Innovative Models for Collaboration and Student Mobility in Europe

Results of EADTU’s Task Force and Peer Learning Activity on Virtual Mobility

May 2019
This document is based on input from:

- Recent documents of the European Commission
- European projects coordinated by EADTU (notably EPICS, NetCu, EMBED, e-SLP, EMC-LM)
- European projects coordinated by other organisations and universities
- A Peer Learning Activity (PLA) with a wide range of stakeholders (Maastricht, 12-13 December 2018)
- Last but not least good practices in Erasmus+ Strategic Partnerships and Erasmus Mundus programmes
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1. The European context

Next to the “classical” physical mobility scheme in the Erasmus+ programme (KA1), the European Commission stimulates blended and virtual mobility in more recent Erasmus+ actions, in particular in the initiatives on “strategic partnerships”, “knowledge alliances”, “sector skills”, “capacity building” and the “European universities” initiative. Herewith, the European Commission is following developments in blended and online education in European universities, which will extend blended and online teaching and learning activities within universities to activities between universities.

The “eU.University hub” for “online learning, blended/virtual mobility, virtual campuses and collaborative exchange of best practices”, initiated by the European Commission, will stimulate and empower universities for organizing blended and online education and virtual mobility. Its development starts in 2019 and ends in 2022.

In the Erasmus+ 2019 call, the European Commission defines virtual mobility as “a set of activities supported by Information and Communication Technologies, including e-learning, that realise or facilitate international, collaborative experiences in a context of teaching, training or learning”. This definition lays the focus of virtual mobility on fostering an international learning experience for students by international collaborative teaching and learning.

As will be demonstrated in this report, an international learning experience can be organized in a variety of ways, using the full spectrum between entirely face to face/physical up to completely virtual or online learning, always in a collaboration between universities. Blended international learning and blended mobility is combining both face to face and online activities.

In all Erasmus+ actions, blended and online learning and mobility are now suggested by the European Commission as innovative forms of education and collaboration as indicated here:

- **Strategic partnerships**
  Strategic partnerships foresee “the integration of a greater variety of study modes (distance, part-time, modular learning), notably through new forms of personalised learning, the strategic use of open educational resources and virtual mobility and virtual learning platforms”. Many partnerships have developed joint online seminars, courses, OERs and virtual mobility.

- **Knowledge alliances and Sector Skills actions**
  Knowledge Alliances and Sector Skills actions are “developing innovative teaching and training methodologies based on digital technologies, as well as virtual / blended mobility solutions for learners and staff”. They call upon “identifying the most appropriate delivery methodologies for the curricula, using innovative approaches to teaching and learning, as well as a strategic and integrated use of ICTs (e.g. blended learning, simulators, augmented reality, etc.), virtual/blended mobility solutions for learners and staff, and open educational resources (e.g. MOOC s)”.

Collaboration with external partners and with new target groups in the sphere of continuous education and professional development require the highest level of flexibility in order enable the involvement of students at work.

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As a side effect, continuous education and professional development in reality also act as places for experimentation for mainstream degree education as teaching and learning formats are transferred to the mainstream.

**Capacity building**

Also, the Capacity Building action is stimulating initiatives “providing education and training, notably the strategic use of open and flexible learning, virtual mobility, open educational resources and a better exploitation of the ICT potential”.

Herewith, the European Commission supports innovative modes of education in international collaboration and mobility with other continents. This will increase the scalability/flexibility, quality and cost-effectiveness of education in this area. Many examples have showed already the potential of new modes of teaching and learning in this area.

**The European universities initiative**

It is generally accepted that this will be a core action of the European Commission in the next years. European universities are meant to “significantly enhance mobility and foster high quality and excellence in education and research, by strengthening the link between teaching, research and innovation and knowledge transfer, by demonstrating the benefits of multilingual learning, the recognition of qualifications and by developing joint education and research programmes and projects.”

To achieve this objective, the European Commission proposes “an unparalleled initiative which requires a quantum leap in cooperation between all types of higher education institutions from all regions in Europe and at all levels of the organisation, across all areas of activity, from teaching and learning to research and innovation. Students, doctoral candidates and staff can move seamlessly (physically or virtually) to study, train, teach, do research, work, or share services in any of the partner institutions. Students customise their choice of where and what to study within the confines of pedagogically sound and logically structured study programmes between the different higher education institutions and other members of the alliance”.

Embedded mobility at all levels, including at bachelor, master and doctoral levels, is a standard feature. “At least 50% of the students within the alliance should benefit from such mobility, be it physical, virtual or blended. New joint and flexible curricula are delivered, where relevant, in the three cycles (bachelor, master and doctoral), based on cross-disciplinary/multi-disciplinary and cross-sectoral approaches, integrating innovative pedagogies, including the use of the latest digital technologies. While content is personalised, cooperation is global”.

European universities are “a European higher education inter-university ‘campus’, where typically students, doctoral candidates and staff can move seamlessly (physically or virtually) to study, train, teach, do research, work, or share services in any of the partner institutions”.

The ambition of the European Commission clearly is to transform international collaboration in order to strengthen European universities. Innovative educational and mobility formats are to be developed by universities in order to make this ambition happen. New technologies will extend the possibilities for such collaboration in an unprecedented way.

**The eU.University hub**

In a recent call in the framework of “European policy experimentations in the fields of Education and Training led by high-level public authorities”, the European Commission has proposed the creation of
a European-wide hub for “online learning, blended/virtual mobility, virtual campuses and the collaborative exchange of best practices.

This hub will be an instrument for the European Commission to promote online course/curriculum collaboration and virtual mobility in Europe”. It will include:

- **Training of staff**: “Trainings for academic staff on innovative pedagogies and curriculum design; spaces for discussions/for where teachers could exchange material and best practices and advertise training opportunities”;
- **Blended and digital learning**, for instance through the setting up of virtual classrooms: “spaces where universities/companies/research centres from different countries could organize joint virtual interactive classrooms, allowing groups of students, teachers and professionals to collaborate and interact with one another on specific topics or projects/courses/modules)”;
- **Blended mobility**: “the platform could be used to better prepare Erasmus+ KA1 participants for their individual mobility and foster cooperation after the mobility. In the context of KA2 (Strategic Partnerships, Capacity Building, Knowledge Alliances, Erasmus Mundus Joint Masters) it could facilitate transnational cooperation and complement mobility activities supported by these projects. Finally, it could be used to test new activities combining short-term physical mobility with a longer-term virtual exchanges period, to cater for needs of students which cannot or do not want to go for long-term mobility abroad”;
- The platform could “host collaborations between HEIs and employers and offer students the possibility to access work-based learning activities or work on projects proposed by employers. The platform should be developed as a host environment for existing EU, national or regional platforms and their activities, with the purpose to expand them and scale them up at European level”.

