – University of Calalbria).

Mobility path:

- bachelor programme (1 year, 60 ECTS)
- master programme (1 year, 60 ECTS)

The mobility period of the Programme is mandatory; therefore the percentage of students involved in mobility is 100%.

The virtual mobility is used within the Programme as a preparative and follow up stage for the physical mobility.

The average period of incoming staff mobility is equal 5 days, the average number of incoming and outgoing staff within the Programme is equal 2 staff representatives per year.

2.   Admission and selection for the collaborative programme

The admission criteria have been defined jointly by the partner Universities and are based on the students' educational background and quality of motivation letter or data of application interview.

The process of students' application is organized separately by each University based on the national and institutional admission criteria.

The Partner Universities have jointly agreed about the selection criteria. The basic selection criteria are the following:

- grades' mean level should not be lower than 4,5 out of 5 points
- sufficient level of the foreign language proficiency.

3.   The main incentives for teaching staff to organize/participate in this collaborative programme

Realization of this programme allows to increase an academic mobility of students and respond to the demand of students for an international experience. Students gain the competitive edge for employment.

Incentives for teaching staff participation in the programme:

- Responding for subsequent collaboration (development of the collaboration scope towards joint researches, academic staff exchange, etc.)
- Reinforcing research links.

4.   Online support of the collaborative programme and related mobility

For the online support of the programme the following tools are used: web-conferences, web-lectures, forum in the Virtual campus (based on Share Portal technology).

5.   Added value of the programme

The main added value for students are the following:

- acquisition of a broader scope of professional competencies due to the additional content, teaching methods and methodology of curriculum of Partner's University,
- development of cross-cultural competencies and tolerance through intercultural learning and experience,
- adaptation to the diverse mentality and culture, and
- possibility for the further professional development for Programme's graduates (R&D, work experience, continuation of their educational path).

Added value of the partner collaboration of this collaborative programme

- A more complete range of subjects and learning activities is offered, i.e. intensive course of the foreign language, learning event taught by professors of the partner University,
- The data of annual applicants' survey showed that the Programme has become more attractive, hence it has more impact and more students can be recruited, and
- The realization of the Programme has become an accelerator for development of joint research and innovation activities.

6.   Sharing within the networked curriculum

The realization of the Programme allows exchanging course materials and facilitates updating of regular courses.

The Programme initiates the development of professional learning communities.

The learning management system "Virtual Campus" provides necessary support for Programme's realization.

The Programme provides a possibility for regular academic staff exchange. The application of ICT provides a possibility for virtual academic staff exchange.

Wider usage of open educational resources (OER) within studying process takes place.

11.3   Master's Degree bilingual programme

A networked curriculum is built and implemented by the international team for MESI Master's Degree educational programme "Applied Informatics in Education and Distance Education" which is aimed at training new professionals for e-learning sphere specialized in ICTs in education and learning design.

This educational programme is very specific as, primarily, it is new to the Russian educational context in the times of e-learning economic sector being formed and the demand for this kind of specialists is stronger felt that ever before. And, secondly, because the educational aims are at the same time the learning content and methods used by professors for postgraduate students as they should learn the profession by doing.

That is why the concept of student centered approach and constructivism, problem-based, project - based approaches and activity methods were chosen to both build an integrated course curriculum and activities, and to teach and learn the course content.

As Applied Informatics today is used in different spheres and there is a need for ICTs advanced professionals in education, economics, management and other spheres, the decision was taken to construct the program on the basis of "Applied Informatics". But the applicants can be any Bachelor or Specialist Degree fellows, majoring in Management, Law, Education and ICTs. So, though being not limited the applicants should have the basic professional ICTs skills and understand the process of creating information systems, to be able to construct private and corporate networks of integrated knowledge.

The Instructional Design profession is critical for the growing e-learning market. Instructional Designers require deep understanding of educational processes and knowledge of change agentry to help transform the current academic systems into effective e-learning approaches. They should have not only organizational skills but also an ability to quickly integrate different knowledge from a wide range of fields including Pedagogy, Law, Computer Science and ICTs, Psychophysiology, Ergonomics, Marketing, Sociology, Cross-cultural Communication, Information Security, and Quality Assessment. All these taken into consideration, the competence portrait of a specialist was formed by extracting certain sets of knowledge from necessary subject areas that are needed to work with professional objects: learning content, teacher, student and activities.

The programme is a blend of core Computer Science courses and 10 specialized courses in modern educational technologies covering: the basics of distance learning, computer learning systems, legal issues of e-learning, pedagogy, basics of distance learning course creation, psychology of Internet communications, security of e-learning systems, and some others.

All these authentic courses are aimed at training specialists competent in classifying, analysis, evaluation, development of e-learning recourses and adapting systems for different knowledge areas and education levels. As this urgent demand for skilled professionals is met, we anticipate an on-going need to update skills and pedagogies as technology platforms change, as e-learning evolves to mobile learning, and as the impact of learning analytics is felt on distance learning approaches for the future. Thus, new approaches to education require re-thinking the systems and skills for creating and sustaining change. And that can be done on networked community based approach.

Being lacked in specialists in this unique sphere the university was and is strongly interested in sharing this knowledge with those who are involved in similar projects and discuss the basic competences for instructional designers and the ways of selecting and training professionals for this role. In our case the course developers were the leading specialists in the field both from Russia (e.g. Kazan Federal University Professor in Legal Issues of Distance Learning and Information Security, Moscow specialists) and abroad (e.g. leading Canadian specialist in Instructional Design from Athabasca University).

Following the main educational tendencies and demands of the course curriculum not only the content is developed in cooperation with leading specialists of the subject area, but the students are involved in seminars and lectures delivered by foreign professors (from Finland, UK, the Netherlands, Canada) thanks to MESI technical facilities (e-Campus, Adobe Connect Pro and so on).

Master's Degree Programme for Computer Science in Education majoring in Instructional Design was developed in 2009 and a pilot group of 6 students defended their Master's dissertation in 2011 carrying out projects for the real educational institutions and companies which undertake e-learning initiatives. All these final projects are coordinated by their employers' representatives and developed and assessed in the professional nets.

This academic year students present, discuss and carry out their final papers in cooperation with other students of the same programme from Athabasca University (Canada) with the consultancy of Russian and Canadian specialists. ICT instruments (e.g. MESI Information Center of Disciplines and e-Campus) allow building small net communities of students around each course in cooperation with a teacher, foreign expert and a vendor representative.

One of the main perspectives is realization of this programme at a distance and thus attracting a larger audience of on-demand private and corporate students and building grater net learning communities with the help of the leading e-learning vendors.

12. Kaunas University of Technology (LT)

12.1 Information Technologies of Distance Education (ITDE)

Authors: Danguolė Rutkauskienė, Ramūnas Kubiliūnas, Gytis Cibulskis, Daina Gudonienė

Website: http://en.ktu.lt

Level of the programme
- Master

Size of the programme

Master study programme Information Technologies of Distance Education (hereinafter "the Programme") is a two year programme amounting to 120 ECTS. The Programme is taught in a distance education mode and has 20-30 new students each year. The subjects in the study field make up no less than 60 credits, optional subjects and subjects appointed by the University for the preparation of the Final Degree Project equal to no more than 30 credits. Similarly, at least 30 credits are intended for the actual preparation of the Final Degree Project and its defence. Each semester the students have no more than 5 subjects. Individual work of students makes up at least 30% of the scope of each subject. The study of each subject or module is finished by taking an examination or receiving an evaluation for an individual task (project). If the accumulative grade system is applied, interim grades make up a part of the final examination evaluation. Such study plan and the given amount of credits are appropriate for students to achieve the outcomes pursued in the programme.

