Abstract: The European project EU-VIP (Enterprise-University Virtual Placements) looks into the possibilities virtual mobility can offer in the area of international work placements. The project partnership started by putting together a framework for organizing virtually supported work placements. This framework was used to design and implement 18 pilot projects. Based on the results of these pilots the framework is being updated and critical success factors for integrating virtual mobility in international work placements are being identified. The final guidelines on how international work placements can be supported and/or facilitated through virtual mobility will be ready and available by fall 2011.

Background and concepts
Virtual mobility can be an alternative or an addition to physical mobility when it comes to realizing the goals of internationalizing European higher education. Virtual mobility is a term that has a broad scope. At the Media and Learning Unit of the K.U.Leuven (BE), we define the concept of virtual mobility as „a set of ICT-supported activities that realize or facilitate international, collaborative experiences in a context of teaching and/or learning“. There are different types of virtual mobility that can be distinguished: virtual mobility to facilitate or realize an international exchange, virtual mobility to facilitate or realize international work placements or virtual mobility as a scenario to internationalise a curriculum, (part of) a course, an assignment, a seminar, etc. In this paper we will focus on the enhancement of international work placements through the use of new technologies.

Work placements are an important way of exposing college students to complex work problems that require analytical, technical and soft skills. They play an essential role in helping graduates obtain the competencies and skills that are necessary in a dynamic knowledge economy. In a context of increasing global economic connectivity and interdependence, gaining practical work experience in an international environment is also becoming more and more important. However, traditional international work placements, where the learner travels to the company abroad, require a high degree of flexibility and there are regularly financial, geographical, social and other barriers to such physical mobility.

For those physical placements abroad that do happen, there are also a number of difficulties to overcome, e.g. students receive insufficient and discontinuous feedback from their home institution, communication between the enterprise and the higher education institution is often lacking, feedback about a placement at an enterprise to the higher education institution and vice-versa is barely formalized, etc.

In this paper we will present the preliminary results of the EU-VIP project (www.euvip.eu). EU-VIP stands for Enterprise-University Virtual Placements. In answer to the issues raised above, this project looks into the possibilities virtual mobility can offer in the area of international work placements.

The integration of virtual mobility activities in international work placements can vary on a scale from very limited to a fully virtual work placement, in which the trainee never has physical contact with company staff.

About the project
EU-VIP is funded with support of the European Commission under the Lifelong Learning Programme (Erasmus – Multilateral Projects – Cooperation between Universities and Enterprises). The project brings together 16 partners from 8 different countries. To ensure the success of the project all stakeholder groups are represented: the consortium is composed of higher education institutions and European not-for profit associations of universities, businesses and students:

- Katholieke Universiteit Leuven (BE), coordinator
- University of Padova (IT)
- University of Groningen (NL)
- EADTU (NL)
- Aalto University (FI)
- Coimbra Group (BE)
- EuroPACE ivzw (BE)
- West Pomerian Business School (PL)
- FernUniversität Hagen (DE)
- EFMD (BE)
- Laurea University of Applied Sciences (FI)
- BEST (FR)
- EAL, TietgenSkolen (DK)
The main aim of EU-VIP is to develop online and printed guidelines on how international work placements can be supported and/or facilitated through virtual mobility. The project runs from October 2009 until September 2011.

The project partnership started by putting together a framework for organizing virtually supported work placements. In essence this framework starts from the same basic principles that are valid for traditional work placements, but with an extra focus on special attention points and issues related to the implementation of virtual mobility activities.

The general framework was used to design and implement 18 pilot projects. These pilots all vary on the scale from a very limited to a very far reaching integration of virtual mobility activities. Before executing the pilots, all participants (students, teaching staff, administrative staff, company mentors...) receive local training adapted to their specific needs. After pilot execution, all participants contribute to the evaluation of the pilot, via surveys and/or interviews. The feedback from the pilot participants is used to further expand and fine-tune the guidelines. The added value of this approach is the fact that the guidelines will be linked to concrete experiences of all stakeholder groups and focus on answering their real needs.

