



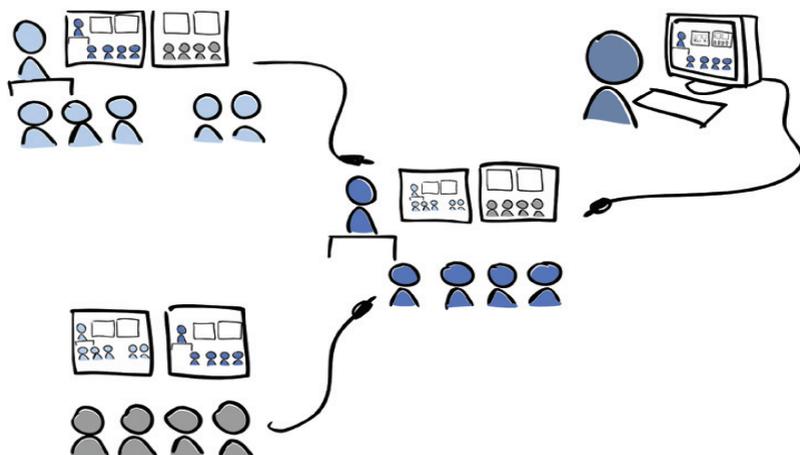
BeingMobile

Socrates

EUROPEAN COOPERATION IN EDUCATION THROUGH

Virtual Mobility

A BEST-PRACTICE MANUAL



Edited by Helena Bijmens, Machteld Boussemaere,
Kamakshi Rajagopal, Ilse Op de Beeck & Wim Van Petegem (EuroPACE ivzw)

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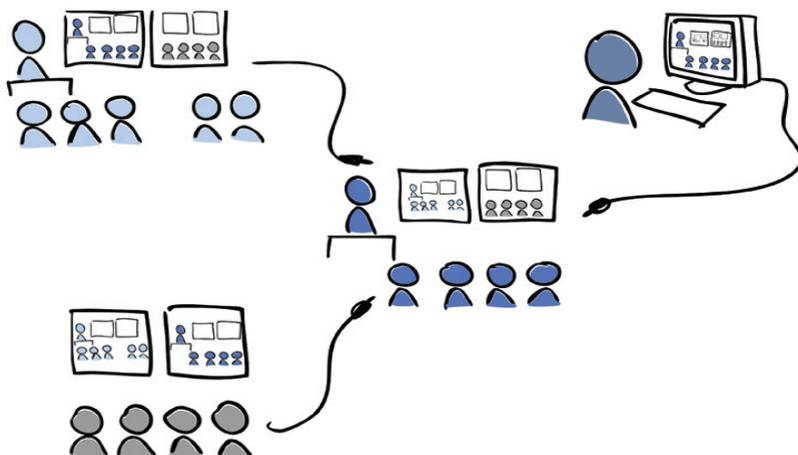
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EXECUTIVE SUMMARY

According to the elearningeuropa portal, Virtual Mobility means:

The use of information and communication technologies (ICT) to obtain the same benefits as one would have with physical mobility but without the need to travel¹.

Indeed, through the use of ICT, students and teachers can experience international exchanges of expertise while staying at home. As mobility and internationalization are becoming increasingly important in today's society, this is a significant evolution for those not able to enjoy any physical exchange.

The Being Mobile team defines Virtual Mobility in Higher Education Institutions as follows: Virtual Mobility is a form of learning which consists of virtual components through an ICT supported learning environment that includes cross-border collaboration with people from different backgrounds and cultures working and studying together, having, as its main purpose, the enhancement of intercultural understanding and the exchange of knowledge.

Based on these elements, this publication selected 16 examples of Virtual Mobility activities and 19 Virtual Mobility projects in order to find out the advantages and challenges of Virtual Mobility and come to conclusions and recommendations. For the 16 Virtual Mobility activities a categorisation was made, based on the type of activity. For each category, next to a short description of some relevant activities, one best-practice example was described in a more elaborate way: The Cinema & Literature Course (Virtual Course or Seminar Series, Collaborative), the Space e-learning courses (Virtual Course or Seminar Series, Non-Collaborative), E-Urbs (Virtual Study Programme), Kremlin (Virtual Student Placement) and the Erasmus Mundus Programme (Virtual Support to Physical Exchanges).

¹ http://elearningeuropa.info/index.php?page=doc&doc_id=5906&doclng=6&menuzone=1

Nine of the described Virtual Mobility projects have been supported by the Minerva Action of the Socrates programme (VM-Base, Esmos, iCOLL, EVBS, CAB, INTERN, SPOT+, EuroClass, NetCampus), the other ten described best practice projects by the e-learning Programme of DG Education and Culture (Venus, EVICAB, REVE, MASSIVE, Victorious, EVENE, E-MOVE, Plato, cEVU, UNiVe).

The main conclusion drawn from these best-practices and from the findings of two REVE workshops (June 2005 in Helsinki and June 2006 in Vienna) and the debates at the Being Mobile workshops (31 March 2006, Vilnius) was that, as Virtual Mobility is only a recent phenomenon, most of its 'disadvantages' have to do with organisational aspects. They should, however, not be seen as disadvantages, but as challenges that need to -and can- be solved:

In order to avoid many of these organisational problems related to Virtual Mobility, it is recommended that the arrangements for Virtual Mobility are as close as possible to those for physical ERASMUS, more specifically when it comes to agreements, accreditation & ECTS, fees and access to technology.

A coherent e-learning pedagogy on how to organise Virtual Mobility initiatives does not yet exist. The experiences described in this publication show us, for example, that students in general require more guidance and communication from and with their teachers. The assessment procedures are also not easy to design. They should be built not only on study results and products but even more on the study process.

Another conclusion is that the virtual components in mobility activities should be well thought through since they have a huge impact on the pedagogy, the support, the assessment procedures and the practical organisation of collaborative activities. The technological infrastructure needs to be optimal and the envisaged activities should be adapted to the level of IT skills of learners and teachers. Appropriate training and support is needed as well.

Thanks to its community support, the European Commission gives pioneer practitioners and pilot projects the opportunity to demonstrate the benefits of Virtual Mobility. We conclude that only when all

stakeholders (staff, students, management in institutions and policy makers) recognise these advantages, Virtual Mobility initiatives can be integrated in mainstream education and become sustainable in the long term.

INTRODUCTION

Because of the importance of Virtual Mobility, several educational Virtual Mobility initiatives have been conducted in different countries in recent years, largely independent of one another. But when such an activity or project comes to an end, what is the next step, if any? Large numbers of educational staff remain unaware as to the opportunities afforded through different kinds of Virtual Mobility and important project outcomes including guidelines, procedures, pedagogical models, manuals and handbooks do not enjoy the take-up they deserve. As a consequence, those managing the many existing and emerging virtual higher education initiatives at regional and national level tend to “reinvent the wheel” over and over again.

This leads us to propose that project results in this domain need to be disseminated far more extensively than they have been up to now. It is the only way to ensure that Virtual Mobility initiatives move from pilot level activities with limited scope to mainstream education. This brings us to the purpose of this publication: to disseminate the outcomes of past and current projects in the field of Virtual Mobility to the wider educational community.

The first chapter provides information about the background of this publication, starting with the background of the project “Being Mobile”, which is responsible for this manual. The concept of Virtual Mobility is introduced in the second chapter, which begins with a description of the link between physical mobility and Virtual Mobility. The role and relationship to the Bologna process is also described in this chapter. In the third chapter, a categorisation of different types of Virtual Mobility activities is introduced. Here the grounds on which this categorisation is made are discussed, as well as a detailed explanation of each category. The next chapter builds further on this by giving an overview of best-practice examples for each of the categories mentioned in the third chapter. Short descriptions of several other related activities can also be found in the fourth chapter. These activities are usually conducted in the framework of a project and so the fifth chapter provides a description of several Virtual Mobility projects, subdivided into current

and previous Virtual Mobility projects. The final chapter provides an overview of what we consider to be the advantages and positive aspects of Virtual Mobility along with an overview of the challenges that can be faced when putting into practice a Virtual Mobility scheme. This chapter also provides a set of recommendations worth taking into account when setting up such schemes.

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BACKGROUND OF THIS PUBLICATION



1.1 PROJECT BACKGROUND

Being Mobile is a one year European Project promoting the concept of Virtual Mobility. It began on 1 December 2005 and is an Accompanying Measures project supported under the Socrates Programme. Its aim is to raise awareness as to how European cooperation in education can be heightened through Virtual Mobility. Being Mobile is coordinated by EuroPACE ivzw (BE). The partners are ATiT (BE), SPACE (BE), ICWE gmbh (DE) and Tietgen Skolen (DK). Its targeted activities include: the publication of a best practice handbook, a website, a workshop, a conference and evaluation, dissemination and management activities.

PUBLICATION

The project includes the publication of a handbook on the subject of Virtual Mobility. It includes short summaries of innovative and model projects or initiatives, including those presented at the two conferences, with a specific focus on replicable outcomes. A first version of the handbook was presented at the Vilnius workshop “Bridging the gap between business and business schools – Being Mobile” that took place on 31 March 2006, jointly organised by the Being Mobile team and the SPACE network.

This handbook is the second, more elaborated version of the publication as proposed in the project work plan. Both handbooks are available to the participants of the Vilnius workshop and the Virtual Mobility Forum in Berlin. They are also available to the members of those educational networks who support the project proposal. Participants attending other smaller dissemination activities linked to the Being Mobile project receive a copy as well.

The Being Mobile handbook can be downloaded for free at <http://www.being-mobile.net> .

WEBSITE

The Being Mobile website <http://www.being-mobile.net> acts as a 'Virtual Centre of Excellence', a one stop-shop for those looking for information about and good practices of Virtual Mobility. This website contains the existing manuals, educational strategies, handbooks, articles and multimedia resources that have been created during past projects and initiatives linked to Virtual Mobility. These resources are kept up to date and are completed as the project evolves. It also contains a short description of the Being Mobile partners and a list of forthcoming events.

WORKSHOP "BRIDGING THE GAP BETWEEN BUSINESS AND BUSINESS SCHOOLS – BEING MOBILE"

On 31 March 2006 the Being Mobile team and the SPACE network jointly organised a workshop in Vilnius. This event included presentation sessions, panel discussions and networking opportunities on the links between Business Education, Industry and Virtual Mobility. As well as demonstrating best practices from Higher Education, the concept of "Internationalisation at home" was discussed which included an emphasis on student preparation, curriculum design and virtual internships. The workshop addressed the following themes:

- How to be active in the process towards a European Higher Education Market - the link between industry and education
- Internationalisation at home
- How to prepare students, faculty and institutions for Internationalisation at home and Virtual Mobility

The Vilnius Being Mobile workshop was integrated in a programme of the SPACE network covering their Annual Plenary Meeting and Professional Sections Meetings.

VIRTUAL MOBILITY FORUM “EUROPEAN COOPERATION IN EDUCATION THROUGH VIRTUAL MOBILITY”

A Virtual Mobility forum has been organised at the Online Educa Berlin conference on 28 November 2006. The theme of this forum was ‘European Cooperation Through Virtual Mobility’. It covered topics such as virtual student and staff exchanges, preparatory and follow-up activities of Erasmus-students, joint course development and delivery and, to a lesser extent, virtual internships. The Forum was jointly organised by the Being Mobile and VICTORIOUS project teams. The Forum included demonstration and best-practice sessions from all education and training sectors. These best-practices were chosen partly from previous Socrates projects and partly from existing innovative initiatives that address the themes reflected in the Being Mobile project. The report of the round table discussions that took place at this Forum has been made available on the Being Mobile website. During the forum, a new page in Wikipedia for ‘virtual mobility’ was created, mainly containing these round table discussions outcomes.

EVALUATION

The purpose of the evaluation was to be process and outcome oriented. The evaluation was both formative (improvement of managing processes) and summative (effectiveness of project, final reporting).

DISSEMINATION

The project activities and outcomes (workshop, the conference, the publication and website) were and still are promoted at national and international educational events and through mailings and publication of press releases in major educational portals, newsletters and websites of the supporting partners and networks.

MANAGEMENT

The overall coordination of the project is taken care of by EuroPACE ivzw, a trans-European network of universities and their partners in education and training, i.e. private enterprises, regional and professional organisations and public authorities. EuroPACE ivzw has

a long history in research and development in technology-supported teaching and learning, as well as in the coordination of international research projects.

1.2 AUTHORS

Editors and main authors of this report are Helena Bijmens, Machteld Boussemaere, Ilse Op de Beeck, Kamakshi Rajagopal and Wim Van Petegem from EuroPACE ivzw (BE).

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For the description of the projects and activities and for the recommendations, input has been received from the cEVU, EuroClass and Intern manual, as well as from the REVE Vilnius paper, the REVE manual and other REVE documents. We also received information from the coordinators of the projects described in this handbook.

The lay-out was done by Johannes De Gruyter (EuroPACE ivzw, BE) the image on the cover was designed by Sandy Claes (AVNet-K.U.Leuven, BE) .

1.3 COPYRIGHT

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INTRODUCTION TO VIRTUAL MOBILITY



2.1 PHYSICAL MOBILITY

Although physical student mobility is still marginal in Europe - in the academic year 2004 - 2005, a mere 0.9%² of European students (EUR18 countries) were pursuing their studies in another European country - it is clear that mobility is becoming increasingly important for educational policy makers. At the same time, universities and colleges are clearly placing more and more emphasis on the importance of internationalisation.

Mobility of students and academic and administrative staff is assumed to be a necessary prerequisite for an open and dynamic European educational area that will enhance European integration and labour market mobility (Thijssen, 2006)³.

This is born out by the fact that the European Commission has set a goal in its Integrated Action Programme in Lifelong Learning⁴ whereby in the year 2011, 3 million European students should participate in the Erasmus programme, which is about 20% of all European students. In the academic year 2004 - 2005, the number of European students who participated in the Erasmus programme was 144,037⁵.

But what about the remaining 80% of students: those students who do not have the opportunity to participate in Erasmus for social, financial or other reasons? Here too there has been tremendous interest in the idea of Virtual Erasmus or Virtual Mobility schemes. These would offer educational opportunities that are no longer location dependent and

2 Average percentage for 2004-2005 in the EUR18 countries: <http://ec.europa.eu/education/programmes/socrates/erasmus/statisti/chart4.pdf>; 0,4 % in the new member states and candidate countries: <http://ec.europa.eu/education/programmes/socrates/erasmus/statisti/chart5.pdf>

3 Thijssen, T. (2006) Towards a European Higher Education Market. Proceedings of the 17th SPACE Annual General Meeting (SPACE and Being Mobile Conference sessions and workshops). Vilnius, March 29 – April 1, 2006. p. 6-13.

4 Proposal for a decision of the European Parliament and the Council establishing an integrated action programme in the field of lifelong learning. Brussels, 14.7.2004. COM (2004) 474 final. (PDF file) http://europa.eu.int/eurlex/lex/LexUriServ/site/en/com/2004/com2004_0474en01.pdf.

5 <http://ec.europa.eu/education/programmes/socrates/erasmus/statisti/table1.pdf>

allow for collaboration with foreign students and teachers. These are opportunities where learners are able to take courses independently of their physical location, be it in their homes, their places of employment or while staying as an Erasmus student at a host university and taking a course from the home university or a third university.

2.2 VIRTUAL MOBILITY

In the words of the glossary of the elearningeuropa.info portal, Virtual Mobility means:

The use of information and communication technologies (ICT) to obtain the same benefits as one would have with physical mobility but without the need to travel⁶.

Virtual Mobility is made possible through ICT supported environments that include, for example, collaborative workspaces, computer mediated conferencing, live streaming and videoconferencing.

For Sylvia van de Bunt-Kokhuis (1996)⁷. Virtual Mobility means “the collaborative communication between a faculty member and his/her counterpart(s) mediated by a computer. More often, these meetings will be interactive and take place across national borders and across time zones” .