It is expected that the eU.University hub “promotes the scalability and transferability of innovative measures. Scaling up does not necessary only mean duplicating the tested measures on a larger number of beneficiaries. It should rather be understood as creating the best conditions for making the successfully tested measures part of a policy or a system”.

| ✓ | The European Commission is stimulating innovative developments in blended and online education in European universities, extending blended and online teaching and learning within universities to activities between universities. |
| ✓ | The European Commission is supporting blended/online education and related mobility schemes, next to the classical education and mobility formats. This will allow higher education to be more flexible, scalable, high quality and effective. |
| ✓ | With this support, European university networks and frontrunner universities will take the lead in the implementation innovative international education and mobility formats. This will add to the impact of internationalisation. |

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3 [https://eacea.ec.europa.eu/erasmus-plus/actions/key-action-3-support-for-policy-reform_en](https://eacea.ec.europa.eu/erasmus-plus/actions/key-action-3-support-for-policy-reform_en)
2. The Task Force and the Peer Learning Activity on Virtual Mobility

In this European context and anticipating on new developments, EADTU has established a Task Force Virtual Mobility (2018-2019), focusing on blended and online mobility in the context of international collaboration. The results of the Task Force were discussed in a Peer Learning Activity with a wider range of stakeholders on 12-13 December 2018.

EADTU Task force Virtual mobility

The main task of the Task force was the exploration of:

1. Good practices within and outside the EADTU membership of virtual mobility
   - Making an inventory of current good practices concerning virtual mobility VM models
   - Making an inventory of cooperation models for virtual exchange programs

2. New developments in the field of virtual mobility
   - Making Sharing of current institutional and curriculum-level plans for the development of VM
   - Identifying opportunities and obstacles in VM at institutional and student level

3. How virtual mobility can stimulate European university networks
   - Identifying Exploring the potential of VM within European university networks
   - Generating (political) support for VM becoming a mainstream mobility scheme

Previous work

The Task Force Virtual Mobility did not start from scratch as already main work was done by EADTU in this field, notably in the EPICS project (2011) and in drafting the EADTU Mobility Matrix (2018).

The EPICS project (European Portal of International Courses and Services)⁴ has resulted in an EPICS Manual for International Student Mobility and the EPICS portal, which might be used for virtual exchange mobility. Virtual Exchange was designed in close correspondence with the running mode of the physical Erasmus Programme. The major consequence of this decision was that the core of the ECTS agreements is respected, which is also the basis of the physical Erasmus scheme. The ECTS documents constitute a widely used and accepted way of communicating those elements of information which are useful for all learners (including mobile and non-mobile students), academic and administrative staff, employers and other stakeholders. Using ECTS key documents correctly ensures transparency and enhances quality in higher education.

The EADTU Mobility Matrix (2018)⁵ aligns with current mobility schemes of the European Commission, notably Erasmus+ KA1 Erasmus Mobility and the Erasmus Mundus Joint Masters Programmes, as well as with the ambitions of the EU and European Commission with regard to educational collaboration and mobility. It extended current schemes with a coherent view on virtual mobility. At the time of its publication, the European Universities initiative was not yet been taken. The matrix was also based on EU projects of last ten years, the EADTU Networked Curriculum Handbook and the LERU-report on collaborative curricula and related mobility⁶. It was discussed with universities in the membership of EADTU and on seminars European-wide.

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Organisation
EADTU was responsible for the coordination, organisation and communication within the Task Force Virtual Mobility.
It was chaired by George Ubachs, Managing Director EADTU. The group of experts consisted of EADTU member university representatives with a specific field of expertise or interest in international collaboration and virtual mobility.

Members
George Ubachs (EADTU, Chair)
Piet Henderikx (EADTU)
Ingrid Thaler (FernUni)
Esther Souto (UNED)
Carme Anguera Iglesias (UOC)
Jukka Lerkkanen (University of Jyväskylä)
Katrien Vanelven (KU-Leuven)
Susanne Koch (Norgesuniversitetet)
Sabine Bottin-Rouseau (FIED-UPMC)
Marinke Sussenbach (TU-Delft)
Sarah Guth, Erasmus+ Virtual Exchange consortium
Barbara Moser Mercer, InZone |Université de Genève
LERU and the Coimbra Group are represented by some of the TF-members

Meetings
Start-up online meeting 25th June 2018
2nd online meeting 3rd October 2018
3rd meeting was face-to-face at the OOFHEC2018 in Aarhus (DK) on 10 October 2018
4th meeting was organised jointly with the Peer Learning Activity on 12-13 December 2018, during the Maastricht Innovation days (MID2018)
5th meeting was on 29th April 2019

Method
A questionnaire has been sent to task force members to collect good practices from universities (See Annex 3). The results of this questionnaire were discussed. A report was mapping good practices and on further desk research. The mapping is based on current documents of the European Commission and on a further elaboration of elements of the EADTU Mobility Matrix.

Peer Learning Activity on Virtual Mobility
The PLA on Virtual Mobility was organised on 12-13th December 2018. The objective was to extend the data base of the Task Force with examples of good practice, to discuss the results and to reflect on good practices and policy recommendations prepared by the Task Force in an introductory document.

Point of departure was that all universities can organise education and mobility face to face, blended or online, depending on teaching and learning models and educational contexts. Taking into account new developments in European universities, a new and simple definition of mobility was proposed. From a university’s perspective, mobility takes place when two or more universities organise and recognise study periods followed by their students in an exchange program or in a networked/joint program. Stakeholders in international education reflected on the opportunities and barriers offered by virtual mobility.
Thirty experts participated in the PLA, including universities, university networks (universities form LERU, Coimbra Group), EADTU experts, national agencies (DAAD, DIKU, ACA) and public authorities (ministries, the European Commission).
3. The concept of mobility

International collaboration and mobility evolved over the last 30 years, not only due to European programmes (see above), but also to new practices in universities creatively building on the possibilities given by these programmes. This has led to the current situation with already a diversity of international collaboration and mobility formats.

However, the core goal of mobility is always the same: creating an international academic experience in a framework of collaboration between universities.

*Students* are main stakeholders in collaboration and mobility as the first objective is that they benefit from a rich international experience offered by mobility. *Universities* are benefiting as well, not only by enhancing their international profile and their attractiveness, but also by building alliances to strengthen education jointly with research and innovation. Their benefit will even be extended and consolidated through the European Universities initiative. *Teaching staff* will develop courses and curricula in this international setting, by which they can combine collaboration in education, research and innovation with their peers.