149 students have studied in the Programme in the period 2007-2011, 90 students at KTU and 59 – at VGTU.

The Partnership

It is a joint master degree programme between two largest Lithuanian technical universities - Kaunas University of Technology (KTU) and Vilnius Gediminas Technical University (VGTU).

Teaching language

The Programme is delivered in Lithuanian

Degree/diploma awarded

After successful completion of the studies students are awarded by Master of Information Technologies diploma which falls into Technology Sciences, Information Engineering study field.

Financial support

1.   Description of the Collaborative Programme

The demand for a study programme that prepares specialists in information technologies of distance education (ITDE) is supported by a great number of entrants and students admitted to the programme in five-year period. Only last year the number of entrants diminished in all areas due to the demographic and other reasons, thus, the number of applicants to the Programme also has slightly dropped.

The purpose, aims and pursued learning outcomes of the programme are determined by the necessity of specialists with knowledge and skills in information engineering, pedagogy and DE organization:

- Information engineering-related activity: design, development and application of IT tools for learning;
- Pedagogy-related activity: application of up-to-date approaches and methods in teaching and learning using IT;
- Distance education-related activity: organization and implementation of distance studies applying up-to-date pedagogic approaches and methods as well as IT.

After graduating, the ITDE specialists are able to work in education institutions, adult training and regional professional training centres, universities and colleges that require specialists capable of organizing distance learning process, design, implement or simply apply and employ the possibilities of IT to support e-learning, arrange training for acquiring or improving qualification at the time, place and speed convenient to the students.

The programme is targeted towards specialists with a higher education degree in different fields, rather than exclusively for the graduates of Informatics or Informatics Engineering. The programme provides a possibility for the specialists with informatics or informatics engineering qualification to expand and for others to deepen the knowledge in the application of informatics engineering in distance learning and acquire the necessary skills and abilities. After graduating from the programme, the specialists with informatics or informatics engineering qualification will be able to design and implement IT tools, apply them in the learning process, organize and conduct distance studies using up-to-date IT and pedagogic approaches. Similarly, after graduation, the specialists in other fields will be capable of applying (selecting and using) up-to-date IT tools in learning, organizing and conducting distance studies by applying modern IT and pedagogic approaches.

The main aim of the programme is to prepare masters of Information Technologies having comprehensive knowledge and skills in designing, implementing and applying information technologies and their tools in distance studies by using up-to-date teaching and learning approaches and methods; able to develop electronic teaching and learning tools and content, arranging and implementing high-quality distance studies by ensuring possibilities of life-long learning.

2.   Admission and Selection for the Collaborative Programme

Admission to the Programme is carried out by KTU and VGTU following the order determinate in each higher education institution. Admission to KTU is carried out following the Rules of Admission to KTU Second-Cycle Studies. Admission procedure is conducted by the Admission Commission on the Faculty level, approved by the Order of the Rector. Only the students who have a bachelor's qualification degree of Technological, Physical or Social Sciences can apply to the master studies. Admission is carried out in the form of a competition based on the competition grade which is composed of the weight average of the first-cycle grades multiplied by coefficient 0.8, and the grade of research activity in ten-point scale multiplied by the weight coefficient 0.2. The expert evaluation of research activity is performed by the Selective Admission Commission according to the presented documents (publications, conference programs, documents proving the winning of professional and other competitions, etc.) in an advance

meeting before the admission performs the Mandating Admission Commission. The ranked order of the entrants is announced on the announcement board of the Faculty and on its website in advance. The possibility of appeal is also provided. Additional admission into the remaining free or opened places is planned at the end of August and is conducted in the same manner as the main admission. During the period of evaluation, the majority of students were accepted during the main admission; for such reason, additional admission is conducted only if someone decides to withdraw (which happens once or twice a year) as students enter another higher education institution or leave to work abroad.
Detailed information about the programme and rules of admission to the second-cycle study programmes is placed on the websites of the University and Faculty of Informatics (http://www.ktu.lt/lt/informacija_stojantiesiems, http://ktu.lt/turinys/informatikos-fakultetas-0), and in the annual publication "KTU studijų programos" ("KTU Study Programmes").
Entrants to the programme are admitted into state-financed and paid places. In the case of the latter, every semester the students have to pay a study fee determined by the Senate of the University [23]. The size of the fee depends on the amount of the credits in the individually composed study plans. If any state-funded places become vacant, the best students paying the study fee undergo a competition and can take up the place. The rights and obligations of students in both state-funded and paid places are the same, excluding the right to scholarship. The conditions, procedure and stages of the competition for the paid places are the same as for the full-time state-financed places. The majority of students were admitted to state-financed places and only a small amount of students were eager to pay the full price, because since 2010/11 the annual price of second-cycle study programmes has grown considerably and reached annual fee of LTL 11 054 (EUR 3200). The students can select full-time or part-time studies. In 2007, 2008, 2009 and 2010 the students were admitted only to full-time distance studies.

3.   The Main Incentives for Teaching Staff to Participate in this Collaborative Programme

One of the main incentives for the teachers to participate in this Programme is being innovative and responsive to the students needs for a flexible and attractive learning opportunities in the subject area. Participation in this programme is assuring teachers competences in lifelong learning and increasing their competitiveness in the educational market.
KTU Faculty of Informatics is also planning to develop international study programme "Information Technologies in Distance Education" together with partners abroad making it an attractive choice for the students who are looking for international experience.
Teachers are provided with the constant support and training. The online content is renewed every year by introducing new tools for study support process and by raising the quality with complementary content. At the same time there are new methodologies used in delivery distance education raising the quality by complementary pedagogical approaches.

4.   Online Support of the Collaborative Programme and Related Mobility

Academic and other support for the students of the second-cycle programme is continuous. Regular and timely dissemination of information about forms, branches, financing of the programme, learning outcomes, their evaluation, optional subjects, timetables, possibilities of mobility, etc. is ensured by placing information of the announcement boards and regularly updating the websites of KTU and the Faculty of Informatics. The description of the study programmes is provided in the annual KTU publication "Studijų programos" ("Study Programmes") and "KTU studentui apie studijas ir laisvalaikį" ("On Studies and Leisure for KTU Students"). The publications are freely available for all students and teachers in the library of the Faculty.
During the first lecture, the Head of the study programme thoroughly explains the learning aims and career possibilities to the students. Similarly, during their first lecture, teachers introduce the aims of

the subject, its program, acquired knowledge and competence, discuss the requirements, individual tasks, evaluation criteria, indicate the literature for individual work, etc.