The EU-VIP framework

Pedagogical foundations

The way in which an internship mainly differs from a temporary student job is the inclusion of an intentional learning agenda in the experience [5]. Therefore, to design a virtual or a blended work placement effectively, we need to start from a solid pedagogical basis. This basis is found in the ideas underpinning work-based learning. The most important among these ideas are:

- **Learning through experience and reflection**
  Experiential approaches to learning have developed from the work of Kolb (the experiential learning cycle). This view on learning stresses the importance of a direct learning experience. It includes both theoretical and practical elements in the learning process. Experiential learning involves three phases: preparation, action and experiences, reflection. In work placements there needs to be a special focus on stimulating student reflection and self-assessment regarding the learning process that is structured into the experience.

- **Learning in an authentic context**
  In work-based learning, the learning experience starts from realistic, authentic problems. This approach emphasizes the importance of informal learning to develop skills and expertise in an authentic context.

- **Learning as a social process**
  Any work experience is situated within a social context. The learner becomes part of a new community whilst still retaining links with and drawing support from the educational community in which she/he operates. This view has its basis in a socio-constructivist approach where learners build upon their previous experiences in interaction with peers and tutors to construct new knowledge and skills.

Work placements need to be designed according to these learning strategies in order to be successful. When organizing virtual or blended placements the technology needs to be chosen and used in such way that the necessary learning processes are stimulated.

The different actors

There are always various actors involved in a work placement process. Within the higher education institutions we can distinguish two groups:

- the administrative staff to support and organize the practical side of the work placement,
- the academic mentor, supporting the student’s learning process and responsible for the end evaluation.

Ideally there is also a mentor appointed within the company who is responsible for guiding the student during the assignments and through the organization’s social and cultural aspects.

Centrally in the work placement stands of course the student who aims to reach his/her learning goals, under guidance of his/her mentors.

The different phases in a work placement

Looked at from a time perspective, we can distinguish 3 different phases in a work placement: before, during and after the placement. The preparatory phase in which the conditions for organizing virtual(ly) supported placements are created (e.g. accreditation issues, curriculum development, installing technologies and developing services), is not dealt with here. In each of the addressed phases one or more different actors (students, higher education staff and/or business representatives) are involved and virtual mobility activities can help to enable an optimal interaction between the different stakeholders. Every phase has its own attention
points and issues. Below we will give a short description of the different phases and illustrate the integration of virtual mobility activities with concrete examples from the EU-VIP pilot projects and other good practices.

**Before the work placement**
In this phase preparations need to be made to ensure a successful placement. This means in first instance the design of the concrete placement in line with solid pedagogical foundations. The EU-VIP partnership supports the ideas underpinning work-based learning (see above).

Figure 1 is a visual representation of the main issues and tasks at hand for the different stakeholders in this phase.

![Figure 1. A visual representation of the phase preceding the work placement](image)

In this phase it is essential to plan the placement thoroughly in all its aspects. Ideally all of these agreements, responsibilities and procedures are in the end part of a written agreement between all actors.

**Examples of virtual mobility activities in the before phase:**
- In the pilot project organized by the University of Turku (FI) an offer for an international placement was made by TURKU-Southwest Finland European Office located in Brussels (BE). To select the right student (in political sciences) for the job the organization organized Skype interviews with the candidates. After the student selection, Skype was also used to make the first arrangements regarding the placement. This same method of student selection via Skype was also used in the pilot project of K.U.Leuven (BE) where a student in Cultural Studies is performing a fully virtual placement for CID (International Dance Council of UNESCO, FR).
- The University of Padua (IT) uses video CV’s in which students can present themselves to foreign companies. The video CV has proven to be an effective way for students to introduce themselves to companies abroad, with a focus on demonstrating their communicative and linguistic skills. The video CV’s are offered via an online platform which also provides a chat function through which remote interviews between the students and the interested companies take place.
- As stated above, a thorough planning of the work placement in the before phase is of great importance to the future success of the placement. To make this joint planning between all stakeholders possible in a cross-border context, the University of Padua (IT) used video conferencing technology in their pilot. This technology proved to be very effective because of its close resemblance to a face-to-face meeting.