Bengt Nilsson (1999)⁸ from EAIE uses instead the concept of “Internationalisation at Home” or “IaH”. Internationalisation at Home is aimed at the majority of university students who do not go abroad for study or placements. IaH can provide an international and/or European dimension for this large majority of students. It aims to create a learning environment for non-mobile students to acquire a better understanding of people from different countries and cultures and increase their knowledge of and respect for their way of living.

6 http://elearningeuropa.info/index.php?page=doc&doc_id=5906&doclng=6&menzone=1

7 Van de Bunt-Kokhuis, S.G.M., *Academic Pilgrims: faculty mobility in the real and virtual world*. Tilburg, University Press, 1996. Excerpt at: <http://sll.stanford.edu/projects/tomprof/newtomprof/postings/272.html>

8 Nilsson, B. (1999), *Internationalisation at home – theory and praxis*. <http://www.eaie.org/pdf/intathome.asp>

Based on the elements mentioned in the above definitions, the Being Mobile team defines Virtual Mobility in Higher Education Institutions as follows: Virtual Mobility is a form of learning which consists of virtual components through a fully ICT supported learning environment that includes cross-border collaboration with people from different backgrounds and cultures working and studying together, having, as its main purpose, the enhancement of intercultural understanding and the exchange of knowledge.

2.3 THE BOLOGNA PROCESS

Virtual Mobility initiatives fit well in the context of the Bologna process⁹, which aims to create a European Higher Education Area (EHEA). One of the objectives of the EHEA is to facilitate interuniversity mobility and co-operation amongst universities. The e-learning Action Plan¹⁰ also stresses the importance of collaboration when it defines e-learning as “The use of new multimedia technologies and the Internet to improve the quality of learning, by facilitating access to resources and services as well as remote exchanges and collaboration”. The European Commission, as well as national agencies and individual institutions, have been actively promoting Virtual Mobility for quite some time, mainly through the financial support of projects within the SOCRATES/Minerva programme¹¹ and the e-learning programme¹². In the following chapters, we will provide concrete examples of Virtual Mobility activities that have taken place in the framework of these two programmes.

9 Confederation of EU Rectors’ Conferences and the Association of European Universities (CRE), The Bologna Declaration on the European space for higher education: an explanation, 2001, (PDF file) <http://europa.eu.int/comm/education/policies/educ/bologna/bologna.pdf>.

10 Communication from the Commission to the Council and the European Parliament, The eLearning Action Plan, Designing tomorrow’s education, Brussels, 28.3.2001, COM(2001)172 final, http://www.europa.eu.int/eur-lex/en/com/cnc/2001/com2001_0172en01.pdf.

11 The Minerva Action, http://europa.eu.int/comm/education/programmes/socrates/minerva/index_en.html

12 The eLearning Initiative, http://europa.eu.int/comm/education/programmes/e-learning/index_en.html

CATEGORISATION OF VIRTUAL MOBILITY ACTIVITIES



3.1 SELECTION

The activities described in this publication have been selected based on the definition of Virtual Mobility already given in the previous chapter. We have restricted ourselves to examples from the Higher Education sector. Our purpose is not to be exhaustive, but rather to provide examples of what we consider to be best practice in respect to how various technology applications have been used to support mobility.

3.2 CATEGORISATION OF THE ACTIVITIES

Virtual Mobility activities can be subdivided into several categories. This categorisation can be done in different ways, using different parameters and there is no generally accepted set of categories. Jose Silvio (2003)¹³, for example, categorises activities according to their use of virtualisation: totally virtual, partially virtual, dual or mixed. We did not use this distinction, because we focused on the virtual components of activities, independent of the degree to which activities are virtualised. For each activity described, we do, however, mention the degree of inherent virtualisation.

Another categorisation could be based on the technology used in each example. The possible tools, however, change and/or increase every day, which would soon outdate such a typology. We do, however, for each activity described, mention the technology used. A distinction between activities can also be made based on the teaching and/or learning scenario¹⁴ that has been used. These kinds of typologies focus, however, very strongly on the pedagogical aspects, which we considered too narrow an approach for this handbook.

We based our typology of Virtual Mobility activities mainly on the circumstances in which the Virtual Mobility activity takes place. In

13 Silvio, J. (2003) Global Learning and Virtual Mobility. In: Varis, T. Utsumi T., Klemm W.R. (eds.) (2003) Global Peace Through the Global University System. http://www.friends-partners.org/GLOSAS/Global_University/Global%20University%20System/UNESCO_Chair_Book/Manuscripts/Part_IV_Global_Collaboration/Silvio,%20Jose/Silvio_web/SilvioD9.htm

14 Typology of virtual campuses/universities. BENVIC project (Benchmarking of Virtual Campuses). <http://www.benvic.odl.org/typology.htm>

other words, we have mainly looked at the type of activity taking place. This provided us with four main types:

- A virtual course (as part of a programme) or seminar (series) at a Higher Education Institution
- A whole programme at a Higher Education Institution
- Virtual student placements
- Virtual support activities to physical exchange

In the following paragraphs, each of these types will be described and explained.

3.2.1 Virtual Course or Seminar (series)

This category focuses on the virtual course as part of a whole study programme at a HEI or a virtual seminar or seminar series, also in the framework of a HEI. Here, students (or citizens) only engage in Virtual Mobility for a single course or seminar (series) and the rest of their learning activities take place in the traditional way. We do not distinguish between a course or a seminar (series) because there are few differences in either the use and purpose of each. We divided this category into two subtypes:

- Collaborative arrangements
- Non-collaborative arrangements

We have borrowed this distinction from the UNESCO/Council of Europe Code of Good Practice in the Provision of Transnational Education (2001)¹⁵: Collaborative arrangements hold that parts of a course of study, seminar (series) or other educational services of

¹⁵ UNESCO/Council of Europe. (2001). Code of Good Practice in the Provision of Transnational Education; <http://www.unesco.org/education/studyingabroad/index.shtml>.

the awarding institution are provided by a partner in another country, while non-collaborative arrangements include branch campuses, off-shore institutions, corporate and international institutions whereby study programmes, parts of a course of study, seminar (series) or other educational services are provided directly by an awarding institution in one country to another country or countries.

The way in which the activity is organised, the extent to which it is collaborative or non-collaborative, influences the activity itself. In the following section, we will describe each subtype more specifically in the introductory section.

COLLABORATIVE ARRANGEMENT

By jointly developing and/or delivering a course, institutions can broaden both their expertise in that domain and the resources offered to students. Collaboration in course design and subsequent student support services have above all the potential for enriching the course material which otherwise is difficult for a single institute to achieve.

As already mentioned, according to the UNESCO/Council of Europe Code of Good Practice in the Provision of Transnational Education (2001), the collaborative arrangements are those where a course or seminar (series) of an awarding institution are provided by a partner in another country. The distinction is, in other words, based on who is awarding the activity. The following schemes illustrate what we understand by 'collaborative arrangements', which is somewhat broadened to illustrate how the collaboration can work.



Although the illustration might indicate an equal role for each partner, it is possible that one partner holds responsibility for all the administration, another partner for the course content and so on. The key fact is that all partners depend upon mutual collaboration for the realisation of the arrangement. In the next chapter, we will discuss the Cinema & Literature course as a best-practice example of this first subtype.

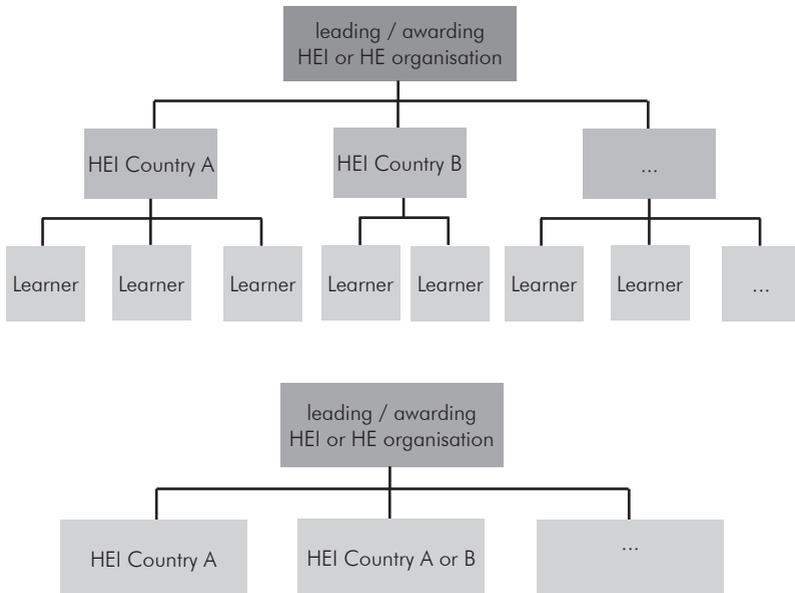
NON-COLLABORATIVE ARRANGEMENT

Following the UNESCO/Council of Europe Code of Good Practice in the Provision of Transnational Education (2001), non-collaborative arrangements include branch campuses, off-shore institutions, corporate and international institutions whereby study programmes, parts of a course of study, seminar (series) or other educational services are provided directly by an awarding institution in one country to another country or countries¹⁶.

This means that one HEI or HE organisation (e.g. several universities who have created a new organisation that provides in a course or seminar series) is leading the organisation for the course or seminar (series). Often these activities do involve a partnership, but then only

¹⁶ UNESCO/Council of Europe. (2001). Code of Good Practice in the Provision of Transnational Education. (<http://www.unesco.org/education/studyingabroad/index.shtml>)

for the distribution of the course or seminar (series) and/or adjusting the content to the local culture and language. The main difference lies in the fact that there is no mutual consultation between the different participating countries: all communication goes through the lead organisation. Illustrated, possible schemes are:



In the next chapter, the best-practice example of the SPACE e-learning Course offer is elaborated.

3.2.2 Virtual Study Programme

This second type of Virtual Mobility activity we describe is an entire virtual study programme at a HEI giving students from different countries the chance to take this study programme without having to go abroad for a whole academic year. In the next chapter, we will elaborate the European Master in Comparative Studies as a best-practice example of this type.

3.2.3 Virtual Student Placements

Having access to international experience is becoming vital for business students as the economy becomes increasingly global. Many Business Colleges offer students the opportunity to have placements abroad. But what about students who find it difficult to relocate to another country for a certain period of time? Using ICT to support some form of Virtual Internship with a foreign company is particularly suitable for these students. Virtual Internships also provide a practical preparation for new ways of working, where the use of tools like videoconferencing, and collaborative workspaces will be commonplace.

Student placements are organised between an institution and a company in a different country. Virtual placements in companies in particular give students a real-life experience in a corporate setting through international collaborative team work and enable the educational institution to internationalise its course offer and adapt it to the dynamics of the current economy.

3.2.4 Virtual Support Activities to Physical Exchange

Virtual Mobility opens up possibilities to both better prepare and follow-up students who take part in a physical Erasmus exchange. Student selection can take place via electronic means, such as videoconferencing or webconferencing, allowing teaching staff to put a face on a candidate and to check social and language skills. Later, a preparatory language and “cultural integration” course could be provided by the host institution supported via ICT.

At the end of the physical exchange, students can also keep in touch with their peers, scattered around the world, and finish their common research project, or paper work. They can also establish a so-called 'Virtual Alumni' organisation, to foster life-long friendships and networks.

BEST-PRACTICE EXAMPLES



In this chapter, one elaborated best-practice example and some brief descriptions of other best-practices are given for each of the categories described. Below, an overview is given of the best practice examples per category. To select these best-practice activities, the Being Mobile team searched for those activities that were or are being conducted by one of the partners. Once these were found, other Virtual Mobility activities were selected and described more shortly.

Each elaborated example will start with a short description, including the background and structure of the activity and when it took place. Furthermore the main partners will be mentioned, the technology used, the main features of the activity (synchronous or asynchronous communication, location (in)dependent delivery, virtual or blended...), specific experiences regarding language, culture, equipment, access, assessment and ECTS, and conclusions drawn from the activity. Each description ends by offering information about available resources linked to the example.

The brief descriptions of the other examples starts again with a short summary including the date, the main features (synchronous or asynchronous communication, location (in)dependent delivery, virtual or blended ...) and the technology used. Some practical information like the main participating institutions and information about further resources are given as well.



CATEGORY	BEST PRACTICE EXAMPLE
Virtual Course / Seminar (series) <i>(Collaborative)</i>	Cinema & Literature Course
Virtual Course / Seminar (series) <i>(Non-Collaborative)</i>	Space e-learning courses
Virtual Study Programme	E-Urbs
Virtual Student Placements	Kremlin
Virtual Support to Physical Exchanges	Erasmus Mundus Programme

Table 4.1 - Best Practice examples organised per category.

4.1 VIRTUAL COURSE/SEMINAR (SERIES) AT A HEI

4.1.1 Collaborative Arrangement

4.1.1.1 BEST PRACTICE: CINEMA & LITERATURE COURSE

■ DESCRIPTION

The Cinema & Literature course is an initiative of two teachers at the Catholic University of Leuven (BE) and at the University of Granada (ES). The course is taught at these two locations, by the two teachers to two groups of students (Leuven and Granada). The course with its virtual aspects was first given in the academic year 2001-2002. Before that, it existed as a 'normal', ex cathedra course in Leuven for about four-five years.

As a virtual course, students in Leuven and Granada follow the same syllabus, which has been made by the teacher in Leuven. For the students, the course is essentially self-study of the online material in combination with local contact hours. Discussions initiated during these local contact hours can be continued on the online discussion forums afterwards. The students are assessed on the cooperation demonstrated during the local contact hours, the online discussions and mainly a group assignment and an oral exam at the end of the year. Each group consists of 3 to 4 persons, ideally with an equal number of students from Leuven and Granada. Each group chooses a topic for the paper and works on the paper collaboratively on a virtual platform.

■ MAIN PARTICIPANTS

The course was essentially created through cooperation between two teachers at the universities of Leuven and Granada. In 2004, the partnership was extended to the Universidad Carlos III de Madrid. A partnership with the Université Catholique de Louvain (Louvain-la-Neuve, Belgium) is also being explored. Leuven takes a leading role in

the coordination of the activities.

■ TECHNOLOGY USED

The Virtual Learning Environment (VLE) consists of the GALATEA platform, with a WIKI, discussion forums and chat. At the beginning of the course there is only a general discussion forum available. After some time, this forum is divided into smaller forums according to the topics of the groups. With the use of a WIKI, the students write a small hypertext together which becomes their final paper for the course. There are two videoconferencing sessions as well, one at the beginning of the semester to create the international student groups and one at the end of the semester for the presentation of the final papers. Besides the VLE, students and teachers also use e-mail and chat for individual correspondence.

■ MAIN FEATURES (SYNCHRONOUS OR ASYNCHRONOUS COMMUNICATION, LOCATION (IN)DEPENDENT DELIVERY, VIRTUAL OR BLENDED)

The communication is both synchronous (the videoconferences) and asynchronous (the discussion forums). Because of the videoconferences, this activity is location-dependent: students have to go to a classroom to follow the videoconferences. The working in groups is location independent: students need only a computer and an Internet connection. Virtual teaching methods exist alongside traditional teaching methods which means that the activity takes a blended learning approach.

■ SPECIFIC EXPERIENCES (LANGUAGE, CULTURE, EQUIPMENT, ACCESS, ASSESSMENT & ECTS)

This course is characterized by multilingualism: the classes are given in the local language (Spanish in Granada and Dutch in Leuven). The original syllabus was written in French. It was then translated into Spanish and English. The material online is also available in these three languages. Students are allowed to correspond in the language of their own choice. The group papers are also written in the language of choice.

Some cultural differences are noticeable in the way students in Leuven

and Granada approach the course activities. These mainly surface in practical issues such as timing of discussions, approaches to group work and students' individual academic backgrounds. However, these differences can be overcome to offer both students and teachers involved in this course a most rewarding cultural experience.