The teachers of the programme are also consulting students (consultation timetable is publicly announced in the premises of the departments so that students could arrive at the convenient time) during the fixed consultation time. Upon the request of students, consultations on the Internet and by e-mail are also available. Teachers lecturing on modules of the programme are publishing study materials (distance courses, slides, methodical material, descriptions of laboratory work, etc.) in the distance course provision environment Moodle. Lectures are delivered using videoconference technologies, web-conferencing solution Adobe Connect and Video Presentation System ViPS (http://vips.liedm.lt). All lectures delivered using ViPS system are automatically stored on video lectures archive and can be accessed by students on demand (see sample record on **Figure 1**).
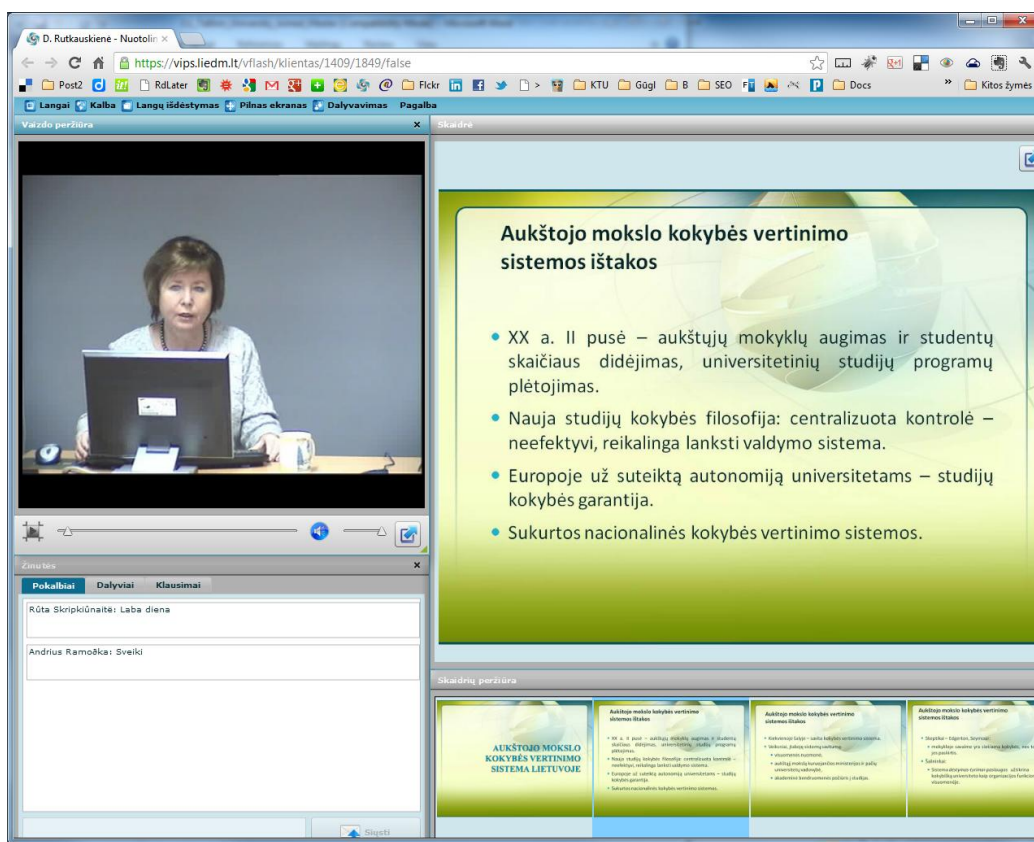

Figure 1. Record of the lecture captured on Video Presentation System

Methodical material for students is collected in the library, departments and E-Learning Technology Centre of the University, which are all equipped with computerised workplaces. Students can access wireless Internet in the reading rooms of the University library; they can also use electronic catalogues of the Virtual Library of Lithuania, full-text databases, KTU publications database, KTU scientific articles database, patent database and other resources. Information Department of the library provides the possibility for both teachers and students to use different subscribed international electronic databases containing books and scientific publications. The work of students is facilitated because they can access the catalogue of all University libraries and order books on the Internet. KTU library belongs to the Lithuanian Academic Libraries Network (LABT) and is the most valuable fund of literature on technological sciences in Kaunas city. Each year, considering the suggestions of teachers, the library

supplements its collection with new literature depending on the available finances. The library owns many different monographs, textbooks, reference books, dictionaries, and other republications in various languages; it also has a fund of periodicals on different areas of technological sciences.

The website operating in the library can also be used to browse subscribed databases and the ones which are still being tested. KTU central library subscribes to about 55 international databases, such as: Web of Science, SpringerLINK, Synthesis – the Digital Library of Engineering and Computer Science from Morgan & Claypool, Computers & Applied Sciences Complete, Inspec, ACM Computing, InformationSCIENCEnetBASE, etc. If any problems relating to the use of the mentioned databases arise, library staff can consult the teachers as well. They all regularly cooperate to exchange information about the relevant up-to-date literature, organize book exhibitions and order new literary sources.

Students can access full electronic publications prepared by KTU teachers and published by University publishing house "Technologija" on the website of the publishing house (http://www.ebooks.ktu.lt). Students can access full electronic publications prepared by VGTU teachers and published by University publishing house "Technika" on the website of the publishing house (http://www.ebooks.vgtu.lt).

The Head of the programme introduces the students of the academic group to the University regulations, help them to adapt in the academic community, consult on relevant issues related to studies, learning and social life, as well as help to solve personal problems. The students can use methodical literature, course papers and Final Degree Projects collected in the departments.

In the annual event "Career Days", organized by the Career Centre, teachers of the Department together with employers introduce the students to the representatives of organizations offering job positions. If necessary, the teachers help students to find companies providing the possibility of professional practice.

The possibilities for students to repeat the subjects and retake the examinations are defined in the Regulations of Settlement for the Study Modules. Until the beginning of the new semester, the first re-take of the examination is not charged, but a fixed fee must be paid for the second re-take. The examination failed during the session may be re-taken no later than until the end of the first week of the new semester. If the student has still unsettled for less than a half of the due credits after the re-take of the examinations or the prolonged term, s/he can be moved to the next semester by adding the subjects to be retaken to his/her individual plan. Such subjects are added to the nearest semester when they are to be taught if such delay does not impede the acquisition of other subjects related to the failed ones. However, if this is the case, and no possibility to specially arrange the subjects in question exists, the student is advised to temporarily terminate the studies and repeat the subject(s) next year. In the beginning of the semester, a fee established in the specific study cycle and mode must be paid for the repeated subjects. Students can re-take an examination (defend the Final Degree Project) in order to improve a positive grade when Dispute Settlement Commission of the University approves the appellation of the student (due to health issues, subjectivity of the teacher or other important reasons), submitted no later than in three workdays after the announcement of evaluations. In such case, the Dean of the Faculty which conducts the study module appoints another teacher or sets up a commission to examine the student's work.

Apart from academic, the students receive other types of support. The interests of the students are represented by the Student Union of the Faculty of Informatics, which takes part in allocating the accommodation and managing the dormitories following the dormitory regulations approved by the Chairperson of the Senate; distributing the scholarships, loans and benefits following the order determined by the Senate; taking decisions in the Council of the Faculty of Informatics; issues student cards, their copies and extends their validity period; organizes cultural and sports events, joint cleaning, meetings of students and teachers, discussions, seminars, conferences and surveys on issues relevant for students.

5.   Added Value
Added Value of the Partner Collaboration in this Programme for your Students
In the last five years, 149 students graduated the programme. Generally, they do not face any problems related to employment, because many of them work during the studies. As demonstrated by the survey of the entrants, more than 90% of master students combined studies and work in different Lithuanian and foreign companies, higher education institutions and high schools during the period of studies. This is not easy and the inability to combine work and studies is one of the reasons why some students drop-out in the first semester.
The study programme is clearly directed towards the organization of learning process under innovative conditions using modern tools. For this reason, the programme is popular among the entrants who intend to pursue a career in a higher education institution or high school (or who already work in this area). The knowledge acquired during the studies enabled some master students taking up positions requiring more responsibility and qualification.