International collaboration and mobility are affected by the changing pedagogical landscape, characterized by increasingly innovative ICT-based modes of teaching and learning, evolving from traditional face-to-face to new forms of blended and online education. This will lead to new education and mobility formats.

**Trends in mobility: from Erasmus exchange to the European University initiative**

When the Erasmus programme started in 1987 and carried international mobility in Europe to unprecedented levels. The central objective was to create an international academic learning experience along an immersion in another university and country. The mobility scheme applied was straightforward: *physical exchange mobility* was organised between a home and a host university for a study period of three months up to one year. In general, this had not so much impact on courses, except eventually on the teaching language. The Erasmus exchange programme became one of the most successful European programmes.

Increasingly, universities established *international networked curricula*, using the Erasmus mobility scheme to organise a more structured mobility of students, notably by so-called *‘mobility windows’* established by international curriculum networks. In this network, each university retains its own programme, but opens a consistent mobility window for organized mobility flows from other universities. Networked curricula and mobility windows have an impact on curricula and courses, because universities divide (specialized) course packages between them and offer structured mobility flows within the network. This requires more complex decisions from all universities in the network.

From 2004 on, international *joint curricula and mobility* at the master and the doctoral level were promoted by Erasmus Mundus. As universities develop a programme together with a joint development team, they are co-owners of joint programme where students follow successive parts of the programme at different universities of the consortium. This requires joint decisions on the entire content and structure of the curriculum; admission requirements and registration procedures; examinations, certification and degrees; financial arrangements and fees. This operation is more complex, but it results in a high added value for the universities concerned as new programmes are created with complementary expertise on which mobility is established.

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7 See: the Erasmus+ Programme Guide, p.88
From 2008, *Strategic Partnerships* supported by the European Commission stimulated all kinds of innovative collaboration and mobility, short term and long term, face to face and online, bilateral or multilateral. They were a place for innovation in education and mobility, including blended and virtual mobility.

In 2019, the European Commission launched the *European University initiative*, creating alliances between universities and boosting curriculum collaborations and mobility by combining the full potential of physical, blended and online approaches. This is an important new milestone as these alliances will experiment with all sorts of collaboration and mobility, be it face to face/physical, blended or online. This will lead to structural and hence sustainable co-operations across the alliance, which aims at improving its position in the world of universities by combining distributed capacities and resources from each of the partners. It will change the institutional culture of universities and make European universities more attractive for European as well as for third country students.

It is expected that by the organisation of European University networks, the eU.University hub and other actions of Erasmus+, all types of mobility will grow and reinforce each other.

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**European developments in mobility**

- **Erasmus Exchange Mobility, incl. Intensive Programmes**
- **Networked programmes: mobility windows**
- **Erasmus Mundus Joint Degrees, embedded mobility of staff and students**
- **Erasmus+ Strategic Partnerships, Knowledge Alliances, Capacity Building**
- **European Universities initiative**

*Fig.1: Trends in mobility in European higher education*

**Core goal: creating an international academic experience in a framework of collaboration**

The core goal of any mobility is providing an *international academic experience* for students. As pointed out in the Erasmus+ programme, this international experience is organised in the framework of a collaboration between two or more universities. Such collaboration is defined in an institutional agreement between two universities (e.g. in Erasmus exchange) or within a network or consortium (networked and joint learning activities or curricula).
A learning agreement guarantees the rights of the student when taking credits abroad. It is based on broader institutional bilateral or network/consortium agreements.

As is stated in the Erasmus+ Programme Guide, mobility should always be related to a formal course or curriculum. “Student mobility can be in any subject area/academic discipline. To ensure high-quality mobility activities with maximum impact on the students, the mobility activity has to be compatible with the student’s degree-related learning and personal development needs. The study period abroad must be part of the student’s study programme to complete a degree at a short cycle, first cycle (Bachelor or equivalent), second cycle (Master or equivalent) and third or doctoral cycle”.

In many universities, mobility is also organized as elective courses or as an honours programme in such framework. This is to be reflected in the Diploma Supplement.

_In this report, we deal with mobility in a formal education context only, i.e. related to formal courses and curricula._

**Three perspectives to mobility**

Taking into account the viewpoint of main stakeholders, three perspectives are important in organising mobility:

1. **From a university perspective**, mobility takes place when two or more universities organize and recognize the study periods followed by their students in an exchange program or in a networked/joint program. Institutional policies and strategies entail such collaborations and mobility. Collaboration and mobility agreements create the organizational framework. Universities enhance their international profile and strengthen their curricula.

2. **From a student perspective**, students follow a learning activity, a course or part of a curriculum in another university in the framework of a bilateral or a network/consortium agreement between universities. Individual study plans (ISPs) summarize successive mobility periods within the curriculum or course. Students benefit from a rich international academic experience.

3. **From a teaching staff perspective**, staff is organising a learning activity or a course in the framework of a bilateral or a network/consortium agreement between universities. By doing so, new educational and mobility formats are created, based on international course and curriculum design. Teaching combine international collaboration in education, research and innovation and live their ambitions.

**Innovative developments in higher education and mobility**

Within the European landscape, European universities increasingly use innovative ICT-enhanced modes of teaching and learning. Mainstream education is evolving from traditional face-to-face to new forms of blended education. Continuous education will be offered mainly on line because of the flexibility required. Open education/MOOCs are completely online in order to reach a maximum scalability.

Increasingly, universities will make use of the full opportunity space between fully face to face and fully online learning.

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8 Erasmus+ Programme Guide, p. 88
9 Buitendijk, S.E. (2019). The goals of learning in higher education. EUA – Learning and teaching Forum, Warsaw
Although these trends are all rapidly increasing, there are large differences between and within countries and institutions, as is demonstrated in recent studies\textsuperscript{10}.

International collaboration and mobility come along with this trend, naturally driven by this changing landscape:

- Blended and online courses are gradually developed in all study domains, which offer a high-quality learning experience including online courses, virtual labs, simulations, gaming and other innovative educational formats. Many of those are available to teaching staff and students as open educational resources. Blended and online mobility is building on these new types of educational formats on which new mobility formats are created as well;
- Online learning management systems create a “natural” basis for an amplification of internationalisation, sharing courses/content and making teaching staff and students virtually mobile. As universities get more connected and more networked, new mobility paths become natural as well;
- Internationalisation can benefit from specific features of blended and online education, notably their potential of borderless accessibility, wide scalability and educational potential, i.e. by an intensive interactivity with peers and staff. This is already demonstrated by MOOCs. As result, online mobility can be organised worldwide and for all, while reaching high quality solutions and high impact.
- Young generations are receptive for international learning as they grow up with the internet and increasingly communicate across borders, e.g. in games. At the demand side, online mobility will grow because the demand side will grow in the mainstream as well as in continuous education.