There was no separate accreditation procedure for this virtual course, as the accreditation already existed for the ex cathedra course. It is a course of 5 ECTS credits, in Leuven as well as in Granada.

Even though there are many jointly organized activities in this course, the teachers have not yet tried joint assessment. Each teacher assesses the students at his/her own university and is not involved in the assessment of students at the partner universities. The teachers are considering working towards joint assessment.

■ CONCLUSIONS DRAWN

The Cinema and Literature course is a very good example of a (semi-)virtual course based on a collaborative arrangement. Parts of the course are organized by the partner university but the assessment and awarding of credits stays at the local university. This course is built on the personal contacts that exist between the teachers. It is very important to have good contacts amongst the collaborating teachers. It is also important to keep a good mix of working methods: virtual teaching methods should exist alongside traditional teaching methods. In that sense, this is not a virtual course, but a virtualized course. Virtual moments without contact moments are not really possible.

The teachers' experience shows that these kinds of courses are very pleasant to organize but you cannot replicate this approach for all courses. One such course per semester is enough for teachers and students. Finally, students generally need the same type of guidance in virtual as in traditional teaching, but virtual guidance takes more time. This means that the teacher usually spends more time working individually or with each group.

■ AVAILABLE RESOURCES

The website of the VLE is <http://www.galatea.be/>.

Rajagopal, K, Op de Beeck, I. and Pérez, I., REVE Report of interview with Jan Baetens and María Sánchez Montes, Cinema and Literature, AVNet, Catholic University of Leuven and University of Granada, 21.10.2005. More information on this course can be found by contacting the teachers¹⁷ of this course.

4.1.1.2 OTHER EXAMPLES

EUROPEAN VIRTUAL SEMINAR ON SUSTAINABLE DEVELOPMENT

■ DESCRIPTION

The European Virtual Seminar on Sustainable Development or, to use its familiar acronym, EVS, focuses on sustainable development in the context of an enlarging European Union. Multidisciplinary and international compound student groups of 4-6 members work together on a group report and a policy summary for 4 months, representing a 120 study hours. Credit points are given by each institution independently. Students communicate synchronously as well as asynchronously through a forum and a chat on the Internet. This course has been run completely virtually, as there were no physical contact points foreseen in the programme.

In 2001 a first pilot was launched with almost 60 students from 9 different institutions in 4 European countries. Based on this pilot the design was improved and more institutions got involved. In 2002 the first formal course was launched with almost 45 students from 11 different institutions in 5 European countries. In 2003 the EVS started with 70 students from 15 institutions in 10 different European countries.

17 Prof. Jan Baetens at the Catholic University Leuven (<http://www.kuleuven.be>), Prof. Domingo Sanchez-Mesa at the Universidad Carlos III de Madrid (<http://www.uc3m.es/>) and Prof. Maria Sánchez Montes at the University of Granada (<http://www.ugr.es>)

■ PRACTICAL INFORMATION

The following institutions took part in this course: Open Universiteit Nederland (NL), Copernicus-Campus (DE), University of Amsterdam (NL), Vrije Universiteit Amsterdam (NL), University of Antwerp (BE), University of Lüneburg (DE), Karlstad University (SE), Karkonosze College (PL), Wrocław University of Agriculture (PL), Wrocław University of Economics (PL), Wrocław University of Technology (PL), Charles University Prague (CZ), Czech University of Agriculture Prague (CZ), University of Bucharest (RO), University of Bologna (IT), University of Extremadura (ES).

The European Virtual Seminar is still running, more information can be found on the website: <http://blackboard.ou.nl/evs/>¹⁸

INTERNATIONAL STUDENT BUSINESS GAME

■ DESCRIPTION

The International Student Business Challenge is set up as a game in which student groups create fictitious companies and compete with each other on an economic market. At the local institutions, participants are divided into groups of 4-8 students to make up a virtual company (name, logo, etc.). There are up to 9 companies in a market and the simulation can be done in several markets at a time. The game has a national and an international part. In the first part, teams compete locally in fictional markets in their own institutions. The winning teams of the national games move on to the second international part. The final event of the international competition is a videoconference session where all international teams present their company and are evaluated by an international jury consisting of instructors and local business representatives.

The game is played online through a central website. All supporting course material is also available online to the instructors in all

¹⁸ Contact person: Ron Cörvers at the Open University of the Netherlands (<http://www.ou.nl/>)

participating institutions. Videoconferencing is also used in this course in several ways. It is used during the game to present a lecture from the coordinating institution. The instructors use videoconference for regular discussions and updates during the semester. Finally, as already mentioned, videoconferencing is also used intensively during the final event, when all international teams present their work to an international jury.

As all communication takes place through videoconferencing, it is synchronous and location dependent. This is a blended activity, because the students also cooperate face-to-face within their group. The final event of the game is organised via videoconference.

■ PRACTICAL INFORMATION

The International Student Business Challenge was organized in the second semester of the academic year 2005-2006. The project partners in the International Student Business Challenge were: Katholieke Hogeschool Kempen, Geel (BE), Piramk Business School in Ikaalinen (FI), College of Management and Public Administration in Zamosc (PL), Escola Superio de Comunicação Social in Lisbon (PT), Katholieke Hogeschool Brugge/Oostende in Brugge (BE), Katholieke Hogeschool Leuven (BE), Katholieke Hogeschool Mechelen (BE) and Katholieke Hogeschool Kempen, Turnhout (BE). More information can be found on the International Student Business Challenge website: <http://www.businessgames.org/>¹⁹.

Rajagopal, K. and Op de Beeck, I. Report of interview with Marieke Van Beylen and Johan Smeuninx, International Student Business Challenge, AVNet, Catholic University of Leuven, 18.11.2005.

VENUS SEMINARS

19 Contact person: Marieke Van Beylen and Johan Smeuninx at Katholieke Hogeschool Kempen (<http://www.khk.be>)

■ DESCRIPTION

The VENUS project has set-up a virtual “Faculty of Extension” in the partner universities in terms of geography, target group and teaching methods. It achieves this by offering “international – regional” virtual seminars on various relevant topics for today’s Europe which are open to all citizens. Virtual means are used to deliver the contents and to support interaction and collaboration. A virtual seminar series featuring well-known experts in various different fields is organised during the 2006-2007 academic year. Each seminar is supported by interactive preparatory and follow-up activities.

During each seminar, a number of European and other universities are connected via videoconference. Each seminar consists of a short lecture given by an expert on a particular topic, a local discussion at each of the participating sites (chaired by a local expert working in a related field) and a central debate made possible via videoconference amongst all participating sites. The seminars are also delivered through live streaming to participants around the world, with online interaction possible.

The interactive preparatory activities as well as the follow-up activities are supported by technologies such as WIKI, forum, chat, etc. The preparatory and follow-up activities are both synchronous (chat) and asynchronous (WIKI and forum). The seminars are synchronous, because they are delivered live. They are, however, made available online afterwards as well, which makes them also asynchronous.

The delivery of the seminars is both location-dependent (the seminars are delivered through videoconferences in several countries), as well as location-independent (they are also available through live-streaming). The videoconferences of these seminars at each location are accompanied by discussions with local experts, which makes this activity for those who participate in the videoconferences, a blended learning activity.

■ PRACTICAL INFORMATION

The VENUS seminars are being organized in the academic year 2006-2007. The participating higher education institutions and other organisations are: EuroPACE ivzw (BE), Catholic University of Leuven (BE), ATiT (BE), University of Cologne (DE), Helsinki University of Technology (FI), University of West-Hungary (HU), West-Pomeranian Business School (PL), Technical university of Kosice (SK), and Consorzio NETTUNO (IT). More information can be found at <http://www.venus-seminars.net/> and <http://www.venus-project.net/>²⁰.

EHLEE PILOT COURSE

■ DESCRIPTION

The “Identities in European History” pilot course (5 ECTS) finished at the end of January 2006 after three months of hard work. The course was held on an Internet-based learning platform WebCT and in local study groups. Each student had two tutors, a local and an international tutor. All this was part of the Ehlee project: eHistory Learning Environment and Evaluation.

The communication was both synchronous and asynchronous and the delivery was both location dependent (the local study groups) and independent (students were free to access the learning platform from wherever they wanted). It was a blended learning activity: there were local student groups and an online learning platform.

■ PRACTICAL INFORMATION

Participants of this course were the universities of Alcalá (ES), Bologna (IT), Cork (IE), Hannover (DE), Pisa (IT), Siegen (DE), Turku (FI), Uppsala (SE), and the Finnish Virtual University of History (FI). More information can be found on <http://ehlee.utu.fi/pilot.htm>²¹

20 Contact person: Bieke Schreurs and Helena Bijmens at EuroPACE ivzw (<http://www.europace.org>)

21 Mail to ehlee@utu.fi for more information

MICROWAVE TRANSISTOR POWER AMPLIFIERS COURSE

■ DESCRIPTION

This course is specially designed for the postgraduate students of electrical engineering at the Warsaw University of Technology. It is virtually taught by two Italian teachers from Università di Roma Tor Vergata.

All course materials and information and teacher announcements are made available on the portal site of the Centre of Distance and Open Education. It enables registration, access to mailing lists of the course participants, materials for the course and assessment information. All information is password protected, which means that only the participants of the course have access to it.

Continuous contact with teachers is supported by e-mail and chats. Two videoconferences are also organised to give the Polish students the opportunity to ask questions to their Italian teachers. Therefore, the communication is both synchronous (videoconference, chat) and asynchronous (e-mail). The delivery is both location dependent (the videoconferences) and independent (students are free to access the learning platform from wherever they wanted).

It is a blended learning activity: Alongside the virtual contact with the Italian teachers, there are also face-to-face contact opportunities, e.g. during the final assessment.

■ PRACTICAL INFORMATION

The Microwave Transistor Power Amplifiers course was first given in the academic year 2003 - 2004. The course is a result of cooperation between Università di Roma Tor Vergata (IT) and Warsaw University of Technology (PL). More information about this course can be found on the following websites or by contacting teaching staff²² at the partner institutions.

²² Prof. Bogdan Galwas or Ms. Elzbieta Piwowarska at the Warsaw University of Technology (<http://www.pw.edu.pl/english/>)

CODE – WUT: <http://www.okno.pw.edu.pl/OKNO/doktorant/index1.htm>

EIT – WUT: <http://www.elka.pw.edu.pl> (in Polish)

OPEN GI SYSTEMS COURSE

■ DESCRIPTION

The Open GI System course develops theoretical and practical professional competencies in the field of Open Geographic Information Systems (Open GI Systems). It is an e-learning course provided by the Faculty of Geoinformatics in Szekesfehervar (University of West Hungary). There is a course team at the provider university in Szekesfehervar made up of tutors, e-learning specialists, and organisational staff. The students from partner universities from different countries join the course individually via their own institution and all students follow the same syllabus made by UNIPHORM project partners.

The course is fully online without any face-to-face elements except for the Erasmus students at the University of West-Hungary. The tutor meets the students regularly in virtual form using forums, chats and videoconference tools. These virtual meetings are not lectures in a traditional way but open discussion sessions between students and the tutor on a topic announced in advance. The students can also interact with each other virtually through online communication and collaboration tools on their own initiative. The students submit all tasks virtually and the submission of exercise and final paper (essay) is a compulsory condition before final assessment. The final assessment is a videoconference session, where the students present the topic chosen for the essay to the course tutors.

The course does not run at specific times during the year, but can be followed at the student's own convenience, making it very flexible. This means that exchange students can start the course before they go on exchange and continue it while abroad.

This course is completely virtual with both synchronous and asynchronous communication. The course can followed be anywhere,

therefore making it location-independent.

■ PRACTICAL INFORMATION

The course originates in the UNIPHORM project (1998-1999), when it was part of an accredited education programme UNIGIS. It has existed as an individual course with an agreement on credit transfer between the partner universities since then and is continuously being adapted to include newer forms of communication and collaboration technologies. More information can be found on the websites or by contacting the teachers²³: <http://www.geo.info.hu/en/>; <http://www.vgeo.hu/>.

²³ Prof. Béla Márkus and Ms. Veronika Bleyerova at the University of West-Hungary (<http://www.geo.info.hu/en/>)

4.1.2 Non-collaborative Arrangement

4.1.2.1 BEST PRACTICE: SPACE E-LEARNING COURSES

■ DESCRIPTION

The SPACE network has developed 3 e-learning courses in the field of European studies: the Space e-learning courses contain 10 obligatory online/ blended learning lessons. The European Studies: Intercultural Communication course has in addition 21 optional lessons. It addresses how to do business in 25 European countries focusing on: oral communication, written communication, negotiation, and values in each country. The SPACE e-learning courses have been running since 2000.

■ MAIN PARTICIPANTS

The partners are the SPACE institutions and associated members of the network. SPACE was created in 1989 through the active co-operation between 5 higher education institutes in 5 European countries (Spain, France, Germany, Ireland, and Belgium). Since then, the SPACE network has been steadily growing to more than 60 members, with a representation in 25 countries all over Europe.

■ TECHNOLOGY USED

The SPACE Dokeos system is the technological platform for the courses. It is an alternative conference system with elaborated facilities like mailing and forum function. Guest lecturers from the SPACE network can, for example, be involved using videoconferencing. For the development of the courses almost all the communication was by e-mail and through the discussion forum set up for ICC on Dokeos.

- MAIN FEATURES (SYNCHRONOUS OR ASYNCHRONOUS COMMUNICATION, LOCATION (IN)DEPENDENT DELIVERY, VIRTUAL OR BLENDED ...)

Communication is mainly asynchronous (e-mailing and forum), but at times also synchronous (videoconferencing). This means that most of the content delivery is location independent, through the Dokeos platform, which can be accessed everywhere. The videoconferences, however, are location dependent. These courses are almost completely virtual.

- AVAILABLE RESOURCES

The SPACE Dokeos platform <http://space.hogent.be> (access only for members). Websites: <http://www.space-eu.info> and <http://users.skynet.be/space>.²⁴

4.1.2.2 OTHER EXAMPLES

LIVIUS PILOT MODULES

- DESCRIPTION

In the framework of the Livius project (Learning in Virtual Integrated University System, 2002), the courses “Signal Theory” and “Programming Techniques”, belonging to the common curriculum designed for the degrees of telecommunication engineering and computer engineering were videotaped and broadcast to the partners in four different languages.²⁵

Different technologies were used for this course: videolessons were broadcast on two NETTUNO satellite channels, there was a

²⁴ Contact person: Greta Vandeborne at SPACE ivzw (<http://www.space-eu.info>)

²⁵ Background information about the Livius project can be found in “Going the Distance with e-Learning”, by Maria Amata Garito: http://e-mentor.edu.pl/_xml/wydania/3/37.pdf and in the “Report on the project scientific value and validity” http://www.ub.es/grintie/GRINTIE/Library/LIVIUS_D15.pdf

technological didactic platform on the Internet, a chat system with both video and audio was set up, a common forum and video conferencing were all used for communication.

There was both synchronous (videoconferences, videolessons) and asynchronous (forum) communication. This activity was mainly location-independent: most lessons could be followed by TV and PC, and the activity was totally virtual: The tutors guided their learners using chat and forum.

■ PRACTICAL INFORMATION

The following institutions took part in this activity: Consorzio NETTUNO (IT), Cambridge Universities (UK), CNED Centre National pour l'Enseignement à Distance (FR), Université Franco-Italienne (FR), Institut National des Science Appliquées de Toulouse (FR), Eutelsat (FR), Groupe CYBEL- Strategy and Knowledge Management (FR), Giunti Ricerca (IT), Getronics (IT), Universitat Oberta de Catalunya (ES), Universitat de Barcelona (ES), National technical university of Athens (NTUA) (GR), National Centre for Scientific Research NCSR "Democritos" (GR).