Personal development by living independently in a different environment and cooperation with other students (in projects, seminars, courses, thesis work; internships companies) is organized and assessed. There is assured access to specific infrastructure, labs, libraries, facilities and etc. such as:
Internal social network, virtual learning environment, vide lectures system, national data basis, etc. First of all each program of basic (undergraduate) university studies consists of three groups of study subjects: common university training, fundamentals of study program, special training of study program. Most courses of study subjects are mandatory. However students are able to choose some elective courses. Besides, during the studies, students get at least 20 % of studies time for self-employment. Every course of study program concludes by written or oral examination. Every study program concludes by defence of students' final work or project. In such a way university provides possibility for students to get necessary knowledge of specialisation as well as fundamental knowledge of common subjects. And at the end of studies, university makes sure did students get the required qualification. Such model supports university to reach strategic objective to prepare high-qualification specialists. Secondly in the university are two more levels of university studies: graduate (Master's) and postgraduate (Doctoral). During these studies students are able and have to not only to deepen their knowledge, but also to start performing scientific researches. This helps university to develop scientific excellence as students start participating in the scientific conferences and writing scientific articles. Besides during researches and writing final works students make ideas and realisation plans for innovative products and technologies. This helps university to supply the economic needs for development of new products and technologies and installation of innovations.
Added value of the partner collaboration of this joined Master degree programme - it is more cost-effective through the collaboration between 2 universities by sharing the responsibilities and the lectures delivery.
 The partnership offers an additional multidisciplinary dimension to the programme and the programme has become more attractive, hence it has more impact and more students recruited and can study in. SWOT analysis of the Programme has been performed and following strengths and opportunities were identified.
Strengths
1.   University is well known in national and international levels.
2.   Academic staff has a big competences.
3.   Research addressed to the strategically objectives and National priorities.
4.   A very good ICT infrastructure in University.
5.   Well regulated amount for studies.
6.   The biggest budget (not governmental) among Lithuanian institutions.

7. Possibility of adaptation to the dynamic society.

Opportunities
1. To delivery qualitative studies and to develop competences for T&T.
2. To organize studies to foreign students.
3. To integrate new IT systems to organize studies process.
4. To develop facilities for continuing education.
5. To transfer results of research to the IT development and innovations.
6. To participate in formation of social-economic policy in Lithuania.

All decisions related with new learning model and system implementation were performed and are being performed according to the Lithuanian laws. The overall process is described above in the field about Bologna process implementation.

6.   Sharing within the Networked Curriculum

Admission to the programme is carried out separately in KTU and VGTU, but afterwards all admitted students study the subjects together and are assessed by the same teacher who lectures on the respective subject, except for the Research Projects and Final Degree Projects. If the subject is taught by a teacher from the university other than the student was admitted to, the examination results are submitted to the university which the student belongs to.

Courses, course materials and other content is shared with the networked curriculum. The curriculum is shared with other teachers of the programme within Learning Management System, Video Lecturing Systems and during projects, seminars and workshops.

Students are collaborating through mobility or joint lectures, projects, seminars, workshops as well as in the learning environments, learning communities. They also have access to libraries of partner institutions, access to data bases, raw research material and other resources.

13. Formation Universitaire à distance (CH)

13.1 Bachelor of Science, Business Administration and Economics

Author: Damien Carron

Website: http://www.fernuni.ch/studiengaenge/wirtschaft/bsc

Level of the programme
- First academic degree, Bachelor

Size of the programme
Bachelor programme: 180 ECTS, 9 semesters in part-time study
Student numbers involved per year: 20-25 new students each semester.

The Partnership
Partner universities: Fondation Formation Universitaire à Distance, Suisse (CH) / FernUniversität in Hagen (D)

Teaching language
German

Degree/diploma awarded
Double degree awarded by institutions separately

Financial support
No support

1. Description of the collaborative programme

The degree program provides sound theoretically grounded basic knowledge in all main fields of Business Administration and Economics. It includes ten compulsory modules and six compulsory elective modules. The compulsory modules deal with fundamental principles of mathematic and statistics for economists, economic informatics, law, micro- and macroeconomics, external and internal accounting, production, costs, sales and investment, financing and management. The elective compulsory modules can be selected from a broad range of business administration and macro-economic modules. Each compulsory and elective compulsory module has a workload of 300 hours and concludes with a 2 hour written examination. Seminar and bachelor thesis are completed in the last semesters, for the seminar

thesis with a written thesis and a presentation and for the bachelor thesis with a written thesis. Through its method- and problem-oriented nature, the degree program offers a basic scientific education in business administration and economics. The programme provides a scientific qualification that is relevant to the European market, enabling access to a broad spectrum of professions. The double degree programme combines in a predefined way nine modules from FernUniversität in Hagen with nine modules from Fondation Formation Universitaire à Distance, Suisse.

The programme duration
9 semesters in part-time study

Programme structure:
- 10 compulsory A-Modules, each 10 ECTS, in total: 100 ECTS
- 6 compulsory elective B-Modules, each 10 ECTS, in total: 60 ECTS
- Seminar and bachelor thesis, each 10 ECTS

Mobility path
The course includes physical mobility of students for 4 group meetings and one examination session per module. The teachers are present during the group meetings. Virtual mobility of students is 50% per module. Per year 5-10 meetings are organized for the non-teaching staff.

2. **Admission and selection for our collaborative programme**

There is a cooperation agreement between the both institutions.
There are joint procedures for registration, partly centralized services in one partner for the charges, and different procedures in each partner for the exam registration, study materials ...
Every single university is organizing admission and selection of student on its behalf.
For the students' financial aspects, the services are centralized in one partner. Charges are collected by Fondation Formation Universitaire à Distance, Suisse (CH). FernUniversität in Hagen sends an invoice for their charges.

3. **The main incentives for our teaching staff to organize/participate in this collaborative programme**
- Responding to the demand of students for an international experience
- Making an attractive international programme together with partners abroad
- Raising the quality by complementary content

4. **Online support of the collaborative programme and related mobility**
For the online support of the programme Moodle 1.9 is used.

5. **Added value of the programme**
The main added value for students are the following:

- Intercultural experience, learning in another environment learning
- Personal development by living independently in a different environment
- Learning complementary subjects for different competence profiles (not taught at the home university), related to complementary research and innovation
- International recognized title

Added value of the partner collaboration of this collaborative programme *for your institution*
- A more complete range of subjects and learning activities is offered
- The partnership offers an additional multidisciplinary dimension to the programme

6. Sharing within the networked curriculum
- Courses, course material, content
- Learning environments, learning communities,…

14. Hungarian e-University Network

14.1 International Master in Heat Treatment and Surface Engineering

Author: Tibor Dori (EUROCONTACT)

Website: www.minse.net

Level of the programme

- **Master of Science**

Size of the programme

MinSE is a four-semester, International Master of Science degree in Heat Treatment and Surface Engineering, including 22 study units + one semester of final project work, leading to a total of 120 ECTS. The MSc is awarded by the University of Malta and has been developed by a multinational Partnership using financial support of two former EU supported projects. The Programme has a well balanced mix of theoretical and practical components and is firmly focused on industrial relevance. The course is post-graduate or post-experience education. Its target audience is relatively broad and the programme has some characteristics of a conversion degree.

The course is delivered in English and is accredited by Institute of Materials Minerals and Mining, UK. It offers worldwide acceptance and transportability. It is structured on the European Credit Transfer System (ECTS) and in accordance with the Bologna Process. Some study units are designed as stand-alone and can thus be taken separately as staff development courses and continuing professional development.