As a result, a variety of innovative mobility schemes are being developed, changing the face of international education and increasing its impact.


4. Types of mobility

As education can be organized in face to face, blended and online modes, international collaboration and mobility can also be physical, blended or completely online:\(^{11}\):

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<tbody>
<tr>
<td>1.</td>
<td>In <strong>physical mobility</strong>, the international learning experience is accompanied with an immersion in another university and country, contributing to personal development, language learning and intercultural competences, living in a different social and cultural context. This combination between an academic experience and an immersion makes physical mobility attractive for students and highly valued by teaching staff, although a minority of students is benefiting from it.</td>
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<tr>
<td>2.</td>
<td>In <strong>online/virtual mobility</strong>, the international learning experience is progressing along online courses and collaborative learning activities, also resulting in intercultural competences and international online communication skills:(^{12}). If an immersion in another culture or language is desirable, students better go for physical mobility. In this sense, virtual mobility doesn’t replace physical mobility. As no stay abroad is required and learning environments/virtual classrooms become technically sophisticated for small and large groups, all students can benefit from virtual mobility.</td>
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<tr>
<td>3.</td>
<td><strong>Blended mobility</strong> is a deliberate combination of both physical and online mobility, based on educational design. This can go in two directions: a predominant physical mobility course, supported by online mobility, or a predominant online course supported by physical mobility (e.g. at the start or the end of a one-year online project or seminar). In this case, the advantages of a (short or long) immersion are combined with the advantages of a flexible implementation of mobility, capturing both the benefits of physical and virtual mobility.</td>
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Mobility formats

Based on these three types of mobility, specific mobility formats can be created based on additional parameters. Mobility can be short term, long term and intermittent; synchronous and asynchronous; one-campus or multi-campus.

All mobility can be short term or long term, although virtual mobility can reach a smaller granularity, notably more short-term or intermittent, e.g. in the case of virtual exchange with MOOCs, a joint virtual seminar, think tank, lecture series, or project. In the Erasmus+ context, short term means less than 3 months while long terms means 3 months to one year.

In online and blended mobility schemes, *asynchronous* and *synchronous* communication channels can be used.

Asynchronous communication through connected learning environments is important when flexibility is required, e.g. as time zones and course schedules differ. Also, the educational design can require more asynchronous activities, e.g. when students perform independent learning tasks or when learning activities require a variety in workload.

Synchronous communication can only be organized for a specific learning activity when universities agree to be on air at the same moments in a virtual classroom. They are probably more appropriate for staff to motivate, stimulate and activate students or to explain roadmaps to learn complex issues.

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See also: https://www.distancelearningportal.com/search/#q=kw-distance%20learning|mh-blended,online

\(^{12}\) See: https://www.openvirtualmobility.eu
The balance between synchronous and asynchronous learning is to be found in the course design, taking into account advantages and limitations of both.

Physical mobility involves only two universities, except in activities as intensive programmes, on-campus summer schools or international seminars. Virtual mobility can be organised between more than two universities in a multi-campus scheme and it can be flexibly organized by finding the right balance between synchronous or asynchronous modes of teaching and learning.

Based on these characteristics, a variety of international educational and mobility formats/ pedagogies are emerging. These formats have to be designed by teaching staff and curriculum teams (see further).

Also, students can successively participate in physical, blended and online mobility according to mobility paths designed in courses and curricula in agreement or in collaboration with partner universities.

A variety of international education and mobility formats

![Diagram of international education and mobility formats]

Fig. 2: Types of mobility and parameters for the development of international education and mobility formats
5. Mobility and the course/curriculum

All mobility is related to a course or curriculum, whether it is physical, blended or online.

It can be organized as:
- Embedded mobility within a course
- Exchange mobility for individual students (virtual Erasmus mobility)
- Networked mobility in networked curricula and courses with mobility windows
- Integrated mobility in joint curricula

Each is awarded with credits, degrees or another credential (especially in the case of continuous education/continuous professional development or open education) and are recognized by the home university.

Mobility and the curriculum

- Embedded mobility within a course
- Exchange mobility for individual students (virtual Erasmus mobility)
- Networked mobility in networked curricula and courses with mobility windows
- Integrated mobility in joint curricula

EADTU, Virtual Mobility Report

Fig.3: Mobility as related to international courses and curricula

In the following pages (pp. 17-28) examples of different these four education and mobility formats are introduced. More information concerning these examples is given in annex 1.

6. Embedded mobility within a course

Mobility can be embedded within a course through learning activities such as summer or winter schools, intensive programmes (physical mobility) or international virtual seminars, think tanks, projects (blended or virtual mobility). These collaborative learning activities are jointly designed by the partnership. Mobility is embedded as it is part of these activities. Interactions between students as well as with staff are a main characteristic in this type of mobility.

This mobility is awarded with a credit or another credential which is to be mentioned in the course description and subsequently on the diploma supplement.

In some cases, these learning activities are developed as an elective in a curriculum, e.g. in an honours programme.

Blended and online mobility schemes of this type are frequently organized in the framework of strategic partnerships and other parts of the Erasmus+ programme with a limited number of universities, but universities take such initiatives also outside of any European programme as an extension of their research collaboration.

<table>
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<tr>
<th>The European Virtual Seminar for Sustainable Development</th>
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<tr>
<td><strong>Tags:</strong> Long term virtual/online seminar; synchronous and asynchronous; multi-campus; multidisciplinary groups; virtual collaborative learning; interactions between students and teachers and between students; authentic scientific and societal problems.</td>
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<tr>
<td>✓ The aim of the EVS is to foster an international, multidisciplinary dialogue on sustainable development among students from all over Europe by using modern ICT and the internet</td>
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<td>✓ Time- and place-independent</td>
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<td>✓ A new method, consisting of the following components:</td>
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<td>- A learning community of students (and staff) of different nationalities and from different cultural and disciplinary backgrounds</td>
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<tr>
<td>- A learning process that supports collaboration and a multidisciplinary dialogue on sustainable development between geographically distributed students</td>
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<tr>
<td>- A learning content that consists of authentic, current scientific or societal problems</td>
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<tr>
<td>- A learning technology based on modern ICT and the internet that facilitates collaboration, communication and interaction between the students and their teacher, and (even more importantly) between the students themselves</td>
</tr>
<tr>
<td>✓ The learning process in the EVS differs greatly from that in mainstream education. There are no lectures in an EVS, the students have to work in international, multidisciplinary groups, the group members cannot organise face-to-face meetings, and all collaboration and social processes depend on communication using modern ICT. Moreover, the learning process is spread over a relatively long period (i.e. 16 weeks) so as to create the best possible conditions for virtual collaborative learning and to allow the students to participate in the EVS alongside their regular study programmes.</td>
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Partners in 2017-2018: Open University of the Netherlands (EVS coordinator), Carl von Ossietzky Universität Oldenburg, Charles University in Prague, FernUniversität Hagen, Karl-Franzens Universität
Graz, Universidade Aberta, University of Antwerp, University of Bucharest, University of Maribor, University of the Aegea.