**During the work placement**
During the placement the focus will of course be on the development of knowledge and skills through practical and authentic tasks. Next to discipline specific competencies the student will ideally also have the opportunity to work on generic skills like international, teamwork, social and communication skills. To stimulate this learning process coaching and feedback from academic and company mentor are essential. All coaching activities also have to be in line with each other.
Examples of virtual mobility activities in the during phase:

- In a number of pilot projects the work placement took place at a distance, with the student staying at home (for different reasons, e.g. the family situation) while performing authentic tasks for a company abroad. To ensure a good communication and collaboration with the company staff, detailed agreements (‘communication protocols’) were put into place. Technologies as Skype, Adobe Connect and video conferencing (enabling face-to-face communication) resulted in a more personal contact and a feeling of mutual responsibility between the actors involved.

- As stated above, reflection and self-assessment are essential to the learning process of a student during a placement. Technology solutions prove to be very effective in stimulating and facilitating this – even when the student is undertaking a placement abroad. The project from Aalto University (FI) is therefore looking at the integration of e-portfolio technologies through which the student and his academic mentor can keep track of and reflect upon the progress regarding the student’s skills development. The pilots from K.U.Leuven (BE) focus on the use of (video) blogging to stimulate student reflection and to improve student follow-up by the academic responsible. In the University of Groningen (NL) the choice was made to use Skype on a regular basis to improve intermediary communication with the academic mentor.

- The KHLeeuven (BE) organized a pilot in which students in business studies, undertaking a work placement abroad, participated in a weekly seminar at their home institution through video conferencing. These seminars took place together with their peers at home and were aimed at exchanging experiences regarding local and international work placements. This way the students at home had the opportunity to share the international experience. The students abroad were able to reflect better on the differences in business culture. Next to this the students also used an e-portfolio and an online self-assessment tool to monitor their own learning process.

After the work placement

In this phase evaluation is the central theme. Firstly there is the evaluation of the student according to the formulated criteria. Ideally the end evaluation or accreditation will be based on a joint decision of the company and the academic mentor; although the academic mentor will normally hold the end responsibility. Mostly, the student will also be asked to write a final report on the work placement, including a reflective self-assessment. The cooperation between higher education institution and the company/organization should also be assessed. Strong points and future opportunities need to be identified. Problems or difficulties should be examined so they can be avoided in the future. If the cooperation was really problematic, the possibility to find other hosting companies needs to be looked at.
Examples of virtual mobility activities in the after phase:
- FernUni in Hagen (DE) developed a Moodle platform to support students undertaking a work placement in all phases. During the placement the students keep track of their progress through the e-portfolio function. They also have the opportunity to communicate with peers through the discussion forum. This results in a detailed log of the work placement, accessible to all actors during and after the placement. The student uses this log to perform a self-assessment and the mentors can take it into account when deciding on the end evaluation and accreditation of the placement.
- The University of Groningen (NL) uses a comparable platform in Blackboard. The aim of this platform is also to support students throughout their placement abroad. After their placements students also have the opportunity to report on their experiences with a certain employer. This feedback is available via the platform for all future trainees.
- In the fully virtual placement organized by the K.U.Leuven (BE) the blog the student writes to report on his progress, will be used to replace the ‘normal’ (in case of a real placement) paper report. The end evaluation will be based on this report in combination with a Skype meeting between academic and company mentor.

Critical success factors
Based on the implementation and evaluation of the pilot projects so far, the EU-VIP partnership has already managed to identify a number of factors that appear to be essential when it comes to a successful implementation of virtual mobility activities in international internships.

Student characteristics
Different pilots indicate that students undertaking a work placement at-a-distance through virtual mobility activities need to have good meta-cognitive skills, i.e. they need to be able to take control of and plan their own learning process.