The part-online, part face-to-face course have been developed by a consortium of five universities and six industrial partners (scaling from SMEs to huge multinational firms), while a global, world-wide international professional body, IFHTSE (International Federation for Heat Treatment and Surface Engineering) provided secretariat and professional networking background. University of Miskolc was involved in both content and methodological development, playing the interface role between professionals and e-learning experts, providing e-learning development and delivery support.

The Partnership

The Course has been designed by a Partnership combining the expertise and extensive modern facilities of five universities, six industrial companies and a global organisation linking institutions, associations and companies with a primary or significant interest in heat treatment and surface engineering. Partnership and network developed the training materials for the MinSE courses in the framework of two EU funded Projects:

- INNOV@TE - International On-Line Voc@tional Training in Surface Engineering - Leonardo da Vinci UK/01/B/F/PP/129_462
- MinSE - European Master's in Heat Treatment and Surface Engineering - Socrates 74922-IC-1-2005-1-MT-ERASMUS-PROGUC-6

Academic partners

University of Malta (Coordinating organisation of MinSE project)
University of Birmingham, UK
Technical University of Clausthal, Institute of Welding and Machining Germany
University Petru Maior Romania
University of Miskolc Hungary

Industry partners

AdSurfEng, UK
Bodycote plc, UK and global
Micro Materials Ltd, UK
Plasmaterm SA, Romania
Surface Engineering Ltd, Malta
Hempel A/S, Denmark

International association partner

International Federation for Heat Treatment and Surface Engineering (IFHTSE)

Accreditation body

Institute of Materials, Minerals and Mining, UK

Observers

UTN FRBA Argentina
Xi'an Jiao Tong University China
Kansai University Japan

Teaching language

Teaching language is English; however, the planned delivery and structure of the Course provides many opportunities for familiarisation with multilingual terminology and encouragement to improve language capability. Some of the learning materials are available in HU, RO as a former joint course develoment project, INNOVATE focused on innovative methodology of multilingual delivery as well.

Degree/diploma awarded

The MinSE Master's Degree is currently being offered by University of Malta as a single Degree, but possibillity of offering it as a joint Degree is open for any of the partner HEIs. Taught courses of the second and third semesters are also offered as independent professional development courses for practicioners from industry, as each of the couses are taught in two week periods, sequentionally and not parallel to each other. Such a way – in contrast to Erasmus Mundus scheme – teaching staff is expected to travel for such short teaching periods of their modules to Malta and the students remain for the 2nd and 3rd semesters in Malta. Travel costs of academic staff is foreseen to be covered by Erasmus

staff mobility scheme – bilateral ERASMUS agreements have been established by all partners with the University of Malta.

Moreover, all partners are free to use any of the elements of the course and may accredit the course as a whole, or in parts. This is the practice of the University of Miskolc, where several learning elements of both Innovate and MinSE projects have been translated and adopted and are used either in Hungarian or in bilingual format. Moreover, a professional development course has been accredited according to the Adult Education Law of Hungary, offering 72 hours of learning programme for practicing engineers of industry.

At this stage, partnership considers to restructure the MinSE Master course according to the ERASMUS MUNDUS scheme and plans to apply for a grant to launch the program.

Financial support

Course development was supported by some EU projects as well as national funds as follows:

INNOVATE - International On-Line Voc@tional Training in Surface Engineering - Leonardo da Vinci UK/01/B/F/PP/129_462 – running in the period of 2001 - 2004. The total Project budget of EUR 758 000 was 75 % funded by EU grant.

MinSE: European Master's in Heat Treatment and Surface Engineering - Socrates 74922-IC-1-2005-1-MT-ERASMUS-PROGUC-6 – running in the period of 2006-2009. The total Project budget of EUR 560000 was 75 % funded by EU grant.

E²ngineering - Development and testing of multilingual e-learning materials and courses in advanced engineering subjects based on reusable elements (LOMs), second generation e-learning architecture and methodology - Leonardo HU/04/B/F/PP-170029 – one of the 12 modules developed in this project focused on Laser Surface Treatments.

National support was provided in two Hungarian projects for adoption and translation – both funds were quite low amounts, so the majority of work for language adaptation was done on voluntary basis.

Industrial partners have made a significant in-kind contribution, as they were intensively involved in programme and course development without getting any fund from the mentioned projects.

1. Description of the collaborative programme

MinSE is a complete four-semester course for a European or international Master's qualification in heat treatment and surface engineering. The part-online, part face-to-face Course is offered initially by the University of Malta, which was the main contractor for the funded MinSE Project.

The Course has an appropriate theory and science element but is firmly focused on industrial relevance. It is for blended learning delivery, using live contact lectures and distance learning techniques.

Practical work can be carried out at Partner universities and/or at Partner companies – the combination offering a wide range of state-of-the-art facilities.

Provisionally accredited by the UK IOM3 and delivered in English, it is intended to have Europe-wide acceptance and „transportability", and is therefore designed in accordance with the Bologna Process, and offers ECTS credits. Use outside Europe is also possible.

The Course is designed to be either, or both, post-graduate / post-experience continuing education and its target community is relatively broad so that it also has some characteristics of a „conversion course". Its distinguishing characteristics are breadth of coverage and the fact that parts of the course are easily adapted for stand-alone use in, for example, company training.

Special features include Modules covering economics and management and the management of innovation. Materials coverage is wide, including polymers and the bio-interface. There is also a special Module on industrial paint and its surface interface.

Course structure
The Course extends over four semesters of full-time study. The programme of studies includes 4 semesters and three parts:

i) Distance Learning study units, to which 30 ECTS credits shall be assigned.

ii) Taught study units, to which 60 ECTS credits shall be assigned

iii) A dissertation carried out at one of the Partner universities or companies, to which 30 ECTS credits shall be assigned. The final project may be carried out at any of the Partner universities or Partner companies which offer an extensive range of state-of-the-art facilities.

The course structure is illustrated by the following figure:
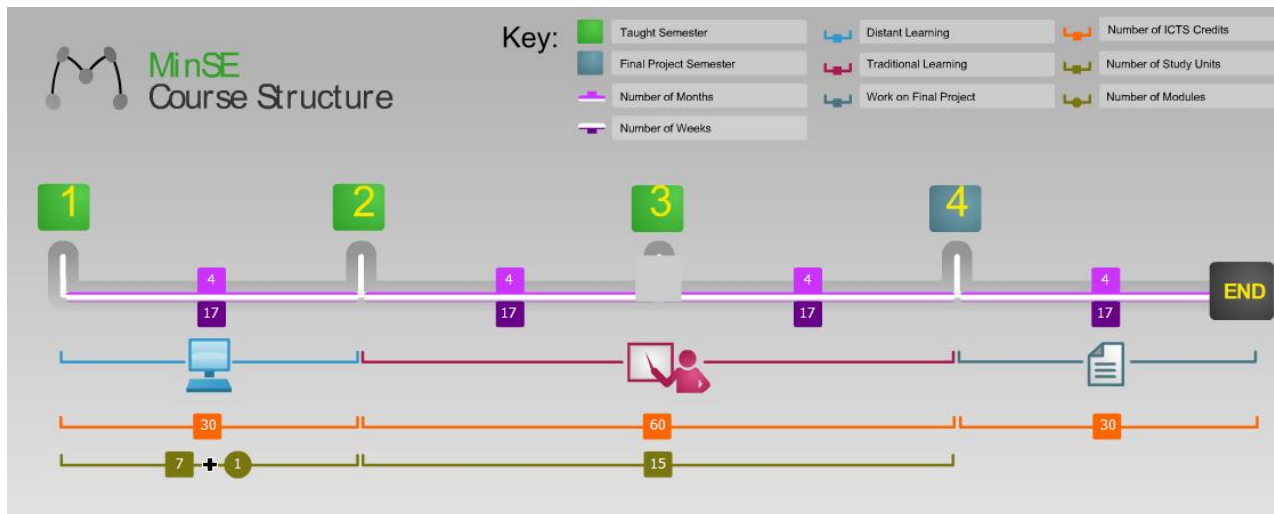
Each study unit typically represents
- 20 hours of contact time and/or distance learning followed by discussion sessions. Face-to-face delivery will be 4 hours per day over a 5 day period.
- 12 hours practical sessions - hands-on or computer-based, delivered 3 hours per day over a 4 day period.
- 4 hours for general discussion, case studies and assessment.