<http://www.uninettuno.it/Livius/Ing/Project/Project.htm>

VIRTUAL SEMINAR SERIES OF THE "WORLD CLASS FACULTY"

■ DESCRIPTION

The "World Class Faculty" (social policy, green chemistry, china...) from the Worldwide Universities Network (WUN), offers a series of seminars. The recordings of these events and the associated material is made available to help internationalise the curriculum in the partner institutions and to ensure that students located anywhere can access learning materials from world class faculty despite the constraints of time and geography. The virtual seminars began in 2003 and have been in operation since then. The activity is location independent and totally virtual.

■ PRACTICAL INFORMATION

The Worldwide University Network is an international alliance of 16 research-led higher-education institutions of high standing who have created a worldwide research and education partnership to generate significant advances in knowledge and understanding. The following institutions took part: Universities of Bergen (NO), Bristol (UK), California (USA), Illinois (USA), Leeds (UK), Manchester (UK), Nanjing (CN), Oslo (NO), Pennsylvania (USA), Sheffield (UK), Southampton (UK), Utrecht (NL), Washington (USA), Wisconsin (USA), York (UK), Zeijang (CN)²⁶

<http://www.wun.ac.uk/virtualseminars.php>

SEARCHING FOR SCIENTIFIC INFORMATION

■ DESCRIPTION

The “Searching for Scientific Information” course was developed at the library of the Helsinki University of Technology. The aim of this course is to acquaint students with the most important scientific information sources within their field, to help them select and search efficiently for both printed as well as electronic information and to make students aware of information evaluation methods. The library’s seven information specialists act as tutors for the course. All these tutors have their own area of expertise. The average size of a group tutored by one information specialist is about 10-20 students.

In 2005 - 2006, the course has been transferred and adapted to the local situation of Catholic University of Leuven. Library staff at this university have been working on adapting the course material to the specific resources available at Catholic University of Leuven.

The study material is completely online: The lecture slides as well as all the information related to the course are available on the course website. E-mail is the communication tool used by students to return assignments and ask questions, and for the tutor to give instructions,

²⁶ Contact person: Arve Aleksandersen at the University of Oslo (<http://www.uio.no>)

feedback and support. A virtual learning environment has been tested for these purposes, but the organisers of this course feel that e-mail is a better medium because of the shortness of the course and its easy accessibility and ease of use.

To work through the course does not require a visit to the physical library, but students are welcomed to do so, for example, some hours are reserved in the library for answering the students' questions face-to-face. This means that the communication for this activity is mainly asynchronous and the course material delivery is location-independent, but students can choose for face-to-face contacts. In other words, they have a choice between a totally virtual or a blended learning activity.

■ PRACTICAL INFORMATION

This course has been developed at the Helsinki University of Technology's library for over 20 years. In 1994, it was possible for students to access the course completely online for the first time. In 2006, the course was transferred and adapted to the local situation in Catholic University of Leuven. More information can be found on the websites or by contacting the library staff²⁷ at either university:

<http://lib.hut.fi/Opetus/Informatiikka/english/index.html>

<http://www.wbib.kuleuven.ac.be/eunite/index.html>

NET-TRAINERS

■ DESCRIPTION

Net-Trainers is an Online Distance Learning Course which aims to equip tutors/trainers with the skills to teach online using online technologies. The course is delivered simultaneously in nine different countries, and the course contents have been adapted to recognise the educational context and culture of each individual country. The Net-Trainers course (160 hours) is delivered entirely online and contains 5 modules. The course assessment is also online.

²⁷ Irma Pasanen at the Helsinki University of Technology (<http://www.tkk.fi/English/>) and Linda Stoop at the Catholic University Leuven (<http://www.kuleuven.be>)

The pedagogical methodology makes use of online individual and collaborative work, mostly using web-based content and asynchronous communication technologies. The average learning time requested is 6 to 10 hours a week. Participants may choose to work 2 hours every day during the week or 1 day a week or even 2 days every two weeks. Participants and their tutors agree on work schedules, feedback response times and deadlines for assignments.

If the training provider has the capacity, trainees can have professional placements for certain time periods in their Net-Trainers training path, to test their new competencies in a real life environment.

■ PRACTICAL INFORMATION

The following institutions are participating in this course: Center for Vocational Training, Pernik (BG), University of West Bohemia (CZ), Monnet Gruppen (DK), ID3 Association (FR), Université de Toulouse 1 (FR), Tele-akademie of Furtwangen University (DE), University Macerata (IT), Polish Virtual University, Lulin (PL), University of Valencia (ES), South Yorkshire Further Education Colleges (UK). Net-Trainers was developed as a Leonardo da Vinci II programme project, funded by the European Commission and is still running:

<http://www.nettrainers.org/en/index.asp?p=1-1>

4.2 VIRTUAL PROGRAMME (AT A HEI)

4.2.1 Best-Practice: E-Urbs

■ DESCRIPTION

Starting in 2006, E-Urbs is a European Master course on Comparative Urban Studies worth 60 ECTS. Its extensive online teaching and tutoring – together with an intensive summer school each year in Urbino – aims to provide an innovative and truly international learning environment in Europe. E-Urbs is based on the extensive experience of nine European prestigious universities who provide a deep knowledge of the main theories in the field of urban studies. Its multidisciplinary and international character, emphasized by its comparative approach and a specific training opportunity in the field, helps students develop the ability to interpret and understand urban changes and to analyse appropriate strategies and policies to address metropolitan problems.

The main objective of E-Urbs is to create a “virtual international campus” arrangement for the study of urban issues. Thanks to this kind of organisation, it is possible to take advantage of the experience and competence of the most well-known scholars in the field at an international level, whilst at the same time offering the opportunity to develop a comparative approach in the study of distant and different urban realities and policies.

■ MAIN PARTICIPANTS

University of Urbino (IT), University of Amsterdam (NL), University of Barcelona (ES), University of Berlin Humboldt (DE), University of Milan Bicocca (IT), University of Birmingham (UK), University of Copenhagen (DK), Catholic University of Leuven (BE), Polish Academy of Sciences (PL).

■ TECHNOLOGY USED

Traditional ICT distance learning techniques are complemented with new visual and heuristic approaches.

■ MAIN FEATURES (SYNCHRONOUS OR ASYNCHRONOUS COMMUNICATION, LOCATION (IN)DEPENDENT DELIVERY, VIRTUAL OR BLENDED ...)

E-Urbs has developed an integrated blended mode learning system, based on the integration of virtual and physical mobility and the use of ICT, supporting new methods of interaction. The blended approach complements online teaching with face-to-face teaching. This allows students and professors to meet face-to-face and to increase the efficiency of the learning process in the subsequent online interactions. A first summer course in Urbino, organised in the month of August is followed by online courses.

■ SPECIFIC EXPERIENCES (LANGUAGE, CULTURE, EQUIPMENT, ACCESS, ASSESSMENT & ECTS)

Because this activity has just begun, there are no specific experiences to report yet.

■ CONCLUSIONS DRAWN

Because this activity has just begun, no conclusions can be drawn just yet.

■ AVAILABLE RESOURCES

<http://www.e-urbs.net/>

4.2.2 Other Examples

MASTER PROGRAMME IN DEVELOPMENT MANAGEMENT

■ DESCRIPTION

“Development Management” is the first masters programme to be launched under the Global Environment and Development Studies (GEDS). The Master Programme in Development Management is a four semester study programme, worth 120 credits.

On-line learning (e-learning) forms the basic teaching method for the study programme. This implies that a substantial part of teaching, instruction, tuition and supervision will take place on the Internet. As the underlying pedagogy takes a social constructivist approach, group work, discussions and joint assignments are important, implying that an active participation among the students is essential. The beginning of each year will start with a face-to-face session of two weeks where students, professors and tutors will meet.

■ PRACTICAL INFORMATION

GEDS will be implemented by a network of universities from the South and the North coordinated by the United Nations University/Global Virtual University (UNU/GVU). It is expected that some of the courses in the master programme in development management will be given by UNU, UNEP and/or other partners in the GEDS network.

<http://www.hia.no/oksam/english/mdevm/index.php3>

4.3 VIRTUAL STUDENT PLACEMENT

4.3.1 Best Practice: Kremlin

■ DESCRIPTION

The KREMLIN learning activity was one of 4 virtual cross-border internship activities conducted in the INTERN project (see next chapter). For this specific activity that took place from January 2002 until May 2002, several Danish students had a virtual internship in French company Kremlin, Inc. This company is a leading manufacturer of finishing equipment and offers a complete range of products and accessories for the extrusion and spraying of paints, varnishes and other coatings. As part of a strategic review of their activities in Scandinavia, Kremlin approached the “Institut de Formation Internationale” (IFI) in Rouen, France, to ask for help in carrying out a market research study in Denmark. IFI in turn enlisted the help of the Tietgen Business School in Denmark.

The activity consisted of two phases, of which only the first phase can be considered as an example of virtual internship. In this first phase, students from the Tietgen Business School developed and managed field research, and presented a comprehensive report in English. The final presentation of the report was done via videoconference, for three senior executives from Kremlin. During this first phase, the Danish students went on a business visit to Kremlin, Inc. and IFI in France. During the lifetime of the project, Kremlin Inc. had direct contact with both student groups.

■ MAIN PARTICIPANTS

Institut de Formation Internationale (IFI), ESC-Rouen (FR), Tietgen Business College (DK), Kremlin, Inc. (French Company) (FR)

■ TECHNOLOGY USED

Various communication channels were used: two videoconferences

were set-up and carried out between IFL and Tietgen. E-mail was the main communication tool between the students and Kremlin. Fax was used to gather information from the companies questioned in the market research. For market research recruitment, any additional communication with Kremlin and any communication between the 2 coordinators of each student group, telephone was used.

- MAIN FEATURES (SYNCHRONOUS OR ASYNCHRONOUS COMMUNICATION, LOCATION (IN)DEPENDENT DELIVERY, VIRTUAL OR BLENDED ...)

The communication was both synchronous (videoconferences, telephone) as well as asynchronous (e-mail). The delivery of the material was both location dependent (videoconferences) as well as location independent (e-mail, telephone, fax). As the students also visited the company physically, this was a blended activity with both face-to-face and virtual elements.

- SPECIFIC EXPERIENCES (LANGUAGE, CULTURE, EQUIPMENT, ACCESS, ASSESSMENT & ECTS)

The language used to communicate was English. No specific operational issues were experienced. Also cultural differences did not seem to surface: the Danish students learned how to react in a French business culture. As to equipment and logistics, a workplace with facilities such as Internet, e-mail, fax and phone was to the students. One of the major technology aspects to consider is the sound and image quality of the videoconferencing equipment. Students who participated were awarded 10 ECTS.

- CONCLUSIONS DRAWN

The evaluation of this activity based on questionnaires showed that the students gained new knowledge, not only in the subject area but also in cross-cultural understanding, language skills and the use of ICT. With regard to the set-up, the students recommended working in small groups of maximum 10 participants supported by a teacher when needed. Students should have access to a workplace with facilities such as Internet, e-mail, fax and phone.

The students really appreciated meeting each other early in the process and visiting the company together. Furthermore, specific objectives and responsibilities of students need to be clarified with the company. It is also of great importance to obtain company commitment to honour appointments, promised information etc. The level of IT skills of all the participants should be checked, and if necessary, additional training should be given²⁸.

■ AVAILABLE RESOURCES

Best Practice Handbook: Virtual Internship, Real Experience in a Virtual world (available at the Being Mobile website www.being-mobile.net).

4.3.2 Other Examples

In the best practice handbook developed in the framework of the INTERN project (see next chapter) other examples have been elaborated. This handbook can be found on the Being Mobile website (<http://www.being-mobile.net>).

²⁸ Contact person: Regitze Kristensen at Tietgen Business College (<http://www.tietgen.dk>)

4.4 VIRTUAL SUPPORT TO PHYSICAL EXCHANGE

4.4.1 Best Practice: Erasmus Mundus Programme(REVE)

■ DESCRIPTION

The Erasmus Mundus Programme, defined as a ‘co-operation and mobility programme in the field of higher education’, is an initiative of the European Commission to encourage active collaboration in teaching between European universities. The Erasmus Mundus page on the website of European Union cites: “the programme is intended to strengthen European co-operation and international links in higher education by supporting high-quality European Masters Courses, by enabling students and visiting scholars from around the world to engage in postgraduate study at European universities, as well as by encouraging the outgoing mobility of European students and scholars towards third countries.”

Erasmus Mundus Masters Programmes are organised jointly by at least 3 European HEI’s located in at least three different European countries. These programmes are particularly targeted at students outside of Europe, in Asia, Africa, Oceania and America. More than 50 Masters courses have now been selected under Action I of the Erasmus Mundus Programme.

Physical mobility is a key factor in these Master’s programmes. Students need to spend part of the study period in two different participating universities. This physical mobility can be complemented with Virtual Mobility activities during the study period.

One particular Virtual Mobility activity that supports the physical mobility in this international Master’s programme is the use of user-friendly communication tools for the selection of students. Students accepted in Erasmus Mundus programme receive substantial grants from the European Commission during their studies. The organisers of the programmes are therefore obliged to select the best students for their programme. To get a better picture of the capabilities of potential

students, traditional paper-based selection has been complemented with virtual communication.

Other Virtual Mobility activities that can complement the physical mobility in Erasmus Mundus programmes include virtual seminars, guided independent work on Master's dissertations and virtual communities set up around individual programmes.

■ MAIN PARTICIPANTS

The ideas and experiments described here were conducted at the Catholic University of Leuven for the Erasmus Mundus Master's programmes organised at this university. These programmes were the Erasmus Mundus Master in Adapted Physical Activity²⁹, the Erasmus Mundus Master in Nanoscience and Nanotechnology³⁰ and the Erasmus Mundus Master in Bio-ethics.³¹

■ TECHNOLOGY USED

In the Erasmus Mundus Master in Adapted Physical Activity³², the coordinators have chosen for a two-tier selection procedure. The first phase is based on a traditional paper application. The second phase includes a virtual selection interview for reserved candidates using FlashMeeting³³, a webconferencing tool developed by the Open University UK.

■ MAIN FEATURES (SYNCHRONOUS OR ASYNCHRONOUS COMMUNICATION, LOCATION (IN)DEPENDENT DELIVERY, VIRTUAL OR BLENDED ...)

The selection procedure includes both synchronous as well as asynchronous communication. The first phase with paper-based application is partly electronic, through e-mail or a secured website, i.e. asynchronous. The second phase is synchronous through the webconferencing interviews.

29 <http://www.erasmusmundus.be>

30 <http://www.emm-nano.com>

31 <http://med.kuleuven.be/education/Bioethics/>

32 <http://www.erasmusmundus.be>

33 <http://www.flashmeeting.com>

■ SPECIFIC EXPERIENCES (LANGUAGE, CULTURE, EQUIPMENT, ACCESS, ASSESSMENT & ECTS)

On the whole, the experiences for students and teachers have been good. Some students did have reservations about participating in an online selection interview, but these reservations were often due to technological issues. The technology was generally easy-to-use. There were some minor problems due to low bandwidth in especially the African countries, but they could be overcome.

■ CONCLUSIONS DRAWN

The teachers and staff members that took part in this pilot selection procedure were very satisfied with the results. The introduction of webconference-based selection answered a growing need with the programme organisers who were increasingly confronted with the shortcomings of paper-based selection. Especially the assessment of students' language skills played a key role in choosing this methodology.

More Virtual Mobility activities were conducted to complement these Erasmus Mundus Programmes include a virtual lecture series (of type 1), distance guidance on independent work on Master's dissertation and the set-up of virtual communities.