See Annex 1: 1.1

<table>
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<th>Think Tanks</th>
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<td><strong>Tags:</strong> embedded mobility within a course; blended; long term; multi-campus; synchronous, asynchronous, intermittent; honours programme, bachelor level; interactions both staff and students; blended (face to face sessions at the start and at the end of the think tank); certified in portfolio.</td>
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✓ The KU Leuven – Stellenbosch University Think Tank is an extra-curricular interuniversity honours programme. Each year, both KU Leuven and Stellenbosch University select a maximum of 15 students out of all applications. The total group of 30 students is working together over the course of 10 months (from February to November) and will develop their own research project on a central theme. The participants are assisted by an interdisciplinary academic team of coaches, led by an academic coordinator. At the end of the project, the results and findings are presented to the public during a joint event.

✓ The workload is 3-4 hrs a week.

✓ The collaboration takes place via the available online platforms and tools. In addition, both groups of students will meet each other twice a year: once during the spring semester for a short focus week and once during the fall semester for an intense workshop week, culminating in a concluding event that will give them the opportunity to present their findings to the public.

✓ Selected students who have successfully completed the full honours programme will be awarded a certificate. In addition, the programme is also included in the ‘Extra-Curricular I-Portfolio’ activities.

✓ Subjects were: Making the City of the Future! (2015); Brave New World? Merging technology and society (2016); Art & Science: An Enduring Relationship (2017); The Voice of the People: Izwi labantu – Stem van het volk – Vox Populi – Die stem van die mensen; the Future of Health Care (2019).

See annex 1: 1.2

<table>
<thead>
<tr>
<th>Studying in a virtual mobility context in the domain of Educational Science</th>
</tr>
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<tbody>
<tr>
<td>✓ An international online master level course ‘Instructional Design - Creating an educational media product’, was developed and implemented by teams from the University of Jyväskylä, Finland, the Open University of the Netherlands and FernUniversität in Hagen, Germany (2018/2019). Students of three different study programmes in Educational Science collaboratively developed a mobile learning scenario based on theories and models of educational design and realized this design in a mobile learning application. In small international groups of maximum five students, an initial idea on an educational media product was conceived and afterwards, the theoretical foundation, design, implementation and evaluation were developed in iterative cycles. The course ended with a final online presentation, evaluating the results. The course combined development of professional skills at university level with international project management and international collaboration competences.</td>
</tr>
</tbody>
</table>

✓ The idea was to offer a rich international learning experience for adult students, who may be less mobile due to their life situation, e.g. who combine studies and work and family duties (Vogel et al., 2018). Thus, a high degree of heterogeneity was given, even though an obvious commonality was the educational background of the study programmes.
The task was to plan, implement and evaluate an authentic educational media project, based on mobile learning design. For this purpose, an open source software application for mobile learning design, called ARLearn, was provided by the Open University of the Netherlands. Students were expected to work collaboratively in mixed groups in an online learning environment (Moodle) that was accessible for all participants, provided by FernUniversität in Hagen. Course learning objectives included both domain specific and generic skills and competences, such as project management and online international collaboration.

See annex 1:1.3

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**The Winter School “International and Comparative Studies in Adult Education and Lifelong Learning” (COMPALL)**

**Tags:** blended winter school; short term physical mobility supported by preparatory online learning activities; master and PhD level; synchronous and asynchronous learning; multi-campus

The Winter School “International and comparative studies in adult education and lifelong learning” at the Julius- Maximilian-University Würzburg is part of a blended-learning activity with a preparatory and a subsequent online phase.

The structure is as follows:

- Joint online sessions to introduce master’s and PhD students to the analytical model (online tutorial)
- Supplementary tutorials at all partner universities (face-to-face tutorial)
- Online supervision for understanding comparative methodology and thus preparing individual transnational essays
- Joint intensive phase at the Würzburg campus (intensive programmes i.e., the winter school (physical mobility)
- Preparation of a comparative research paper (supervised by editors) on topics in comparative adult and lifelong learning and from the viewpoint of the participants’ home countries (comparative analysis) (online)
- LinkedIn professional networks to support the long-term international network among participants (master’s and doctoral students, professors, international experts) and enable them to communicate beyond the intensive phase (professional network)

During the first week, there are two separate study pathways: one for MA and one for PhD students. This takes place via an online platform, all participants will study a range of core literature concerning social policy and pedagogical models in order to achieve common background understanding. Moreover, they have to prepare a transnational essay, (i.e., a paper tailored to national characteristics) that will be presented during the second phase.

Partners are the University of Würzburg and universities from Germany, Hungary, Denmark, the US, India, Ireland, Italy, Portugal, Slovenia, The Deutscher Volkshochschulverband and the European Association for Adult Education.

See annex 1: 1.4
7. Exchange curricula and exchange mobility

In exchange curricula and exchange mobility (the “classical” Erasmus exchange programme), individual students choose a study abroad at a host university, according to an individual mobility arrangement (Erasmus Learning Agreement) for courses on which the host and home university agree. This is the most common mobility scheme in Europe, it is directly supported by Erasmus mobility programme. The EPICs project has designed such agreements and procedures for virtual/online exchange mobility.

EADTU has developed tools for virtual Erasmus exchange, reflecting the requirements of the standard Erasmus scheme. Essential elements in this scheme are:

- an institutional agreement
- a course catalogue, customized and restricted to the partners in this institutional agreement, with pre-assessed and recognized online courses or learning activities
- a student application form
- a learning agreement
- transcript of records

<table>
<thead>
<tr>
<th>The Virtual Exchange Scheme (based on MOOCs, SPOCs and online courses)</th>
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<tbody>
<tr>
<td><strong>Tags:</strong> MOOCs-based exchange mobility; online mobility; synchronous/asynchronous learning; multicampus; assessment and credits for MOOCs; European and world-wide partnerships (through Edx, Coursera);</td>
</tr>
</tbody>
</table>

✓ The Virtual Exchange Scheme between the universities mentioned below is based on MOOCs (Edx). Students take an online course at a top university and gain credits for their degree. They learn at their own pace and at a time and place that suits them, be it from their favorite spot on campus or even from their holiday destination. Inspiring lecturers from high-ranking international universities, from Australia to Switzerland and from Hong Kong our brought to their own campus. They engage with students from countries across the globe to broaden and enrich their knowledge and portfolio. Both synchronous and asynchronous learning is possible in MOOCs, which is an asset for international education.