Students are expected to dedicate a total of 100 hours to each study unit, including contact time, laboratory sessions, private study and assessment.

Modules Summary

Titles of modules	Original supplier of teaching material
Semester 1 (Distance learning)	
Introduction to heat treatment and surface engineering	University of Malta

Ferrous materials	University of Miskolc
Non-ferrous metals	University of Birmingham
Bulk heat treatment	Petru Maior University
Engineering polymers	University of Malta
Testing	TU Clausthal
Materials selection; Information management	University of Miskolc
Semester 2 (Face-to-face)	
Characterisation	University of Birmingham
Surface preparation	TU Clausthal
Surface degradation	TU Clausthal
Thermal and mechanical surface treatments	SC Plasmaterm SA; University of Birmingham
Thermochemical processes	University of Birmingham
PVD & CVD	University of Birmingham; Petru Maior University
Integrated management systems	Petru Maior University
Semester 3 (Face-to-face)	
Energy beams	University of Malta; TU Clausthal
Electrochemical processes	TU Clausthal; University of Malta
Biomaterials and surface engineering	Ad Surf Eng Ltd
Nanotechnology	Petru Maior University; Micro Materials Ltd
Industrial paint	Hempel S/A
Industrial equipment	Bodycote plc; University of Malta
Design, Modelling and Simulation	University of Birmingham; University of Miskolc
Innovation Management	University of Miskolc
Semester 4	
Dissertation / Project	

Mobility paths in MinSE

As described above, the first semester is offered in distance learning form, but as tutoring is provided by the different partner universities, moreover as the on-line learning materials involve several virtual lab visits and case studies, we may consider this stage as a virtual mobility period for the students. Its main aim is to "homogenise" the previous knowledge as well as language skills (technical English) of the students, originated from many different countries and academic background.

In the second and third semesters, the international student group is situated in Malta, so they have a full year study period in physical mobility. In this period staff mobility is also applied in 2 weeks periods to provide international teaching staff for giving lectures and holding practical lessons. Part of these practicals use digital learning environment as well.

In the last semester, students may prepare their final project/dissertation at different partner universities, industrial firms or research institutes, as an internship type physical mobility.

Regarding the average period of staff mobility, each module is taught in 2 weeks periods, number of staff mobilities is foreseen as 5-6 per semester.

2.   Admission and selection for our collaborative programme

MinSE is mainly targeted at mechanical engineering and materials science/engineering graduates wanting to continue studies and gain further qualification. It is, however, a extent 'vocational' qualification in that it is concerned with real and specific industrial functions and processes. The target market covers:

- Recent graduates moving immediately to a Master's qualification
- Individuals in materials engineering activity needing knowledge upgrade or extension
- Individuals wanting to move to heat treatment and surface engineering from positions in more or less related industries

Admission criteria:
  i.   Applicants shall be in possession of: Bachelor degree in engineering or science awarded by the University of Malta or an appropriate degree from another university recognised by the Senate for the purpose , or
 ii.   With the specific approval of the Board of Studies, another suitable degree accompanied by at least five years of industrial experience in the field of heat treatment and / or surface engineering
iii.   Academic qualifications implied in (i) and (ii) above shall be at least at second class.
 iv.   The Board shall recommend to Senate the number of applicants that may be allowed to register for the Course. The number of available places shall be announced at the time of the call for applications. If there are more eligible applicants than the number of places available, applicants shall be selected on their performance in an interview held for the purpose and their qualifications, aptitude, experience and commitment.

3.   The main incentives for our teaching staff to organize/participate in this collaborative programme

Teaching staff of the University of Miskolc recognize several and versatile benefits as results of these collaborative programs. Among them, the most important ones are the followings:

- Offering high quality courses for both our local and international (ERASMUS) students, improving their content related knowledge and skills as well as language skills in technical English, multicultural and networking skills.
- Increasing the "employability" of our graduates on the globalized, international labour market
- Based on these attractive international educational programs, we may launch further collaboration in research and development programs, reinforcing research links as well.
- Recruiting international students for ERASMUS exchange programs, as well as subsequent collaboration (research, PhD,…)
- Reputation building in European Higher Education Area.

4.   Online support of the collaborative programme and related mobility

Fig.2. Demo course for MinSE project can be visited by guests at http://edu.uni-miskolc.hu/minse

Added values of international collaboration

Common roots of four EU supported content development projects in engineering go back to nearly two decades. Just after the political changes in Hungary, new possibilities opened up for professional collaboration: Hungarian experts became free to join international societies, as members, and different EU supported programmes (TEMPUS, PHARE, LEONARDO, MINERVA, ERASMUS) as partners. Our collaboration with some recognised experts and institutions in Surface Engineering (SE) started with a TEMPUS project titled: *"Establishment of new courses on Materials Engineering in Hungary"* (1994-97). One of its three subprograms focused on SE, based on our collaboration with University of Birmingham, aiming at the development of handouts for 15 learning units – still in traditional, printed format. Soon after completing this three year project we started to plan new opportunities: the *Innov@te* Leonardo pilot project - International On-Line Voc@tional Training in Surface Engineering – focused on wide-scale methodological experiments in e-learning development, between 2000-2004. The Innovate consortium represented top-leader experts and societies – the IOM3 (Institute of Materials, Minerals and Mining, UK) was its contractor, professionals were represented not only by universities but also the International Federation of Heat Treatment and Surface Engineering (IFHTSE), while University of Miskolc coordinated the e-learning development.   Three different e-learning scenarios were tested, multilingual methodology has been developed. Video-conferencing with the University of Malta and Birmingham proved to offer extremely effective method for enriching the professional content and improving multicultural competencies of learners.

Collaborative work by the Partners in the Innovate project showed that, while some universities offer modules in surface engineering as part of their taught master's programme, the institutional framework to offer a full master's degree course in heat treatment and surface engineering is lacking, despite the core importance of heat treatment processes and the vast potential of surface engineering in fields such as transport, space, nanotechnology, biomaterials, the polymer industry, toolmaking and many others.

MinSE project was launched to respond to this need by developing a strongly multidisciplinary second cycle programme of studies in heat treatment and surface engineering – MinSE - covering a wide range of technologies, both traditional and state of the art, with due emphasis on environmentally benign processes. The intention is to offer students a comprehensive view of the subject, enabling them to evaluate all criteria for decision-making, individually or in a team, on materials and processes for routine

and new and challenging applications. Student and staff mobility is a feature of the plan and an interdisciplinary approach is encouraged, embracing scientific, engineering, environmental, energy, health and safety, management and economic issues.

5.   Added value of the programme

Added value of the partner collaboration in this programme *for your students*.