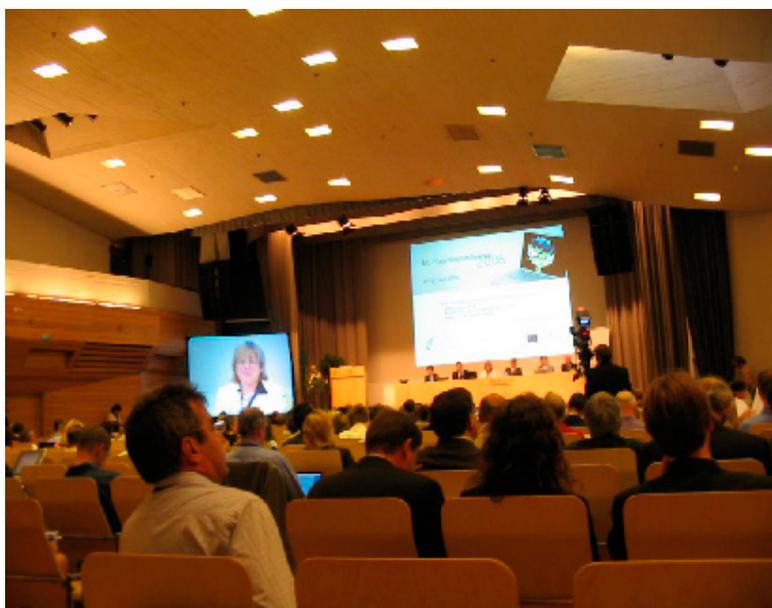
■ AVAILABLE RESOURCES

Rajagopal, K., W. Van Petegem and S. Verjans (2006). A Need for Virtual Mobility in Mainstream Education: Case Study of the Erasmus Mundus Programmes at the Catholic University of Leuven, Belgium. EDEN 2006 Annual Conference: e-Competences for life, employment and innovation. A. Szucs and I. Bø (Eds.). Vienna University of Technology, Austria, European and E-learning Network. 14-17 June 2006, pp. 284-289.

4.4.2 Other Examples

In the framework of the VM-Base project (see next chapter) other concrete activities of virtual support to physical exchanges will be set-up in the academic year 2007 - 2008. More information about these future activities can be obtained from EuroPACE ivzw (<http://www.europace.org>).

EU PROJECTS IN THE AREA OF VIRTUAL MOBILITY



5.1 INTRODUCTION

The European Commission, as well as several national agencies have actively promoted Virtual Mobility for some time, by providing financial support to educational projects in this field, for example through the Socrates programme. These projects have over the years generated important outcomes including guidelines, procedures, pedagogical models, manuals and handbooks. However, these outcomes do not enjoy the take-up they deserve mainly due to a lack of promotion. Therefore, this part of the handbook brings together Socrates³⁴ projects and e-learning³⁵ projects on Virtual Mobility in order to share the concepts and experiences gained in these.

Nine of the described Virtual Mobility projects have been supported by the Minerva Action of the Socrates programme that sought to promote European co-operation in the field of Information and Communication Technology (ICT) and Open and Distance Learning (ODL) in education. The Minerva Action had three main objectives, (1) to promote understanding among teachers, learners, decision-makers and the public at large of the implications of the use of ICT in education, as well as the critical and responsible use of ICT for educational purposes; (2) to ensure that pedagogical considerations are given proper weight in the development of ICT and multimedia-based educational products and services; and (3) to promote access to improved methods and educational resources as well as to results and best practices in this field.

We have also described 10 best practice projects supported by the e-learning Programme of DG Education and Culture. The e-learning Programme aims at the effective integration of Information and Communication Technologies (ICT) in education and training systems in Europe. One of its action lines is “European Virtual Campuses”. The priority here is to add a virtual dimension to European co-operation in higher education by encouraging the development of new organisational models for European universities (virtual campuses) and for European exchange and sharing schemes (Virtual Mobility). This

34 http://ec.europa.eu/education/programmes/socrates/socrates_en.html

35 http://ec.europa.eu/education/programmes/elearning/index_en.html

action builds on existing co-operation frameworks such as the Erasmus programme, in order to give them an e-learning component.

In the descriptions of the EU projects below, attention is paid to the funding programme, the duration and the objectives of the project, its target groups, its main activities and the contributing partners. Also information about available outputs, and –when applicable- a project website are provided.

5.2 CURRENT VIRTUAL MOBILITY PROJECTS

5.2.1 European Commission - Directorate-General for Education and Culture, Training and Youth - e-learning initiative.

5.2.1.1 VENUS - VIRTUAL AND E-MOBILITY FOR NETWORKING UNIVERSITIES IN SOCIETY

■ DESCRIPTION

VENUS internationalises prestigious courses, with international scope and importance, through virtual mobility and aims to become a world-class example of cross-border collaboration between higher education institutions, businesses and citizens. The overall objective is to create a sustainable best-practice example of the “Faculty of Extension”, extended in terms of geography, teaching methods and target public.

Two different models of virtual seminars are implemented and evaluated: a virtual seminar series of monthly seminars during the academic year and a one-week virtual summer school. The seminars consist of three main parts: interactive preparatory activities, seminar delivery (presentation, localisation and debate) and interactive follow-up activities.

The international/regional seminars using virtual means to deliver the contents are offered to all citizens and focus on promoting European citizenship, collaboration and personal development.

Within the project training materials on virtual instruction and the organisation and facilitation of virtual seminars for higher education and lifelong learning will be developed and bundled in a modular Virtual Seminar Organisation Handbook. Furthermore, a documented strategy for Higher Education Institutions and their partners in education on how to successfully organise self-sustainable, high quality and certified virtual mobility schemes is elaborated. And finally, an online module entitled "Europe in Focus" containing recordings and learning materials derived from the seminar series will be published.

■ PARTNERSHIP

EuroPACE ivzw (BE), Catholic University of Leuven (BE), AtiT (BE), University of Cologne (DE), Helsinki University of Technology (FI), University of West-Hungary (HU), West Pomeranian Business School (PL), Technical University of Kosice (SK), Consorzio NETTUNO (IT)

■ DURATION

March 2006 – February 2008

■ FURTHER RESOURCES

<http://www.venus-project.net/> ; <http://www.venus-seminars.net/>

5.2.1.2 EVICAB - EUROPEAN VIRTUAL CAMPUS FOR BIOMEDICAL ENGINEERING

■ DESCRIPTION

EVICAB aims to develop, build up and evaluate sustainable, dynamic solutions for Virtual Mobility and e-learning that, following the principles of the Bologna process: (i) mutually support the harmonisation of European higher education programmes; (ii) improve the quality of and comparability between the programmes, and (iii) advance post-graduate studies, qualification and certification.

EVICAB aims to do this through a jointly developed online Biomedical

Engineering Programme (BME). This project sets up an online platform on which the different partner universities and universities outside the consortium can offer their courses. These courses are offered to EVICAB free of charge. To be accepted in the online BME Programme, the course has to be approved by a Steering Committee.

The responsibility for each course, its maintenance and its delivery remains with the individual universities. Just like each individual university offers its courses to the online programme, it can also take out courses from the online programme into its own programme.

An important goal is that these approaches and mechanisms for virtual e-learning can be extended and transferred from this project also to other disciplines to promote virtual student and teacher mobility and credit transfer between European universities.

■ PARTNERSHIP

Tampere University of Technology (FI), Tallinn University of Technology (EE), Kaunas University of Technology (LT), Linköping University (SE), Brno University of Technology (CZ), Mediamasteri Group (FI)

■ DURATION

January 2006 - December 2007

■ FURTHER RESOURCES

<http://www.evicab.eu/>

5.2.1.3 REVE – REAL VIRTUAL ERASMUS

■ DESCRIPTION

The REVE project aims to enhance the impact and efficiency of traditional Erasmus programmes through the development and support of Virtual Erasmus actions. For this purpose, two main actions have been undertaken by the collaborating partners:

- Virtual mobility course actions, in which ‘Real Virtual Erasmus’ is implemented on the basis of new as well as improved existing courses and programmes, with the right blend of virtual and real collaboration between students, teachers, and other knowledge workers across institutional and national borders.
- Horizontal support actions that enable and provide the necessary services to the first action line: development and implementation of the necessary technological, organisational and pedagogical tools, techniques and services, models and procedures, training.

The main output of the REVE project is the ‘Virtual Mobility Manual’ that introduces Virtual Mobility with all its aspects and advantages to teachers in higher education, to support them while implementing this new aspect of mobility in their course and thus giving students the opportunity to broaden their learning experience. Therefore the manual includes practical examples of Virtual Erasmus courses with best practices, information on working collaboration models and implementation procedures including those related to key aspects such as localisation, accreditation and agreements.

■ PARTNERSHIP

EuroPACE ivzw (BE), EDEN – European Distance and E-learning Network (UK), EUNITE – European Network for Information Technology in Education (BE), Catholic University of Leuven (BE), Helsinki University of Technology (FI), University in Hagen (DE), Katholieke Hogeschool Kempen (BE), University of Granada (ES), University of Strathclyde (UK), Aalborg University (DK), University of West Hungary (HU), Warsaw University of Technology (PL), University of Rome - La Sapienza (IT), BEST – Board of European Students of Technology (FR), Consorzio NETTUNO (IT), College of Management and Public Administration in Zamosc (PL), Escola Superior de Comunicação Social (PT)

■ DURATION

January 2005 - December 2006

■ FURTHER RESOURCES

<http://reve.europace.org/>

Virtual Mobility Manual “How to teach internationally from your own desk?” available at <http://reve.europace.org/drupal/>

5.2.1.4 MASSIVE - MODELLING ADVICE AND SUPPORT SERVICES TO INTEGRATE VIRTUAL COMPONENT IN HIGHER EDUCATION

■ DESCRIPTION

MASSIVE designs a model of mutual support services for European traditional universities to successfully implement the virtual component of teaching. Six areas have been identified as particularly critical and needed in EU higher education institutions: university strategies towards the integration of ICT in the teaching/learning practice, evolution of university libraries, management of IPR issues, support to teaching staff, support to students, and virtualisation of content. Through a peer review evaluation approach MASSIVE promotes a mutual support model for service provision among specialised teams of university staff.

Activities include desk research in the six areas proposed, in order to obtain a comprehensive picture of the state-of-the-art of the support e-learning services of traditional universities and the existing experiences and approaches from previous projects. This provided the necessary feedback to elaborate the project methodology that set the basis for the organisation of:

- a collection of case studies on e-learning support services for the virtualisation of universities
- peer review and mutual support services sessions including the visit of peer experts in the fields identified to the universities involved in the project.

- integration seminars focusing on the peer review methodology
- dissemination activities to promote the peer review model proposed

■ PARTNERSHIP

University of Granada (ES - coordinator), FIM New Learning (DE), Tavistock Institute (UK), EuroPACE ivzw (BE), Scierter Italy (IT), University of Barcelona (ES), BUTE – Budapest University of Technology and Economics (HU), University of Edinburgh (UK), University of Bergen (NO), Digital Society of Authors and Publishers – Group SGAE (ES), Scierter Spain (ES)

■ DURATION

January 2005 – December 2006

■ FURTHER RESOURCES

<http://cevug.ugr.es/massive/>

5.2.1.5 VICTORIOUS - VIRTUAL CURRICULA THROUGH RELIABLE INTEROPERATING UNIVERSITY SYSTEMS

■ DESCRIPTION

The VICTORIOUS project is an in-depth analysis consisting of feasibility tests in three different areas that are key to opening the door to large-scale implementation of Virtual Mobility: Quality, Interoperability/Open Standards, and Digital Repositories and Resources.

The VICTORIOUS project uses physical mobility in a digital world as a proxy for Virtual Mobility. It researches how mobile students and university staff can deal with varying organisational systems and ICT facilities at different European universities. This is investigated in two ways: through two surveys and feasibility tests (pilots).

The student survey probes the student's experience of differing ICT facilities when on exchange. The survey has been followed up by a university survey which focuses on the institutions' view on and priorities in ICT facilities.

The pilots deal with six possible solutions to identified issues, which include: (i) quality of information about the host university, (ii) making courses more 'visiting student friendly', (iii) interconnections between virtual learning environments, (iv) making course choice from remote universities easier, (v) sharing digital identities between universities and (vi) remote access to the full digital services of the home university.

The output of the VICTORIOUS project will be an extensive report on the surveys and the feasibility tests (pilots). It also includes guidelines for students, universities and policy makers.

■ PARTNERSHIP

Coimbra Group (BE), University of Bristol (UK), University of Edinburgh (UK), University of Granada (ES), University of Groningen (NL), Catholic University of Leuven (BE), University of Pavia (IT), University of Siena (IT), University of Tartu (EE) and University of Turku (FI)

■ DURATION

January 2005 - December 2006

■ FURTHER RESOURCES

<http://www.victorious-project.org>

5.2.1.6 EVENE - ERASMUS VIRTUAL ECONOMICS & MANAGEMENT STUDIES EXCHANGE

■ DESCRIPTION

EVENE is creating a core network of traditional European higher education institutions operating in the specialised field of Economics and Management studies able to effectively contribute to better-quality pan-European educational initiatives through virtual student mobility realised through distance forms of study using an e-learning approach.

The key global activity of EVENE is the creation of a core virtual campus specialised in Economics and Management studies which would serve to facilitate the provision of virtual student mobility opportunities.

The EVENE partners are European HEIs with existing bilateral agreements covering the Erasmus student mobility programme and providing distance online tuition. Within the consortium, a number of these online courses will be academically rigorously assessed. If required, their quality and the pedagogic aspect of the study materials will be amended.

Based on a rigorous academic analysis of what constitutes good practices, the most appropriate model for the implementation of a virtual dimension to tuition provision within a network of traditional European universities will be identified and selected. The contractual aspects and the legal support to virtual student mobility will also be looked at in the course of the project. Implementation of the Virtual Mobility programme shall be on the basis of mutual ECTS recognition with a variety of types of communication between teachers and students - i.e. various types of learning management systems, face-to-face sessions, video-conference mediated consultations, etc. Feedback from the various stakeholders will be taken into account and the model will be modified and its quality improved progressively.

■ PARTNERSHIP

Tomas Bata University Zlin (CZ), Galway-Mayo Institute of Technology

(IE), Huddersfield University (UK), Riga International School of Economics and Business Administration (LV), Savonia University of Applied Sciences Varkaus (FI), University of Genoa (IT), University of Hradec Kralove (CZ), West Bohemia University Pilsen (CZ)

■ DURATION

March 2006 – February 2008

■ FURTHER RESOURCES

<http://www.fame.utb.cz/evene>

5.2.1.7 E-MOVE – AN OPERATIONAL CONCEPTION OF VIRTUAL MOBILITY

■ DESCRIPTION

E-MOVE focuses on four separate types, models and scenarios for organising Virtual Mobility (VM): (i) organising a pool of international courses: choosing courses from different foreign institutions , (ii) building a Virtual Community: creating VM in the framework of an international learning experience by ICT within a course, (iii) creating an international virtual space for joint courses and joint programmes with international partners and (iv) facilitating European access to suitable and relevant courses for continuing professional training and development (CPT/CPD).

The project explores the critical success factors of these four types of Virtual Mobility and implements these in real Open and Distance Teaching courses. It works on two interrelated and parallel running action lines: Observatory and Implementation of test-beds and 2 case studies.

The result of the implementation action line (test-beds and case studies) will be an overview of possibilities, constraints and good practice within the implementation of the four models of VM. The “Observatory”, consisting of experts in distance education and VM, will analyse,

harmonize and integrate these results in examples of good practice and actual implementation. In supporting the implementation of VM also a European information sharing portal will be established for library and information support (LIS) to students and staff operating in VM.

■ PARTNERSHIP

EADTU (NL), FernUniversität Hagen (DE), OUNL (NL), UNED (ES), UOC(ES), OUUK (UK), DAOU (DK), Consorzio NETTUNO (IT), OSCAIL (IE), OLF (UK), Apertus (HU), EITF (EE), PVU(PL), JKU (AT)

■ DURATION

February 2006 – November 2007

■ FURTHER RESOURCES

<http://www.eadtu.nl/e-move/>

5.2.1.8 PLATO – ICT PLATFORM FOR ONLINE LEARNING AND EXPERIENCES ACCREDITATION IN THE MOBILITY PROGRAMME

■ DESCRIPTION

The objective of this project is to enrich the existing EuroPASS service by offering online accredited courses and online skills accreditation for a specific set of teaching modules and skills, with mutual recognition of accreditation by a range of higher education and workplace stakeholders.