✓ Only MOOCs which are part of the regular programme of a university are allowed. On completion of the online course and on successful final assessment (this can vary, from a written exam at the campus to a digital oral assessment with the lecturer), the student will receive credits for his grade list.

✓ Challenges are the differences in ambition level of universities to innovate in international collaboration, different workload and credit systems in the world, collaboration and scale in different leaning environments (own LMS, Edx, SPOC settings,…), and no show rates of students, especially when courses are electives or not part of a regular programme.

✓ Examples of MOOCs in this exchange scheme are: Solar Energy, Neural Dynamics, Anthropology of Current World Issues, Astrophysics, Introduction to Computing with java, English Grammar and Style.

✓ This Virtual Exchange initiative results from a collaboration between leading international universities. Active partners at the moment are: Delft University of Technology, École Polytechnique Fédérde de Lausanne, Leiden University, Rice University, the Australian National University, the University of Adelaide, Universidad Carlos III de Madrid, Université Catholique de Louvain, University of Queensland, Sorbonne Université, Wageningen University & Research, Hong Kong University of Science and Technology.

See annex 1: 2.1

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Coriolanus Online

**Tags:** Virtual mobility fine arts; telepresence technology; synchronous; multi-campus; long term online mobility

✓ Coriolanus Online (Tampere, Coventry) was the first part of the two-year Theatre project, which in 2017 continued with King Lear, another Shakespeare play. Student actors of both universities cooperate with the support of a “telepresence” technology, by which actual spaces are conjoined via technology. Coriolanus Online brought the students from Tampere in direct contact with a living Shakespeare tradition in Coventry, instead of flying in experts from Coventry to teach and play in Tampere.

✓ Telepresence may be defined as “live video that allows for human-sized interactions, while offering clear sound and visual fidelity to individuals in remote rooms” (Miller et al. 2015) and this project explores its potential for teaching and learning in the field of performing arts. In particular, the project facilitates international virtual mobility collaborations between theatre students at the University of Tampere (Finland) and Coventry University (UK), with a particular focus on acting in a foreign language.

✓ While providing students with opportunities to engage in intercultural collaborations and to develop valuable global attributes, the project promotes a more environmentally sustainable model, diminishing the need to move large groups of student actors across the globe for rehearsals, workshops and even performances.

✓ Initially taking the text of Shakespeare’s *Coriolanus* as a basis for study, in 2015-16 students of the two universities worked on a small section of the script (3:3) in both Finnish and English. An ‘Immersive Space’ was created in both locations through the re-purposing of videoconferencing technology and the use of large rear projection screens, high speed internet connections and unidirectional, hyper cardioid microphones. Moreover, a unified spatial design and a careful use of lighting gave the actors the illusion that they were occupying the same physical space.

✓ A second iteration of the project took place in February 2017, utilising the same group of students and culminated in a field trip to Tampere where both groups performed together live in Telakka Theatre and demonstrated the use of the technology to an invited audience of theatre practitioners and technologists. The work continued to examine Shakespeare’s texts as the students already have some experience in dealing with Shakespearean language and the complexities of blank verse. The text chosen for this second stage was *King Lear* and we explored both a large ‘public’ scene as well as more intimate sections from the text in order to examine how this pedagogy enables rehearsal work in these differing circumstances.

✓ The third iteration of the project was a collaboration between the team and the Theatre Academy at the University of the Arts, Helsinki and the University of Gothenburg, Sweden. On this occasion, the text chosen was Shakespeare’s *Twelfth Night* which offered the students the opportunity to explore the comic side of Shakespeare’s work, using a combination of large, intricate scenes as well as smaller ‘one on one’ segments.

See annex 1: 2.2

The Lived Experience of Climate Change

**Tags:** e-module development for mobility; online courses and mobility; asynchronous; master’s level; collaborative modules (staff mobility in courses teams); virtual learning space; open educational resources; flexible use of e-modules in multiple courses; master’s thesis package

✓ This interdisciplinary e-module development and virtual mobility project was related to the development of education and lifelong learning in relation to climate change. It was focusing
on the lived experiences of climate change -- how individuals, communities and organisations conceive and respond to its perceived local impacts (e.g. extreme weather, biodiversity changes). Through collaboration between nine institutions, innovative teaching modules and a virtual learning space were designed, making a major contribution to the United Nations decade on education for sustainable development.

✓ The educational level is postgraduate Masters. A key feature is that it complements existing and proposed Masters programmes in the area, rather than create a parallel programme. Consortium members are free to use or adapt the content (see below) within their own programmes, through their normal accreditation processes. The teaching modules can be used flexibly by students: as available educational resources without assessment or accreditation to enhance their studies or as conventional modules with assessment and accreditation.

✓ To achieve the project’s aims, a virtual learning space contains the educational resources and facilitates learning communities and virtual mobility across the institutions.

✓ Five postgraduate content deliverables are devised:

1. An introduction to climate change in the context of sustainable development (teaching module)
2. Comparing the experience of climate change in the global South and North (teaching module)
3. Interdisciplinary research methods for investigating the lived experience of climate change (teaching module)
4. A Masters dissertation package based on the virtual learning space
5. A virtual mobility package based on the virtual learning space

✓ The teaching modules are available as open educational resources for any university to use as it wishes.

Partners: The Open University (UK), Open University of the Netherlands, Fernuniversitat Hagen, KU Leuven, Universidade Aberta

Annex 1: 2.3

**Edelnet – Schools of Law**

*Tags: blended active learning and mobility; three cycles in law; interdisciplinary and intercultural communication skills; online modules and virtual mobility; summer and winter schools as face to face components;*

✓ The EDELNet (European Distance Education in Law Network) project is planned to be the first building block in the implementation of an ambitious scientific and pedagogic concept of Blended Active Learning and student oriented teaching facilitating a personal learning path with an emphasis on interdisciplinarity and intercultural communication skills as a basis for a better understanding of each other’s legal cultures and practices throughout Europe and beyond.

✓ In order to achieve these goals, the EDELNet project comprises the development and implementation of virtual and face-to-face teaching and training activities and courseware in key methodological and substantive areas of the law, including language competences, intercultural communication skills and interdisciplinary methods of knowledge production applied to legal practice and scholarship.
The project is conceived as blended, student-oriented learning with virtual mobility at three levels: bachelor, master and doctoral. Face to face components are mainly Summer and Winter Schools. Other components are online.

Partners are: FernUniversität in Hagen, the Universidad Nacional de Educación a Distancia (UNED) and the Open Universiteit Nederland (OUNL).