The most important benefits for the students of the University of Miskolc are the followings:

- Based on the agreement of the Innovate and MinSE partnership, all learning elements developed in these projects are freely available for the regular students of the partner universities. So our students may get access to all of these state-of-art, very high quality content in Heat Treatment and Surface Engineering.

- Some of these learning objects were translated and adopted, some others are available in bilingual format or only in English. Students may not only gain marketable, advanced knowledge, but also may improve their language skills and intercultural experiences, visiting the virtual laboratories and reviewing industrial case studies.

- As a special and outstanding opportunity, our students may attend the virtual (videod and edited) lectures of the world famous experts of given subjects – e.g. they can learn about thermochemical treatments from the late Prof. Tom Bell, who was the initiator of defining this multidisciplinary subject as Surface Engineering.

- In the last semester students may get access to the specific infrastructure, labs, libraries, facilities, and advisory support of the selected university or industrial firm, but may also get help for his research from the other partners.

Added value of the partner collaboration of this collaborative programme *for your institution*

At institutional level, the following added values can be mentioned:

- In the related subjects, our university may be recognized as a leading professional body also nationally and at European level.

- Based on the long-term and fruitful collaboration with the most excellent academic and industrial partners in this multidisciplinary field, further possibilities may open up for different follow-up projects in education and in R+D.

- International recognition may improve the position of our university in the globalized knowledge market.

- In addition, new didactic and pedagogic models have been experienced and new educational methodologies (i.e. multilingualism) have been developed.

6.   Sharing within the networked curriculum

- All learning materials are available for all partners in the main Moodle platform (http://edu.uni-miskolc.hu/, MinSE) , managed by the University of Miskolc, but may be also transferred to the e-learning system of the partner universities. Partners may reuse, adopt and translate these learning objects, and may deliver them to their own students as well.

- In the last period, students will get access to all resources of the partnership: databases, libraries, research results, reports, facilities, etc.
- As a new initiative, an Education and Training Portal –a gateway to information and resources in SE educational programs - will be established for the International Federation for Heat Treatment ad Surface Engineering. This project is coordinated by the University of Miskolc, and students are involved in the data-mining and testing phase in the framework of their internship, as part of International Internship Agora LLL dissemination project.

14.2 Erasmus Mundus Minerals and Environmental Programme (EMMEP)

Author: Tibor Dori (EUROCONTACT)

Former name of the program: European Mining, Minerals and Environmental Program.

Website: www.emmep.org;   www.femp.org

Level of the programme

- Master of Science (M.Sc.)

Size of the programme

EMMEP is a 2 year (2x8 months) Master of Science program with 120 ECTS for students in Mining, Geotechnical Engineering, Mineral Processing, Recycling and related academic studies. There are three different specialisations accommodating groups with 15 to 20 students each:

- Mining Engineering (European Mining Course – EMC)

- Mineral Processing (European Mineral Engineering Course – EMEC)

- Geotechnical Engineering (European Geotechnical and Environmental Course (EGEC)

Entry requires a Bachelor's degree in Minerals or Resource Engineering, or an equivalent discipline. The degree includes a Diploma Supplement describing the program and expertise achieved. The study plan of each specialisation comprises four semesters. The first two semesters are reserved at four of the below listed six universities jointly. The group of students stay together for the entire 8 months and spend half a semester at each of the partner universities in a defined system. For the remaining two semesters the student chooses two of the four universities he/she attended in the first year and writes his/her thesis there.

The Partnership

The EMMEP consortium consists of six partner universities that are the following:

- Delft University of Technology, The Netherlands (Co-ordinating Institution)

- Helsinki University of Technology, Finland

- University of Miskolc, Hungary

- Wrocław University of Technology, Poland

- Rwth Aachen University, Germany

- University of Exeter, United Kingdom

The program is strongly supported by the industry (more than 30 multinational companies). This has proven to be one of the most important factors of its success. Internships are frequently offered to participating students.

During the development of the three specialisations, the industrial members of the Federation of European Mineral Programs (FEMP) have assisted financially and in many other ways, to make the development possible. These are not only the companies directly from the Minerals sector, but also those with indirect links (Shell, IHC, Caterpillar, etc.) that realised the importance of the program and consider the graduating students as potential employees.

Teaching language

The official language of the program (application, lectures, exams, etc.) is English.

Degree/diploma awarded

The program is a double M.Sc. degree program in the field of Minerals and Environmental Engineering. Both partner Universities – where the last two semesters are spent – delivers a diploma to the graduate students independently.

Besides, there is an opportunity for European students of the partner universities to attend one of the courses available (EMC, EMEC, EGEC) – the first 2 semesters in 4 universities –, travelling together with the group. At the end of the two semesters a certificate is given to these students proving that they completed all their exams.

Financial support

The European Commission provides a limited number of Erasmus Mundus scholarships for "third-country" graduates. Nationals and residents of EU Member States, EEA-EFTA States (Iceland, Liechtenstein and Norway) and candidate countries (Croatia, Former Yugoslavian Republic of Macedonia and Turkey) can have another type of grants. Eligible students need to have a degree from an institute of higher education and should not have engaged in their main activity (studies, work etc.) for more than 12 months over the last five years in any of the Member States or other participating countries mentioned above.

For third-country (outside European Economic Area) students:

The scholarships amount to 24,000 Euro for each of the two years of the programme. A fee of 10 000 EURO per year will be charged to cover the tuition fee and general administrative costs associated with the EMMEP programme. The remaining 14,000 Euros is available for the student to cover most of the cost of living and travelling.

For European (within European Economic Area) students:

The scholarships amount to 10,000 Euro for each of the two years of the programme. A fee of 4000 EURO per year is charged to cover the tuition fee, and general administrative costs associated with the EMMEP programme. The remaining 6,000 Euro is available for the student to cover most of the cost of living and travelling.

In addition, the program is strongly supported by the industry (more than 30 multinational companies of the FEMP).

1.   Description of the collaborative programme

The Erasmus Mundus Minerals and Environmental Programme (EMMEP) is a two-year MSc course (120 ECTS) in English language to educate new talent, future managers and leaders in the European and worldwide mineral industry. It is taught at multiple locations and leads to a double M.Sc. degree in the fields of Mining, Minerals and Environmental Engineering. The program accepts students from EU and non EU countries.

The consortium offers a unique curriculum with a combination of mineral resources and environmental courses that cannot be found anywhere else in a single European country or institution. The partners of the consortium have a well-established research and educational background and long-standing links with Industry and other research / educational institutes. Due to the small class sizes the programme has a very favourable professor / student ratio.