The project builds further on the EPI: Educational partnership through ICT project. The project team also looks towards the creation of a strategic partnership between mobility organisations and workplaces along the lines of that elaborated in the “Experience Works Programme” handbook. Such a programme, by using the EPI system, will be made available as an online learning and accreditation service to all student

exchanges of the above universities.

The expected results are key skills units (modules) offered for accreditation within the system. They will be: setting objectives, career planning, giving and receiving feedback, working in a team, learning styles. It is anticipated that from the 1,000 student exchanges directly addressed by the partnership about 200 will use this opportunity to receive an additional qualification in specific skill areas.

An online portal system will be established as a trans-national higher education service integrating skills self assessment, learning guidance, formal skills assessment and accreditation, and an e-learning portal with a set of learning modules.

■ PARTNERSHIP

Cork Institute of Technology (IE), Universidad de Valladolid (ES), Budapest University of Economics (HU), TU Wien (AT).

■ DURATION

2006-2007

■ FURTHER RESOURCES

<http://www.5pieces.com/epi/>

http://www.danube.or.at/joomla/index.php?option=com_content&task=view&id=103&Itemid=179&bereich=proj&lang=de#PLATO

<http://www.efwe.org/>

5.2.2 European Commission - Directorate-General for Education and Culture, Training and Youth – Socrates/Minerva

5.2.2.1 VM-BASE - VIRTUAL MOBILITY BEFORE AND AFTER STUDENT EXCHANGES

■ DESCRIPTION

The recently started VM-BASE project aims to enhance the impact of the Erasmus programme through the set-up of Virtual Mobility initiatives which support in particular the preparatory and return phases of a physical Erasmus visit.

VM-BASE fosters preliminary linguistic, social and cultural awareness as a preparation for physical student and teacher mobility. Options are investigated for allowing individuals to virtually prepare their physical Erasmus visit through participation in virtual introductory language and culture courses, eventually also digital literacy courses. Possibilities to enhance the advance orientation phase of students through virtual pre-selection tests and orientation modules are examined and ways for virtual assessment and evaluation at a distance at the end or even after physical Erasmus exchanges are studied.

VM-BASE furthermore investigates how to set up and support a Virtual Alumni Association as a community of students and teachers who embarked in physical and Virtual Mobility activities. As a common concern over the above initiatives the project pays particular attention to e-coaching which will result in a manual with good practices and models, tools and systems, looked upon from three different angles: technology-media, organisation-logistics, and pedagogy-didactics.

Project results will be gathered in a manual on ‘blended mobility’ with concrete and validated procedures and recommendations for blended mobility activities at institutional, network and European level.

■ PARTNERSHIP

EuroPACE izvz (BE - coordinator), Catholic University of Leuven (BE), Coimbra Group (BE), Catholic Polytechnic Leuven (BE), ESIB – The National Unions of Students in Europe (BE), Tartu Ülikool (EE), BEST – Board of European Students of Technology (FR), University of West Hungary (HU), Helsinki University of Technology (FI), Laurea University of Applied Sciences (FI), University of Edinburgh (UK)

■ DURATION

October 2006 - September 2008

■ FURTHER RESOURCES

<http://www.europace.org/>

5.2.2.2 ESMOS – ENHANCING STUDENT MOBILITY THROUGH ONLINE SUPPORT

■ DESCRIPTION

The combined aims of the ESMOS partnership are to develop, evaluate and model the usage of Virtual Learning Environments and online technologies to support students in mobility situations (study exchanges and work placements) throughout the EU.

The ESMOS project hopes to improve the quality of student's mobility experience by providing them with a high level support through the means of Virtual Learning Environments and other online technologies. The partnership has firstly carried out an in-depth analysis of existing practices of mobile students' support, use of technologies, the factors that affect students on placement and an understanding of the relationships which need to be developed between the Universities and their placement organisations in order to identify where and how virtual learning environments (VLEs) and other online technologies can be utilised effectively. Based on this needs analysis, a methodology for international mobility has been developed using a variety of technologies and online tools, such as blogs, wikis, SMS, MMS and virtual classroom applications along with VLEs. It is elaborated to

become a Model for the Virtual Support of Mobility Students, with protocols and guidelines for each type of technology. These guidelines and protocols are also being tested in a number of real-life case studies in the final months of the project, alongside online tools for staff and students to help them to overcome pedagogical barriers when entering new learning situations.

PARTNERSHIP

University of Salford (UK), University of Calabria (IT), FH Joanneum (AT), Vytautas Magnus University (LT), Czestochowa University of Technology (PL) and D. Tsenov Academy of Economics (BG)

■ DURATION

January 2005 – January 2007

■ FURTHER RESOURCES

<http://www.esmos.org>

5.2.2.3 ICOLL

■ DESCRIPTION

iColl links the exploration of the subject of innovation in an international business studies curriculum with innovative forms of learning/training for future international managers.

The project achieves this by organising a number of online international seminars on various topics of innovation in international business. The seminars are targeted at students and in-service managers. By participating in virtual, trans-national exchanges, future managers not only derive first-hand experience of operating in a networked learning environment, but, by engaging in collaborative project work on aspects of innovation, they will also be confronted directly with the challenge and opportunity of dealing with the issue in cross-cultural settings. The involvement of actual managers in these exchanges gives the project

relevance and a cutting edge. The project allows future managers to see for themselves the value of networking as an innovative learning/training tool, enabling them to compare their attitudes to innovation with fellow students from different cultural backgrounds and encouraging them to extend the potential of this cross-cultural approach to future training scenarios.

Each online seminar is preceded by an intensive online training phase for tutors, providing hands-on experience in coaching international team-building and in teaching online in international, platform-based settings.

Therefore, innovation is brought into the project in three ways: (i) through collaborative/cross-cultural work between undergraduates from EU member states, Turkey and the USA, (ii) by dealing with innovation as a subject in its own right within the discipline of international business studies and (iii) by bringing the future generation of managers into contact with new training approaches, thereby providing multipliers for innovative training within and between companies.

■ PARTNERSHIP

European School of Business, Reutlingen University (DE), Open University, Institute of Educational Technology (UK), Vytautas Magnus University/ Centre of Educational Studies (LT), Marmara University (TR), Corvinus University of Budapest (HU), University of Economics, Krakow (PL), Steinbeis Hochschule Berlin (DE), Associated Partner: Kent State University, College of Business Administration and Graduate School of Management (USA)

■ DURATION

2005 - 2007

■ FURTHER RESOURCES

<http://www.icoll.eu>

5.2.2.4 VEBS - VIRTUAL EUROPEAN BANKING SCHOOL

■ DESCRIPTION

VEBS builds on the belief that an innovative demand-oriented e-learning model in the banking sector, which may be called a “Virtual European Banking School”, involving EU member countries, accession and candidate countries, would contribute to the strengthening of the European integration process, by enhancing the potential of human resources according to a lifelong learning perspective.

VEBS intends to further develop and refine a shared competencies mapping tool for the banking sector, embedding it in a targeted e-learning model geared to the learning and training needs of the banking professions, with particular focus on the potential synergies among Higher Education Institutions (HEI), centers for vocational training and banks themselves.

The project aims at filling the gaps between the “world of research and theory” (i.e. higher education, where innovation processes are likely to be theorised) and the “world of work and action” (where innovation processes are expected to be implemented). Thus it would be possible to establish an interorganisational ‘dialogue’ based on cooperative approaches, such as peer review and collaborative learning. The tool for competences mapping will bring about an innovative approach to Lifelong Learning and Continuous Professional Development based on “families of competences”. In the banking sector some attempts in this respect have already been made.

The learning contents will match the professional pathways linked to career advancement. This strict interrelation between learning and professional development will be assured by the full involvement of banking institutes and of universities (some of which are directly involved in VEBS as partners, and some others will be involved at a later stage, for the validation process).

■ PARTNERSHIP

University “Politehnica” of Bucharest (UPB) (RO), SCIENTER – Centro di

Ricerche e Servizi Avanzati per la Formazione (IT), Finance & Banking – Organisational and HR Development Association - EFFEBI (IT), Sofia University “St. Kliment Ohridski” (BG), College of Banking (BIVS) (CZ), International Training Centre for Bankers (ITCB) (HU), Institute of Financial Services (IFS) (MT), Warsaw Institute of Banking (WIB), (PL), Romanian Banking Institute (RBI) (RO), Institute of Banking Education of the National Bank of Slovakia (NBS) (SK)

■ DURATION

2004 - 2006

■ FURTHER RESOURCES

<http://www.vebs.ro>

5.3 PREVIOUS VIRTUAL MOBILITY PROJECTS

5.3.1 European Commission - Directorate-General for Education and Culture, Training and Youth - e-learning Initiative.

5.3.1.1 CEVU - A COLLABORATIVE EUROPEAN VIRTUAL UNIVERSITY

■ DESCRIPTION

The cEVU project aimed at the development of validated e-learning models and ideas for a European virtual university. It was a proposed collaboration between five existing international university networks, which were already actively pursuing academic and organisational cohesion in the areas of distance and online learning: EuroPACE izvz, EUNITE, ECIU, Coimbra Group and EUA.

The project positioned itself in the ongoing evolution in Europe,

implementing ICT in education as a strategic issue for future university development. It wanted to study why a collaborative European Virtual Education would be beneficial to universities, how it should be structured and operated and what should be put in place to support its creation. The following activities were undertaken:

- study of the elements of joint working practices, models and policies for distance and online education.
- development of the technical infrastructure for a collaborative European Virtual University, together with the necessary teaching and learning services.
- validation by the participating institutions through a set of high quality online pilot courses

The outcomes of the cEVU project were published in an online 'Manual for a collaborative European Virtual University' with recommendations and guidelines for decision makers, teachers, trainers, managers and technicians. The manual focuses on collaborative European Virtual Universities as one format of transnational virtual higher education.

■ PARTNERSHIP

EuroPACE ivzw (BE - coordinator), ECIU – European Consortium of Innovative Universities (NL), EUNITE – European Universities Network for Information Technology in Education (BE), Coimbra Group (BE), EUA – European University Association (CH), University of Twente (NL), University of Strathclyde (UK), Catholic University of Leuven (BE), University of Dortmund (DE), Technical University of Compiègne (FR), Technical University of Hamburg-Harburg (DE), Aalborg University (DK), Helsinki University of Technology (FI), University in Hagen (DE), University of Granada (ES), University of Rome – La Sapienza (IT), Aristotle University of Thessaloniki (GR), Polytechnic University of Madrid (ES), Autonomous University of Barcelona (ES), University of Aveiro (PT), University of Joensuu (FI), EPYC (BE)

■ DURATION

November 2001 – November 2003

■ FURTHER RESOURCES

Manual for a Collaborative European Virtual University available at <http://www.europace.org/>. Reports from the cEVU working groups on Accreditation, IPR and Copyrights, Language management, Ethical Issues, Policies, Pedagogical Models and Online Pedagogy, Quality, Digital Platforms.

5.3.1.2 UNIVE - COLLECT AND SHARE THE KNOWLEDGE AND EXPERIENCES OF DEVELOPING A CONSORTIUM-TYPE E-UNIVERSITY.

■ DESCRIPTION

Growing international competition in higher education supported by the development of ICT is a challenge for many universities. Establishing consortia for the better use of limited intellectual and financial resources is one potentially successful strategy worth considering in this situation. In order to provide an e-university model that would be relevant for different European countries, the available e-learning know-how of previously successful international projects were collected and investigated. Further, existing consortium-type e-university models from Finland (Finnish Virtual University), Sweden (Net University), Scotland (Interactive University), and Estonia (Estonian e-University) were analysed and integrated in one model of a small-state e-university. The model was then tested in a number of pilot projects. This model was described in a compendium and on a CD/DVD ROM, which also includes results of the project.

The target groups of UNIVE are: groups related to the test-country Estonia (learners, teaching and supporting staff; universities; decision makers); potential users of the developed small state e-university model (other states and universities) and European universities covered by the project network and relevant parties in the field of ODL and ICT.

■ PARTNERSHIP

University of Tartu (EE), Tallinn Pedagogical University (EE), Tallinn Technical University (EE), Estonian Business School (EE), University of Stirling (UK), University of Joensuu (FI), University of Art and Design Helsinki (FI), Mid Sweden University (SE), European Association of Distance Teaching Universities (NL)

■ DURATION

October 2003 – December 2005

■ FURTHER RESOURCES

<http://www.e-uni.ee/Minerva/>

5.3.2 European Commission - Directorate-General for Education and Culture, Training and Youth – Socrates / Minerva

5.3.2.1 CAB - COLLABORATION ACROSS BORDERS

■ DESCRIPTION

CAB aimed (i) at providing an online space for student collaborative activities, (ii) to promote networking between tutors and (iii) to encourage internationalisation.

The result is the CABWEB portal that hosts tutor and student networks and provides space for collaborative activities. This portal has been implemented using the Open Source Software Package Moodle. The tutor and student network are public spaces, where anyone can self-enrol and participate in online discussions, and guests can view content, but not post messages. The openness of a collaboration space (used for online collaboration between groups of students) can be determined by the tutor(s) who manage those spaces. The CAB project is undertaking research into the pedagogical, organisational

and cultural aspects of international online student collaboration.

■ PARTNERSHIP

Project partners are from 6 Higher Education Institutions: University of Salford (UK), Fachhochschule Stuttgart (DE), Universidad de Murcia (ES), Institute of Information Engineering (NL), Politechnika Lodzka (PL) and Chester College of Higher Education (UK).

■ DURATION

October 2003 – September 2005

■ FURTHER RESOURCES

<http://www.cabweb.net/portal/>

5.3.2.2 INTERN

■ DESCRIPTION

The idea behind INTERN was to explore the extent to which Information and Communication Technologies (ICTs) could support a system of Virtual Internships for European business students. A description of a Virtual Internship could be ‘an internship involving the use of an ICT supported environment, where students interact with each other and companies, independent of time and space, and across traditional geographical boundaries’. This means that these students can take part in company placements of various types, supported by ICT rather than by physically re-locating to the companies.

The colleges that took part in INTERN were all experienced business schools, which used the project as a way to support a series of pilot Virtual Internships to test the approach, and to gather information about how such Internships might be improved in the future.

During INTERN, 4 specific Pilot Virtual Internships were organised on which guidelines and recommendations for future virtual internships

were based. These pilots enabled students in each of the institutions to participate in Virtual Internship projects for international companies. They were:

- An assignment led by Buskerud University College for a Norwegian SME, Tronrud Engineering, to research markets, exhibitions and fairs for one of their products in other countries.
- An assignment led by IFI for a French company, Kremlin, Inc. a leading manufacturer of finishing equipment. The task was to find out more about the Danish market and the potential market for spray equipment.
- An assignment led by Arcada for ICL Invia, which is a Nordic service provider and operator of advanced information systems. The objective of this Virtual Internship was to investigate the use of Information Technology in Customer Relationship Management (CRM) for hotel chains and hotel marketing chains in Finland and Norway.
- An assignment led by Tietgen for the Danish DFDS Transportation Group, who wanted to carry out a logistic survey of track and trace systems.

■ PARTNERSHIP

Tietgen Business College (DK), Arcada Polytechnic (FI), Buskerud University College (NO) and Institut de Formation International (IFI) (FR)

■ DURATION

September 2000 - September 2002

■ FURTHER RESOURCE

Best-Practice Manual at: http://www.being-mobile.net/pdf/resources/INTERN_best-practice_manual.pdf

5.3.2.3 SPOT+ - STUDENTS' PERSPECTIVE ON TECHNOLOGY IN TEACHING AND LEARNING IN EUROPEAN UNIVERSITIES

■ DESCRIPTION

The purpose of the SPOT+ project was to analyse and develop university students' views on the use of information and communication technology (ICT) for teaching and learning. The possibilities for ICT to radically change academic learning are as yet unused, and targeted action is needed to make such change happen. Students are the most important group in bringing about these changes, and decisions must be taken by students and not only for students. Therefore, the SPOT+ project adopted a bottom-up perspective, involving students at universities across Europe to explore the role and potential of ICT in the development of Higher Education.