See Annex 1: 2.4

Global Health Education (TropEd)

The Network for Education in International Health (TropEd) is an international network for international/global health with institutions from Europe, Africa, Asia, Australia and Latin America. TropEd provides postgraduate opportunities for education and training contributing to sustainable development. It focuses on improving the management of health services for disadvantaged populations. The innovative approach is based on mobility of people, the exchange of experiences in different disciplines and the establishment of a common standard in education and training.

Each institution was responsible for producing one online module for the programme (5 ECTS) each year over the 3-year project period, 9 online modules in total. In addition, each institution was responsible for enrolling 8 students in the programme, for a total of 24 students.

Moving from face-to-face classroom teaching to online, learning management system-based teaching is challenging and time-consuming. However, the overall consensus is that this kind of virtual teaching/learning have many advantages for students and teachers alike. A Handbook is developed to help others to create online courses.

The project involved researchers and specialists in their respective fields from the Centre for International Health Bergen, KIT Royal Tropical Institute, Amsterdam, and Queen Margaret University Edinburgh.

See annex 1: 2.5
8. Networked curricula and mobility windows

In networked curricula and mobility windows, partners in a network of programmes in a certain study domain organize each a “mobility window” which can be followed by students of all partners in the network. A mobility window consists of specialized or complementary courses which are not always organized in the other universities of the partnership. As a consequence, the curricula of all universities in the partnership are enlarged and enriched. Window mobility can be organized in physical, blended or online mode, depending from the organizing university. Double degrees can be awarded when a substantial mobility window at the host university is followed.

Blended and online networked mobility can be found in strategic partnerships, supported by the Erasmus programme.

In the case of networked programmes\(^\text{15}\), the institutional agreement and the learning agreement concerns the online mobility window / course package to be followed at universities within the network.

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**EUTEMPE-project: Blended Training Modules for Medical Physics Experts**

**Tags:** EFQ 8 level training for medical physics, radiology; blended networked postgraduate curriculum with mobility windows; staff training course design.

- The main objective of the EUTEMPE-RX project European Training and Education for Medical Physics Experts in Radiology (FP7, 2013-2016) was to provide an education and training scheme that allows a medical physicist in Radiology to reach EQF level 8. The learners that were targeted by the project are medical physicists with typically 2 years of practical experience in radiology in hospitals, medical device companies or nuclear authorities, PhD students in radiology physics and biomedical engineers working in radiology. The European training scheme had to address physicists from all over Europe and especially also from the New Member States and even beyond.

- In the end, the network has developed 12 modules at EQF level 8. The module leaders use a variety of modern educational tools and a blended learning scheme: each course aimed at 80 hours of active learning by the participants, divided between a preparation phase at home via online learning and onsite training in the institution of the module leader. The major part of the theoretical knowledge is communicated upfront by means of an e-learning platform, guiding at least 40h of learning. The online phase is then followed by an interactive and practical face to face phase in the institution of the module leaders.

- To familiarize the teachers with techniques of online teaching, e-learning, interacting with small groups and EQF8 assessment methods, educational workshops were organized. All modules were run as planned, with the quality survey among participants confirming the high level of the courses, the expertise of the teachers and the appropriateness of the e-learning preparation phase. The teachers reported that a very motivated group of medical physicists participated in their modules. The consortium partners have decided that they will repeat their course modules every two years.

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**NordMed Computational Biomedicine**

**Tags:** online and blended curricula and mobility; multi-campus; synchronous and asynchronous education; long term mobility; master level and continuous professional development, postgraduate

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✓ NordBioMed is a collaborative network between the universities of Bergen, Southern Denmark, Eastern Finland, Turku and Karolinska Institutet. It supports both student and teacher mobility, organises intensive special courses and it develops a virtual teaching and information platform, NordBioMed Moodle.

✓ OERCompBiomed delivers five intellectual outputs in the form of three OERs/courses (Biomedical Ethics, Translational Digital Pathology and Introduction to Computational Biomedicine and Machine Learning), and in the form of an intensive course (Summer School in Computational Biomedicine) with blended learning and virtual and physical mobility between the partner institutions. Learning analytics evaluates the design, implementations and evaluation of these activities.

✓ Using OERs and web-based courses changes teaching, learning and assessment.

✓ The virtual summer school supports both virtual and physical mobility between the partner institutions. A blended learning environment is created for an array of learning activities as well as blended group work (face to face and virtual). It gives the students the opportunity to apply and combine knowledge they acquired online and in their respective home universities.

✓ The courses will attract different groups of students and professionals both regionally and on a global scale. Within the participating academic institutions alone, the OERs are relevant for 250-300 students each year, and will be mandatory for subgroups of these students.

✓ From a European and global perspective, 2000 participants annually are envisaged. In addition to this, the OERs will attract professionals from various health care disciplines and from the pharmaceutical and biotech industry.

See Annex 1: 3.2

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**UNIGE-inZone Courses Humanitarian Aid**

*Tags: blended/online curriculum collaboration, virtual mobility; development collaboration; bachelor level*

✓ UNIGE-inZone develops cooperation agreements for specific learning pathways with partner institutions in refugee-hosting countries (e.g. the BA in International Relations with Kenyatta University in Kenya which integrates a package of blended courses with research components provided by the University of Geneva-InZone). Refugee students do not pay for the UNIGE-InZone package of courses but need to pay regular tuition at Kenyatta University for the balance of the BA course of studies - tuition is donor funded for a specific number of students.

✓ UNIGE-InZone developed the details of the BA degree with KU faculty, then designed the learning pathway in terms of coursework and joint research through establishing equivalences with KU’s regular BA degree, and then worked with KU’s Digital School to start the implementation in the Kakuma refugee camp.

See annex 1: 3.3
9. Joint curricula and integrated mobility

A joint curriculum with integrated mobility flows is designed as one single, common program owned by a consortium of universities. Mobility flows for all students are integrated in the design of the curriculum. Individual study programmes (ISPs) are following these mobility flows with some differentiations. In these distributed multi-partner curricula, mobility flows can be organized in a physical, blended or online mode. Joint degrees are delivered.