The objectives of the programme are to provide:

- An excellent international programme leading to a renowned double degree in Minerals and Environmental Engineering;

- The education of future leaders for the international and European extractive industry;

- Strengthening the leading position in higher education by combining the areas of excellence of six top European universities;

- Familiarity with key issues concerning sustainable, environmentally friendly acceptable solutions to challenge in the economical supply of primary and secondary resources;

- Research skills for further studies (e.g. doctorates), specialised topics required by industry and continuous professional development;

- A European perspective on Resource Engineering and Management – by studying in various European countries;

- A global perspective on resource supply issues and problems;

- Excellent international employment opportunities;

- Developing and expanding an international excellence in raw materials supply.
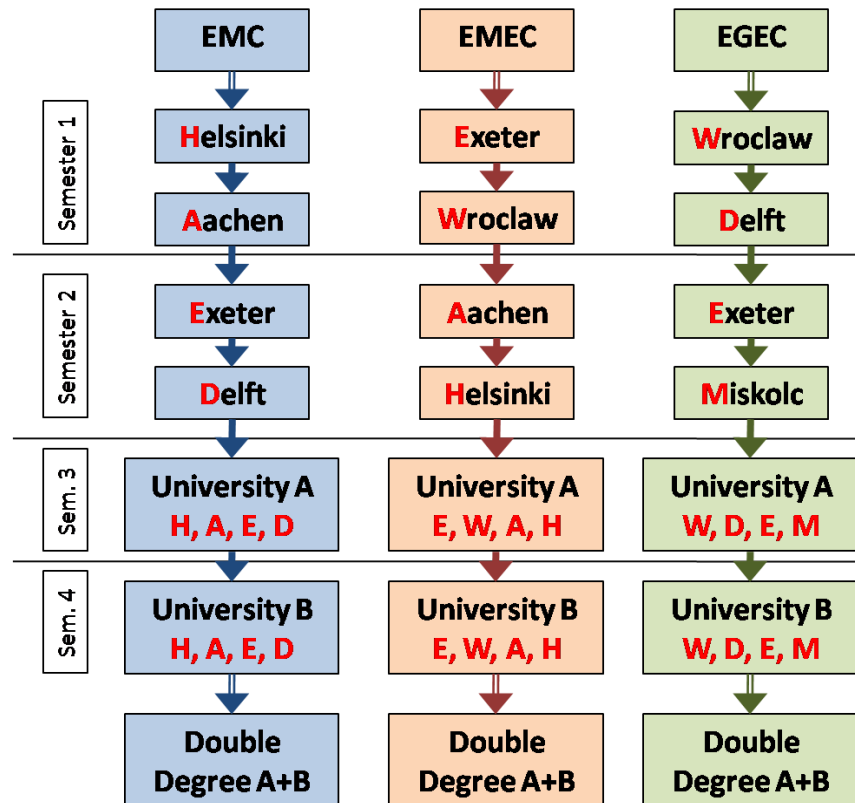
Entry requires a Bachelors degree in Minerals or Resource Engineering, or an equivalent discipline. The degree includes a Diploma Supplement describing the nature, level, context, content and status of the studies pursued and successfully completed. The study plan comprises four semesters. Two semesters are reserved for an eight-month joint curriculum at 4 universities. The remaining two semesters are spent at two of the four formerly attended universities; these two universities award the double degree (2 MSc diplomas).

The three main specializations offered by the programme focus on:
1. Extraction of resources: *European Mining Course (EMC)*
2. Processing and recycling of resources: *European Mineral Engineering Course (EMEC)*
3. Environmental and geotechnical issues: *European Geotechnical and Environmental Course (EGEC)*

Students stay as one group at each of the locations for a period of around seven weeks. Accommodation is in student housing, which the Host University makes available.

Structure of the program

EMC | **EMEC** | **EGEC**

Semester 1:
- Helsinki | Exeter | Wroclaw
- Aachen | Wroclaw | Delft

Semester 2:
- Exeter | Aachen | Exeter
- Delft | Helsinki | Miskolc

Sem. 3:
- University A — H, A, E, D | University A — E, W, A, H | University A — W, D, E, M

Sem. 4:
- University B — H, A, E, D | University B — E, W, A, H | University B — W, D, E, M

- Double Degree A+B | Double Degree A+B | Double Degree A+B

Based on the educational objectives the most important learning outcomes that required to be achieved should be carefully defined and applied e.g.:

1. The ability to apply knowledge of mining and/or minerals and/or geotechnical, science, and engineering
2. The ability to design and conduct experiments, as well as to analyze and interpret data
3. The ability to identify, formulate and solve engineering problems
4. The understanding of professional and ethical responsibility
5. The broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
6. The ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

2.   Admission and selection for our collaborative programme

Anyone can apply for the program who has a Bachelor's degree in Mining or Mineral Engineering or an equivalent graduate degree in a subject relevant to the EMMEP program (with a minimum of 180 ECTS). The applicant has to have a thorough general knowledge on the fundamentals in engineering or geo-sciences. If someone only expects to be awarded a Bachelor's degree in the near future may also submit

an application for admission together with a letter from his/her university stating that the degree will be completed before 1 July.

Students originating from non English-speaking countries are required to demonstrate their language proficiency in English (TOEFL, IELTS or an equivalent).

The admission and selection are jointly organized by the partners. Upon receipt of the applications the Consortium Board selects a list of suitable candidates. The selection of students is based on the criteria set and agreed by the partner universities.

3.   The main incentives for our teaching staff to organize/participate in this collaborative programme

As in the above described program each course is realized in the collaboration of four universities, it is a good occasion for our teaching staff to have a close working relationship with leading European universities through regular personal meetings according to the evaluation processes and educational matters. At the same time there is an opportunity to know the systems and standards of several European universities that can help us staying competitive and up-to-date with our teaching methods. By responding to the demands of students for an international experience it raises the quality of teaching by constantly cooperating with other universities.

It is also a good opportunity for the teaching staffs to recruit international students, even for subsequent collaboration (research activities, PhD) and simultaneously to increase the international reputation of the university (even the country itself).

4.   Online support of the collaborative programme and related mobility

As this program is realized by the students travelling from university to university and they only spend approximately 7-8 weeks at one place, the online support gains its importance in the time of homework and the evaluation procedures.

There is a password-protected page at www.femp.org (called a blackboard) which is a communication area for students and teachers. The grades are uploaded here and the evaluation process is also fulfilled in this site. The whole education program is evaluated by the student and the teachers though the so-called evasys (evaluation system) and the participants also have the opportunity to write here their additional personal impressions about the whole year.

5.   Added value of the programme

Added value of the partner collaboration in this programme *for your students*.

The students who have already attended any of the courses of EMMEP have described it as a very good experience travelling, learning, and living abroad with an international group of students. It is both an intercultural experience and a possibility to learn in other environments and get to know such techniques that are only available in particular parts of the world.

In such a course that is related to mining sites, mineral deposits or other natural formations this form of education is the best way to show the most important places in field trips. The students are able to collect data on sites and evaluate them with different techniques available at the partner universities. The access to specific infrastructure laboratories, libraries, facilities is also provided easily with this course.

The main added value of this course for the students lies in the industry. The extractive industry in the European Union is highly regulated. EMMEP seeks to inculcate students from all parts of the world with the highest professional, academic and technical standards as these pertain to regulations, environment and health and safety. These individuals will be among the future leaders of their countries.

Added value of the partner collaboration of this collaborative programme *for your institution*

With the help of this program our university can get into the European circuit and become renowned worldwide for the industry and educational system.

As part of the FEMP our institution gets into a daily contact with the world's largest extracting companies from Canada to Australia. Through this relationship our institution learns the needs of the companies in applied research and education. Job and student practice opportunities reach us from any part of the world.

Besides the good relationship with the cooperating partner universities there are other partner institutions that have good relationship with our institution. The world's leading Mining Schools are among them, e.g. Colorado School of Mines (USA).

6.   Sharing within the networked curriculum

The course materials are available for the students on the websites of the involved departments of each Partner University or on the blackboard platform – it depends on the University. The exams are performed as oral presentations and via internet, filling a test.

The access to the libraries and laboratories of the partner universities is provided for the students and field trips are organized for the group creating a wider approach to their professional fields.

European Geotechnical and Environmental Course 2010-2011
(on field – left; at the University of Miskolc – right)

European Mining Course   European Mineral Engineering Course
2010-2011   2010-2011