During the project, an extensive survey (with approximately 2,000 respondents) was conducted to analyse and develop university students' views on the use of information and communication technology (ICT) for teaching and learning. The survey focused on students' familiarity with ICT in teaching and learning, their needs and their expectations in this regard. On the basis of the analysis of students' needs as they emerged from the survey, two training modules were made: "E-learner surfboard" and "A virtual Erasmus student".

The major output of the SPOT+ project was the virtual learning environment and online space for discussion and exchange of experiences and ideas among students/peers and between students and "experts" in the field of ICT in teaching and learning.

■ PARTNERSHIP

ScienTer Centro di Ricerche e Servizi Avanzati per la Formazione (IT), ESIB - The National Unions of Students in Europe (AT), FIM Neues Lernen (DE), COIMBRA Group (BE), Catholic University of Leuven (BE), Åbo Akademi (FI), Edinburgh University (UK)

■ DURATION

October 2001 – December 2003

■ FURTHER RESOURCES

<http://www.spotplus.odl.org/>

5.3.2.4 EUROCLASS – PROMOTING ADVANCES IN EUROPEAN HIGHER BUSINESS AND SOCIAL SCIENCE EDUCATION THROUGH ICT-SUPPORTED VIRTUAL MOBILITY TEAMS

■ DESCRIPTION

EuroClass promoted a new innovative way of creating Virtual Communities in Higher Education. The aim of this project was to develop faculty staff groups who can manage cross border cooperation in higher education through international classrooms supported by Information and Communication Technologies, ICT.

EuroClass managed a number of activities bringing together students and academics in business and other studies, supported by a variety of ICT tools. Its objective was to explore the extent to which competent cross border Faculty Mobility Teams using Information and Communication Technologies (ICTs) can support and sustain a system of Virtual ERASMUS Mobility integrated in full time business and social science studies.

The teachers conducted their own EuroClass cooperation on their own or with other teachers from the partner institutions. Seven EuroClasses were chosen, developed and implemented by the teachers:

- E-Business, Marketing with Business IT
- Cross-Cultural Understanding
- Information Policy and Law in the Baltic Countries and

Finland

- Human Rights in Latvia and Norway – A Comparative Study
- The Incentives for the Migration from Baltic Countries to the European Union after the EU Enlargement
- Political Science
- New Business Entry into the Lithuanian Market – including a study of market potential and legal issues

The output of the EuroClass project was a manual on the use of Information and Communication Technologies (ICTs) in supporting Virtual Mobility. The reports on each pilot can be found on the website.

■ PARTNERSHIP

Tietgen Business College (DK), ARCADA University College (FI), Buskerud University College (NO), EuroFaculty Estonia (EE), EuroFaculty, Latvia (LV), EuroFaculty Lithuania (LT), ATiT (BE)

■ DURATION

August 2002 - May 2004

■ FURTHER RESOURCES

<http://www.euroclass.lv/>.

Best-Practice Manual at: http://www.being-mobile.net/pdf/resources/Euroclass_best-practice_manual.pdf.

5.3.2.5 NETCAMPUS - IMPROVING OPEN AND DISTANCE LEARNING IN A NETWORK

■ DESCRIPTION

The NetCampus project promoted the understanding of the qualities and characteristics of Open and Distance Learning developed in a network of universities ("networked e-learning"). It furthermore demonstrated the potential of networked e-learning, and tried to offer solutions for the barriers that obstruct a successful implementation of this kind of learning in mainstream education.

The project identified a comprehensive list of critical factors - benefits as well as threats - of networked e-learning. To this end, existing expertise and experience on providing ODL in a networked environment was reviewed, and state-of-the-art knowledge on models for networking, barriers and obstacles to a successful implementation, potential benefits and added value was gathered. In a next step, solution models and scenarios to overcome both practical and attitudinal obstructions and obstacles specific for education in a network environment were developed, tested and evaluated through pilot course activities. The final project report provides several useful instruments to be used when engaging in networked e-learning activities.

■ PARTNERSHIP

EuroPACE ivzw (BE – coordinator), Catholic University of Leuven (BE), University of Twente (NL), Aalborg University (DK), Helsinki University of Technology (FI), Warsaw University of Technology (PL), University Politehnica of Bucharest (RO), Technical University of Cluj Napoca (RO), University of West Hungary (HU), Technical University of Kosice - Elfa, Ltd. (SK), Slovenian Institute for Adult Education (SI), Consorzio NETTUNO (IT), University of Bologna – CITAM (IT)

■ DURATION

September 2000 - January 2003

■ FURTHER RESOURCES

Final report available at <http://www.europace.org/>

ADVANTAGES OF VIRTUAL MOBILITY



Virtual and physical mobility obviously provide an enrichment to the regular educational environment of higher education institutions. Teachers and students benefit linguistically, culturally and educationally from the experience of other European countries and of their (academic) fields of study.

Virtual mobility enables European wide exchanges for all those not able to benefit from existing physical international exchange programmes, due to social, economical, organisational or other reasons and can therefore offer the advantages and benefits of real mobility to a wider community. In the following sections, we summarise some of the main advantages of Virtual Mobility for different actors (students, teachers and institutions).

6.1 FOR STUDENTS, TRAINEES AND LIFELONG LEARNERS

Virtual mobility has pedagogical advantages and enriches the more traditional learning activities. The learning process can be improved through interactive and collaborative learning. It integrates students in a collaborative learning environment while keeping the benefits of a structured presence in a university campus.

Furthermore, as indicated above, virtual mobility creates exchange opportunities for those students unable to participate in traditional Erasmus. It is affordable for practically the whole student community in Europe, rather than the small minority of students who are presently able to benefit from a mobility grant.

Introducing virtual mobility schemes means learning is no longer location dependent and learners are able to take courses independently of their physical location, be it their homes, their places of employment or while staying as an ERASMUS student at a host university and taking a course from the home university or a third university.

The learning environment also becomes accessible to new, non-traditional and/or remote audiences that cannot attend classes on campus, lifelong learners and international students. Disadvantaged regions and individuals are more easily reached thus enhancing equal

opportunities for all.

The increasing access to high level learning opportunities to people who would not otherwise benefit from them contributes towards the democratisation of the learning experience.

Learners obtain flexibility in the learning process not previously known to them. There is a widening and improving of the learning offer from the student's point of view: they get access to experts from other institutions, courses, learning materials and resources (libraries, laboratories,...) far beyond their own campus or geographical area.

Students are provided with a more attractive offer, by extending their own programme with courses that are only available in partner universities. This encourages the learners' autonomy and gives them a broader choice on what, how and when to learn.

Expertise that is not available in a given university can be addressed and easily transported through the network. Certainly at postgraduate level it can be a competitive advantage to offer students the possibility to have direct access (be it virtually) to top experts in other European universities knowing they can be considered and approached in the partnerships as if they were 'own' or local professors. In this way, researchers can have access to highly qualified research resources and to experts in the field.

Students also have access to an international community of learners that is potentially linguistically and culturally diverse. Students are presented with cross-cultural viewpoints and given possibilities to discuss these viewpoints with fellow learners and tutors from other countries. This helps to develop the habit of intercultural communication for learning and non-learning purposes, so raising tolerance for difference and inter-cultural awareness and broadening or breaching cultural, social, and political boundaries.

Finally, internationalisation is becoming increasingly important in business environments. Through virtual mobility, both students and teachers will develop the necessary skills needed in working life. More specifically, it is a practical preparation for new ways of working, where

the use of tools like videoconferencing, and collaborative workspaces will be commonplace. Also, virtual mobility encourages students to learn to use the Internet effectively as a source of knowledge and information on top of other more traditional sources such as (digital) libraries, (online) databases, etc. This is an important skill for future workers.

6.2 FOR TEACHERS, TRAINERS, TRAINING MANAGERS, CURRICULUM DEVELOPERS

Virtual mobility opens up opportunities to teachers to collaborate not only on the design and development of courses but also on the delivery of courses, and on Internet or web based education materials and curricula. New degrees of collaborative work between geographically disparate teams are possible. Staff have the opportunity to work collaboratively and closely with their colleagues.

It helps teachers to reconsider their routine practice and to add innovative and quality elements in their courses to match the requests of a trans-national collaboration and of increased usability of teaching activity. Working on joint courses provides an international dimension and richness that supports the globalisation of education and life.

Virtual mobility gives educators, trainers and learners with different worldviews the opportunity to exchange ideas and information, and learn from each other, thus expanding each participant's global view and gaining a broader perspective on a specific subject as well as on the world in general. Working in cross-border teams can develop a true sense of European citizenship.

6.3 FOR HIGHER EDUCATION INSTITUTIONS

At the institutional level, virtual mobility initiatives enhance competition between institutions and thus contribute to the competitiveness and attractiveness of the educational offer in general. It gives extra-institutional visibility to excellent knowledge and know-how developed in a given university. A sound competition can boost the quality of education within each partner institution.

Virtual Mobility also encourages institutions to adapt and further develop their pedagogical models so they would be more suitable for e-learning. Networking and synergies between institutions will lead to a better quality of the programmes and courses and make higher education institutions stronger as they can operate on a European scale. Adding a European dimension to their offer will create attractive virtual mobility schemes for students.

Networking can also contribute to the quality of education by organised introduction and operation of quality assurance systems and offering a comprehensive approach to accreditation and benchmarking.

Virtual Mobility increases a broader participation in learning: it is possible to 'accommodate' more students and it could thus enlarge the 'customer base' of an institution. The opportunity to widen the range of potential students through virtual mobility can help make programmes struggling with small enrolments locally sustainable.

For the universities the opportunity is offered to diversify programmes and to bring in the best courses, the best teachers, the top researchers (in the country, in Europe, in the world) in their learning offer. It facilitates acquisition of relevant competencies and know-how from partner universities. The radical extension of course offer of an individual organisation comes without substantial investment by involving course offers from other members of the network. This can result in better use of resources and increased competitiveness and profitability of investments.

Universities also have more opportunities for collaboration with the commercial sector. Knowledge transfer between the academic world and the industry can be eased and increased through various virtual mobility activities such as virtual seminars and virtual internships.

CHALLENGES & RECOMMENDATIONS



The challenges and recommendations given in this chapter are based on the findings of the REVE workshops that took place on 23 June 2005 in Helsinki (FI) and on 17 June 2006 in Vienna (AT) and the debates that took place at the Being Mobile workshops on 31 March 2006 in Vilnius. Findings from the activities and projects described above have also been included here.

7.1 ORGANISATIONAL CHALLENGES

7.1.1 Planning

Virtual Mobility initiatives require a high level of organisation. In fact, as Virtual Mobility is a complex recent phenomenon, most of its 'disadvantages' have to do with organisational aspects. That is why they should be seen as challenges that need to -and can be- solved, rather than as disadvantages.

A detailed planning and a clear distribution of roles should be made prior to the activity. It is recommended to create a detailed profile of each party involved (student/teacher/support person/management etc.) This distribution of roles demands clear guidelines as to exactly what is expected in terms of international collaboration. This could be accompanied by measurable criteria. A detailed planning is very important, not only for the activity to succeed, but also to prevent a lack of commitment or participation from one or more of the partners. A good planning can also avoid disappointment as well as clarifying and making explicit the objectives.

An important aspect of good planning is good timing: Activities should begin and end about the same time in the different participating institutions because staggered timing is experienced as being quite disturbing. It does not need further explanation that different vacations, exams, student trips and geographical time differences between participating institutions ask for a sound time-table, agreed upon at the beginning of the activity.

Attention should be paid to the academic calendars of the institutions. When studying abroad students move to the host country and adapt to the academic calendar of the host country. But when collaborating virtually - while staying in your home country – it is much harder to adapt to the academic calendar of the host country, not only for the students, but also for the teachers.

A limited number of face-to-face meetings are recommended. When participants meet each other physically, it is more likely that a feeling of trust and responsibility towards each other arises, which can only benefit the activity. First of all a face-to-face meeting among teachers, prior to the activity, is suggested. This way they can not only socialise, but also elaborate a planning. Another meeting mid-way through the activity with all participants then enables students to meet each other. It is important to include enough time for socialisation during these meetings in order to stimulate the motivation. If this is not possible, then it is important to make sure there are moments of synchronous communication, like chat or webconferences. This serves the same purpose of building a real learning community, motivating students to persist in their efforts. This is illustrated in some examples in the previous chapters (e.g. International Student Business Challenge, Cinema and Literature course, Kremlin internships).

From an organisational point of view, it is recommended to register the virtual activity as a regular course (or internship). This way it will not clash with national level activities and will have a high priority amongst teachers and students. This registration also opens the path to link the activity to the accreditation system. A good way to introduce virtual mobility in a curriculum is to incorporate virtual activities in existing courses (See examples of activities above).

A final guideline for the organisation is to allow enough time for teachers and students to work on the virtual activities. Especially for the teachers, e-coaching is a very time-consuming job which is often underestimated.

7.1.2 Agreements and legislations

The need for a legal framework – comparable with the real ERASMUS – is felt by most actors involved in Virtual Mobility activities. In the REVE manual³⁶, Isabel Perez from the University of Granada (ES) states that even today, legislation or internal university rules often still make it rather hard to set up Virtual Mobility activities. Physical ERASMUS has been made possible thanks to the establishment of several agreements between European universities: these are general agreements involving the whole institution or bilateral ones between two departments.

At the moment, many of the virtual exchanges happening in Higher Education institutions found their origin in personal contacts of the teaching staff taking part. It would, however, be better to look for broader solutions and even work on a European level. True student mobility requires more comprehensive frameworks, similar to those in existence for the Erasmus programme.

The participants of the REVE workshop in Vienna generally felt that in order to ensure that Virtual Mobility is embedded within the mainstream activities of institutions, it must be supported under the existing ERASMUS procedures and support structures so it really can become “Virtual ERASMUS”.

This can only be realised if these procedures are adapted to the reality of Virtual Mobility, taking into account aspects such as tutoring conditions, authentication of users and (ac)creditation.

Other problems can occur because of national regulations. Some countries in Europe still have legislation in place which prevents the official recognition of qualifications gained by distance learning, and in many countries they are regarded as inferior qualifications. Also the language in which the course is taught can be a problem from a legal point of view: in Belgium there is a national government rule which forbids there being more than 10% of the courses in English. In Virtual Mobility activities, however, it is important to find a working language that is used by all students and teachers.

³⁶ Virtual Mobility Manual “How to teach internationally from your own desk?” available at <http://reve.europace.org/drupal/>

7.1.3 Credit Transfer

The European Credit Transfer System (ECTS) is the most commonly used tool to facilitate the accreditation of student study in physical ERASMUS exchanges. It has proven to be an excellent tool for the creation of transparency of the study programmes, for “building bridges” between institutions and widening the choices available to students. The system makes it easier for institutions to recognise the learning achievements of students through the use of commonly understood measurements - credits and grades - and it also provides a means to interpret national systems of higher education (Schreurs, 2006).³⁷

Unlike physical mobility supported by the ERASMUS programme, there are no clear regulations foreseen for Virtual Mobility. Therefore it is not clear which agreements are necessary and how credit transfer will be arranged. As such, Virtual Mobility has not yet been officially recognised.

It will be in everyone’s interest that the procedures and agreements for Virtual Mobility are as close as possible to the ones for physical mobility. However, some problems arise here. The ECTS system does not recognise and accredit the additional skills and competences that a student will have gained by taking part in a virtual exchange programme. In the cEVU³⁸ and REVE³⁹ projects that are mentioned in this book, the issue of (ac)creditation has been investigated and reported upon.

It is the view of the authors that the European Commission should further promote research on how a transparent structure for learner mobility across borders (both physical and virtual) can be reached.