Next to this, intrinsic student motivation to bring the placement to a successful end has been identified as an essential condition for success. Of course this initial motivation needs to be stimulated and fed throughout the placement. The pilots have shown that motivation can be influenced positively by clear agreements, by making sure the technology is an aid and not a barrier and by integrating human presence in the experience (see below). Coaching and feedback are also important ways to enhance student motivation.

Furthermore, student motivation is likely to increase if the tasks are authentic and in line with the student’s competencies. This task should be of real value to the company/organization. In terms of difficulty, a good task is feasible and challenging at the same time.

The before phase
The importance of the before phase cannot be emphasized enough. Virtual(ly supported) work placements need to be designed and planned carefully in all their aspects: communication, goals, roles, tasks or responsibilities, feedback procedures etc. Even though this aspect is without any doubt also very important in case of ‘traditional’ work placements, the pilot projects show that this need is even stronger when virtual mobility activities are involved.
Communication protocol
In the before phase it is advised to draw up a communication protocol, certainly when communication will solely or mostly be taking place virtually. Such a protocol can state when the different actors are available for synchronous communication, how much time can pass before an email needs to be answered, which technologies will be used for which ends, when reporting is required, how the coaching process will be organized etc. In the light of building a personal relationship between the student and his/her ‘virtual’ co-workers, it is also advisable to define space for not-task-related communication.

The human factor
Research has shown that face-to-face contact at some point or on some level is beneficial to the success of the activities, because it builds a mutual feeling of trust and responsibility. The results of the pilot projects confirm the importance of the human factor. When it is not possible to meet face-to-face, the choice of technology seems to have an impact on the degree of involvement. A tool like video conferencing creates a much more personal interaction than for instance an asynchronous tool like email. As stated above (see ‘communication protocol’) it is advisable to consciously create space for ‘virtual’ social talk.

Organizational socialization
The overall design of the placement plays an important role in realizing “organizational socialization”, i.e. exposing the student to an organization’s social and cultural aspects and making him/her feel part of the organization/company. Organizational socialization is what makes the difference between conducting an isolated student project and undertaking a work placement. Concrete strategies for stimulating this in a virtual setting are for instance: creating an online environment through which the trainee is informed of the responsibilities of all his/her co-workers and through which he/she can contact them; letting the trainee participate in staff meetings via video conferencing; making sure the virtual intern is clearly introduced to all the co-workers in the same way as a ‘physical’ one.

The authenticity of the task and its real value for the employer are also determining factors in making the student feel part of the organization/company.

As stated above, work placements should enable learning as a social process (in interaction with others). In this light a choice for technologies that are aimed at facilitating collaboration processes is advised.

Intercultural skills development
International work placements are organized as a way of internationalizing curricula. The main aim of internationalization in higher education is to make sure the future work force develops the necessary intercultural competencies to function in a globalized economy. They need to be able to tolerate diversity and to embrace differences without feeling threatened in their own cultural identity.

It goes without saying that the intercultural experience through physical mobility differs from this experience through virtual mobility. The pilot projects show nevertheless that the development of intercultural competencies through virtual mobility is possible. Conditions for success are here:

- The academic mentor explicates from the beginning (before phase) what ‘intercultural competencies’ are and lets students reflect on the development of these competencies on a regular base. Peer feedback can also be very helpful to stimulate this reflection process.
- The focus needs to be more on written communication, differences in business culture and negotiation styles.
- Students preferably have previous experiences with virtual communication.

Technology support
The goal of technology use to support or organize work placements is to enhance the quality and possibilities. The pilot projects however indicate that tools can easily turn into a barrier when the participants lack in e-literacy or when the technology is not user-friendly and reliable. The availability of technology support before and during the placement therefore seems to be a critical success factor.

In conclusion
This paper looked into the possibilities that virtual mobility can offer in the area of international work placements and presented the preliminary results of the EU-funded project EU-VIP: a framework for organizing virtual(ly) supported work placements, concrete examples and pilot projects and critical success factors. The presented results will be discussed elaborately in the guidelines on integrating virtual mobility in work placements. The EU-VIP partners will publish these definite guidelines by fall 2011.
References