37 Schreurs, B., Verjans, S. & Van Petegem, W. (2006) Towards Sustainable Virtual Mobility in Higher Education Institutions. To be published in conference proceedings of the EADTU conference: Widening Participation and Opportunities by e-Learning in Higher Education. Tallinn, 23-24 November, 2006.

38 cEVU manual available at <http://www.europace.org>

39 Virtual Mobility Manual “How to teach internationally from your own desk?” available at on <http://reve.europace.be/drupal>

7.1.4 Localisation

Virtual Erasmus courses allow students to participate in courses offered by another university anywhere in Europe. Possible settings range from courses offered by one university to students located anywhere to courses offered by a network of universities, which all provide teaching and tutoring support. In all cases, institutions, teachers and students are confronted with issues of localisation. The aim of localisation is to allow students from different locations to participate on equal terms in the same course.

Localisation means considering the relation between course, student and context of study. The challenge is to create a learning environment which allows for differences and at the same time makes a coherent learning experience possible. Differences are important; obviously you could use ICT as a basis for creating identical courses, but this is not the idea behind the concept of localisation. Instead we suggest making a virtue out of the European dissimilarity and understand differences as catalyst for development and also as a possibility for learning from each other. In the REVE⁴⁰ project different localisation scenarios have been elaborated in relation to language, culture, teaching methods, and learning environment.

7.2 PEDAGOGICAL CHALLENGES

A coherent e-learning pedagogy does not yet exist. The structure of the course, the content and the assignments given in traditional courses and programmes need to be adjusted in order to ensure they are suitable for Virtual Mobility course activities.

7.2.1 Didactical models

Network-based education, as opposed to ex-cathedra face-to-face lessons, and virtual learning spaces, as opposed to the blackboard

⁴⁰ Virtual Mobility Manual "How to teach internationally from your own desk?" available at on <http://reve.europace.be/drupal>

require changes in pedagogy and didactical models. Models such as guided independent self-study, problem-based learning and project-based learning, become increasingly important. Only in this way it can be avoided that learning through technologies becomes an impoverished replacement for face-to-face learning.

Some of the virtual learning activities described in this publication (for example the Cinema and Literature course or the Kremlin virtual internships), are based on these new models. In these examples, students have a lot of responsibility with respect to the learning path and the role of the teacher is that of a “guide on the side”.

STUDENT MOTIVATION

Motivation is a very important factor for the success of Virtual Mobility schemes. Distance learning courses and virtual internships formerly had a high number of dropouts because of a lack of motivation on the part of students.

Motivation can, however, be increased. First of all, this can be done by avoiding isolation. In general, students in Virtual Mobility schemes need more guidance, a stronger agenda and better and more continuous communication. The Virtual Mobility activities in this handbook use, amongst other means, e-mail, forums, chat and conferencing systems that allow students to regularly contact each other. It also allows for a quick response and feedback from teachers, which helps them to improve their work and adjust their study habits on time. As with regular teaching, social integration thus plays an important role in distance learning.

Motivation can also be increased by giving the students more responsibility in planning and scheduling the learning. Following the principles of the “Guided Independent Learning” concept, they are stimulated by an active learning environment in which they can act as researchers responsible for their own learning and in which the teacher becomes responsible for the provision of adequate support

(Elen, 2003).⁴¹

7.2.2 Working methods

In Virtual Mobility activities, it is important to integrate a good mix of working methods. Because face-to-face meetings can never be totally replaced, virtual teaching methods should exist next to and in combination with traditional teaching methods. This is also called “Blended Learning”. “Virtual moments combined with contact moments work the best”. This is a conclusion reached by the teachers in the Cinema and Literature example given earlier. In fact, most of the examples we elaborated in this publication used a model of blended learning, where group assignments were made through ICT but where a minimum of face-to-face contact between teachers and students was made possible. When designing the learning activities and assignments, it is also important to take into account differences in communication styles between students: Some participate actively in a forum and chat sessions, while others are more observers. Some students never enter a forum at all. And this has not only to do with personal characteristics, but also with cultural differences and social backgrounds. Having a variety of working methods also increases students’ and teachers’ motivation.

7.2.3 Assessment

A virtual activity should result in a real assessment, that is, the activity should be awarded (ECTS) credits. If not, it is difficult to motivate students to participate, especially since they want to be rewarded for the time and effort they have put in.

The assessment procedures are not easy to design. Assessments for Virtual Mobility initiatives need to be designed according to the pedagogical principles and the goals of the activities. If the learning activities focus on collaborative work, it may be important to build

41 Elen, J. (2003) The Reality of Excellence in Higher Education: The Case of Guided Independent Learning at the K.U.Leuven. In: Decorte E. (Ed.) (2003) Excellence in higher education. London, Portland Press.

the assessment not only on study results and products but even more on the study process. Therefore, assessment and feedback from the teacher throughout the learning activities is very important, and not only at the end. This will also increase student motivation.

For example, assessment in a virtual collaboration environment could be based upon participation in the discussion forums and chat sessions, the writing of papers, the engagement in online group work and online tests (such as supported by QuestionMark Perception).

However, assessment in a virtual environment is not without difficulties. In a lot of cases, there are problems with authentication. Can forum attendance properly be controlled for online learners? Has the student really written his/her paper?

Problems with assessment can also arise because of institutional regulations. A possible tool for assessment could be to track user participation through the analysis of user log files (logging features). Some universities, however, do not allow online assessment. In other universities it may be forbidden to use logging features for assessment (e.g. due to privacy reasons).

7.3 TECHNOLOGICAL CHALLENGES

7.3.1 Training and support

Virtual Mobility will only succeed if teachers, students and technical staff are trained beforehand. The training and support encompasses different aspects of technology, ranging from technical support of the technology, over pure control and usability of the technology to appropriate application of the right technology in the right circumstances (“the right tool for the job”) and in the correct way. In the following paragraphs, some central issues regarding training and support will be highlighted.

Students need to be “e-literate” and if not, they should receive appropriate training. Being “e-literate” means that they should be able to find their way through the current overload of information offered by various information channels including the Internet, digital libraries, online journals, databases etc. Michielsens e.a.(2006)⁴². They need the skills to exploit technology to use information effectively. Furthermore, they have to learn how to be structured and self-organised, keeping time and meeting deadlines and should respect some basic netiquette.

These characteristics are also important for the teachers. In order to fulfil their role as e-coach and guide of a virtual student group as well as possible, it is clear they too need appropriate training.

Training, distribution of manuals and codes of conduct on the use of ICT can solve the possible lack of technical knowledge and e-literacy. Quite a few problems can also be avoided by defining properly what prerequisite e-skills one should have before participating in a Virtual Mobility activity.

Not only prior to the start of the course, but also during the activity itself, training and support should be provided. Therefore, the organising institutions should make clear agreements with one another as to who is responsible for support (the home university or the host university) and on how support is provided. This will help to avoid problems and misunderstandings.

It is also recommended to find out before the start of the course which training and support activities are available at a particular institution. The current situation in many HEIs across Europe is that the necessary training and support for virtual mobility and e-learning is still minimal or even non-existent. Traditional higher education institutions are not always equipped to deal with e-learning on a larger scale and thus also do not always offer a widespread training and support to teachers who want to engage in virtual mobility. However, if the need and demand for support in new technologies and new didactic models

42 Michielsens, C., Van Petegem W. & Verjans S. (2006). E-literacy and the Role of Academic Libraries in Lifelong Learning. Proceedings of the EDEN 2006 Annual Conference: e-Competences for life, employment and innovation. Vienna, June 14-17, 2006. p. 585-590.

(specifically for e-learning) increase, the facilities offered at traditional educational institutions will also naturally be extended and amended to answer this demand.

Often pilot virtual mobility activities also offer the possibility to institutions to build expertise in new technologies (e.g. in the International Student Business Challenge⁴³). This is certainly beneficial on an institutional level.

It is also greatly recommended that training in new technologies is structured in bite-size modules and that these modules are accredited. Especially for in-service teachers, this would be a great boost to try out virtual mobility activities in traditional education as they are encouraged to work on improving their own skills and by extension to build their career. However, it is still the case in many traditional higher education institutions that teachers are evaluated more on their research activities than on their teaching activities. This is still a major hurdle for enthusiastic teachers.

7.3.2 Technologies

An important condition for all participants in Virtual Mobility initiatives is having the required technological knowledge and equipment. It is important to keep in mind that not everyone has the same access to technologies. Course materials that force students to download large files should be avoided, as broadband connections are not always guaranteed throughout Europe. It is recommended to use a document format that can be read by everyone and that does not take much space (such as pdf).

The institution's digital platform should provide the full range of technologies that support all necessary pedagogical functions such as video- and webconferencing tools, forums, email, chat, negotiation tools, document- and application sharing. This platform should also be available for all virtual students.

⁴³ Van Beylen, M, Smeuninx, J. Rajagopal, K, (2006). "International Student Business Challenge", SPACE conference Vilnius workshop

When students want to follow a joint course programme, they need to have access to the central virtual learning platform where the course activities take place. It is possible that this learning platform is connected to an institution (this can be the home or host university). A possible obstacle here is that a particular institution's platform is only accessible to students enrolled at that institution and not to others. Creating separate online environments for international virtual courses can be too expensive, complex and inconsistent. Solutions for this issue need to be thought out on an institutional level including inputs from teaching staff, technical staff and administrative staff. One possible solution is creating a special "virtual student" profile for off-campus students, as was done for off-campus Erasmus Mundus students at the K.U.Leuven.⁴⁴ (Rajagopal, 2006).

This issue of managing access to various resources at different HEIs extends further than virtual mobility alone. Even in physical mobility (e.g. Erasmus) or research activities, teachers and students need access to various virtual platforms, online databases, digital libraries etc. A relatively easy way in which institutions can overcome this problem is to work towards Single Sign-On systems, such as Shibboleth. These systems are advantageous for the institutions as they encourage trust frameworks in networks of networks of organisations, but also for the individual users, who do not have to keep track of multiple digital identities.

When using systems such as Shibboleth, institutions engage in a trust framework, in which they agree to give individual users access to certain facilities on the basis of their affiliation to a known institution. The student's identity is always managed by the home institution and is not shared with the host institution. As a result, the student has just one identity, allowing access to secured resources both at the home as the host institution. An in-depth study of the Shibboleth technology has been made during the VICTORIOUS project and can be accessed on

44 Rajagopal, K., W. Van Petegem and S. Verjans (2006). A Need for Virtual Mobility in Mainstream Education: Case Study of the Erasmus Mundus Programmes at the K.U.Leuven, Belgium. *EDEN 2006 Annual Conference: e-Competences for life, employment and innovation*. A. Szucz and I. Bø (Eds.). Vienna University of Technology, Austria, European and E-Learning Network. 14-17 June 2006, pp. 284-289.

the project website.⁴⁵

However, as the diversity of ICT tools is growing, so do issues related to a lack of interoperability between the different e-learning platforms used in the collaborating institutions. Market leaders such as Blackboard and WebCT are often used, but more and more universities use different, open source environments. In an international context, students as well as teachers are confronted with different online learning environments. Transferring course content from one platform to the other is not straightforward. This is particularly an issue for students who are abroad for a period of their study and wish to have access to online content and their own work even after their study abroad. Interoperability between learning environments and ways to overcome disparities have been extensively researched in the VICTORIOUS project.⁴⁶

In this chapter, it has been explained that there are a number of challenges facing wide-spread Virtual Mobility. These challenges are mainly on organisational, pedagogical and technological level. As the need for Virtual Mobility grows, we believe these challenges can be overcome. Based on the activities and projects described in the previous chapters, we have also distilled some recommendations for people interested in organising virtual mobility activities.

45 The outputs of the VICTORIOUS project will be available in a handbook from January 2007 onwards. More information on this project is available at <http://www.victorious-project.org>

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CONCLUSION



Through the use of ICT, students and teachers can experience international exchanges of expertise while staying at home. As mobility and internationalisation are becoming increasingly important in today's society, this is a significant evolution for those not able to enjoy any physical exchange.

Although Virtual Mobility is at the centre of attention among e-learning and ODL professionals, academic staff members are still not very well aware of the opportunities such schemes provide for them (Mazar e.a. 2006)⁴⁷. To reach a reasonable level of sustainability, it is important not to rely on dedicated enthusiastic teachers only, but to make Virtual Mobility a mainstream opportunity for all parties involved.

A lot of Virtual Mobility activities are taking place today in the framework of European Commission supported projects, mainly under the Socrates and eLearning programmes. They aim to raise awareness about the advantages and the opportunities afforded through different kinds of Virtual Mobility by producing guidelines, procedures, pedagogical models, manuals and handbooks. The Being Mobile team is specifically promoting the take-up of Virtual Mobility through making available the outcomes of these current and previous Socrates and e-learning projects. Doing so, Being Mobile aims to foster European cooperation in education.

The activities described in this publication have shown that a variety of technologies are being used to enable Virtual Mobility: videoconferencing, virtual learning environments as well as more commonly accessible media such as forums, chat and e-mail. In most cases, these virtual activities have been combined with face-to-face experiences, such as class discussions, seminars and the physical presence of guest lecturers. The activities also demonstrated that there are both advantages as well as disadvantages with regards to the virtual elements in them.

47 MÁZÁR, I. and OP DE BEECK, I. (2006) "REVE - Real Virtual Erasmus: opportunities and challenges." In: Proceedings of the 17th SPACE Annual General Meeting (SPACE and Being Mobile Conference sessions and workshops). Vilnius, March 29 - April 1, 2006, pp.44-51.

As Virtual Mobility is only a recent phenomenon, most of these 'disadvantages' have to do with organisational aspects. That is why they should not be called disadvantages, but challenges that need to -and can - be solved.

In order to avoid many of these organisational problems related to Virtual Mobility, we recommend the arrangements for Virtual Mobility to be as close as possible to those for physical ERASMUS, more specifically when it comes to agreements, accreditation & ECTS, fees and access to technology.

A coherent e-learning pedagogy on how to organise Virtual Mobility initiatives does not yet exist. The experiences described in this publication have shown us, for example that in general, students require more guidance and communication from and with their teachers. The assessment procedures are also not easy to design. They should be built not only on study results and products but even more on the study process.

The virtual components in mobility activities should be well thought through since they have a huge impact on the pedagogy, the support, the assessment procedures and the practical organisation of collaborative activities. The technological infrastructure needs to be optimal and the envisaged activities should be adapted to the level of IT skills of learners and teachers. Another key factor is to provide the appropriate training and support.

There are several reasons why the hurdles of setting up Virtual Mobility initiatives should be overcome and why Virtual Mobility should play a bigger part in higher education. First of all, Virtual Mobility provides an enrichment to the regular educational environment of all institutions. In addition, internationalisation is becoming increasingly important in business environments. Through Virtual Mobility, both students and teachers develop the necessary skills needed in working life. Furthermore, Virtual Mobility enables European wide exchanges for all those not able to benefit from existing face-to-face programmes, due to social, financial or other reasons, which is, at the moment, more than 99% of students. Finally, teachers and students who learn to work together in cross border teams can develop a greater sense of

European Citizenship.

Thanks to their community support, the European Commission gives pioneer practitioners and pilot projects the opportunity to demonstrate these benefits. Only when all stakeholders (staff, students, management in institutions and policy makers) will recognise these, Virtual Mobility initiatives can be integrated in mainstream education and become sustainable in the long term.

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In recent years several educational Virtual Mobility initiatives have been conducted in different countries, many of whom are largely unaware of one another. But when such an activity or project comes to an end, what is the next step, if any?

It is clear that there is a definite need for the results of projects in this domain to be made available to the wider educational community through various dissemination activities. This is the only way to ensure that Virtual Mobility moves from pilot level towards integration in mainstream education. And that is the purpose of this publication: to disseminate the outcomes of past and current projects and their activities in the field of Virtual Mobility.

With this handbook we would like to provide answers for practitioners in the field. It includes examples of best practice, advantages, challenges and recommendations.