In joint programmes, online mobility tracks are inherent to the structure of the programme and the pathway to be followed by the student. In joint programmes, arrangements are made between the universities regarding the individual study programme (ISP) for each student, the services to the student on the successive locations, the examinations, the credits and the joint diploma and the registration and the participation fees (main registration, subsidiary registrations).16

<table>
<thead>
<tr>
<th>The Joint Master’s Programme in Comparative Social Policy and Welfare</th>
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</thead>
<tbody>
<tr>
<td><strong>Tags:</strong> joint master program; online supported by face to face intensive programmes;</td>
</tr>
<tr>
<td>✓ The purpose of this programme is to enhance students’ career prospects as highly qualified experts in national, European or international organizations. The students will be able to continue their studies in PhD level.</td>
</tr>
<tr>
<td>✓ The programme offers basic academic training in the field of welfare management/social policy development. Students have an opportunity to increase competence and understanding of methodological issues and sociological research methods.</td>
</tr>
<tr>
<td>✓ The curriculum for the Master’s Programme “Comparative Social Policy and Welfare” has been designed jointly by three partner-universities: Mykolas Romeris University (Lithuania), University of Tampere (Finland) and the Johannes Kepler Universität Linz (Austria).</td>
</tr>
<tr>
<td>✓ Teaching and learning methods are intensive programmes (2 weeks IP’s) in all partner universities alternately and distance learning (the online learning environment “Moodle”).</td>
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<tr>
<td>✓ Students complete their studies with a Joint Master degree.</td>
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<tr>
<th>The Efese project</th>
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<tr>
<td>Capitalizing on the experience with the Master in Social Security (KU Leuven) a broader European project has been implemented. The rationale behind the EFESE project is that Social Security in Europe is more important than ever. Its relevance was clear during the recent economic crisis in Europe where social protection systems helped to limit the effects of the crisis, especially for the hardest-hit. Social security itself is above all a truly European field of expertise, traditionally labeled as the European social model and therefore this more innovative exchange of education on this topic is timely and necessary.</td>
</tr>
<tr>
<td>The objectives of the project are:</td>
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<tr>
<td>✓ Developing a joint course format for virtual exchange</td>
</tr>
<tr>
<td>The coordination of social security system is a founding pillar of the EU internal market while the European social model is closely linked to European integration. Despite its importance, social security remains a highly national and discipline-specific area (law, economics and social policy) whose study is therefore fragmented. This project created a format that the partners use to virtually exchange their courses. This represents a new approach to education and opens many new possibilities for students currently not benefiting from exchange. The format consists of a set of technical standards which allows the integration of courses in the existing learning platforms at the different participating organizations (e.g. Blackboard or Moodle) and</td>
</tr>
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</table>

16 Good practices can be found in the Erasmus Mundus master and doctorate programs
pedagogic/didactic standards that ensure a student-centered approach for virtual learning. In seven blended courses on European Social Security were developed.

 ✓ **Creation of joint curriculum**

The idea is to join forces between top European universities who provide education in the field of social security and to synthesize fragmented approaches, paving the way for a common European curriculum. To attain the objective of a truly European comprehensive curriculum on social security, both teachers and students will be virtually mobile. The project carries out a feasibility study on a fully recognized and accredited Master in European social security by the partners. The selection of the courses covers in a complementary manner the various disciplines and expertise within social security. The project also brings innovation in teaching across the partner institutions as the format will have a strong pedagogic and didactic component. Moreover, the virtual exchange is combined with two residential learning moments. The “Young Researcher School” (summer school) brings together interested participants around their own research proposals and research methodology, thereby also exploring the potential of “blended” education (i.e. the link between on-line and residential learning).

Partners are: KU Leuven, Universiteit Kopenhagen, Universiteit Ljubljana en CECL Athene and furthermore Masaryck University Brno, Mykolas Romeris University Vilnius, Wirtschaftsuniversität Wien, Université de Luxembourg, University of the Peloponnese, Rijksuniversiteit Groningen, University of Zagreb, University of Gothenburg, Universidad Autónoma de Madrid, Observatoire Social Européen en en the European Institute of Social Security.

See Annex 1: 4.2

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**Joint European Master’s programme in Chamber Music (ECMA)**

*Tags: Blended and online joint master and virtual mobility; long term mobility; asynchronous, synchronous mobility; master level;*

 ✓ This project aims at educating a new generation of chamber musicians within an innovative international learning environment based on a student-centred and research-led curriculum, which includes direct feedback from professional partners.

 ✓ This is an Erasmus+ Strategic Partnership European Chamber Music Academy (ECMA, a network of European music universities, conservatoires and festivals in the field of chamber music). ECMA is dedicated to promoting young aspiring chamber music ensembles of the highest quality.

 ✓ Higher music education institutions have been slow in adapting their curricula to new pedagogies and technologies. The project sees chamber music as a tool to modernise higher education in classical music through blended mobility, e.g.:

- Innovative teaching and learning methodologies and new approaches to assessment for both online and classroom teaching and learning in terms of curriculum, mobility and recognition
- Two intensive study programmes a year where students and teachers meet around specific themes
- Joint staff training events for teachers to develop new approaches to assessment
- A joint European Master’s programme in chamber music. The expertise available in the partner institutions is pooled into a programme of the highest educational and artistic quality, and provide future sustainability to its activities through the recognition by national and European quality assurance frameworks and a more structured future use of ERASMUS+ funding for joint Master’s programmes
- Through this cross-border cooperation, ECMA can ensure that various national musical and pedagogical traditions can positively influence each other in their development
✓ These activities will lead to improved curricula in the partner institutions that are informed by the latest teaching and learning approaches and the expertise from professional partners and are therefore better tailored to the current reality of the music profession. Teaching staff will be updated or re-trained with information on innovative teaching and learning methods, leading to higher quality teaching.

✓ The primary partner is The Norwegian Academy of Music. The consortium consists of a total of eight partners throughout Europe.

See Annex 1: 4.3
10. Related mobility initiatives

**Erasmus+ Virtual Exchange projects (youth)**

In 2018, the European Commission launched Erasmus+ Virtual Exchange\(^{17}\), a pilot project which is aimed at enabling youth in Europe and the Southern Mediterranean to engage in meaningful intercultural experiences online, as part of their formal or non-formal education. It defines Virtual Exchange as “technology-enabled people-to-people dialogues sustained over a period of time” for individuals and groups which are geographically separated and moderated by trained facilitators and/or educators using structured activities. The project targets both academia (professors, administrators, students) and youth (youth workers, young people).

Exchange in this context is different from exchange as in the exchange mobility scheme in the Erasmus programme. Here, exchange is not necessarily related to a formal course or curriculum at partner universities, although some of the Interactive Open Online Courses (IOOCs) are networked cooperations between universities (see below).

Also, in the case of this pilot action for the Youth programme, exchange rather means exchange of ideas and values, while in the Erasmus KA1 context, exchange refers to the exchange of students.

Erasmus+ Virtual Exchange engages in two primary activities: training and exchanges.

**Training:**
- **Facilitator Training:** The majority of Erasmus+ Virtual Exchanges involve synchronous video sessions moderated by trained facilitators. Training covers the knowledge necessary to guide dialogue and solve conflicts in intercultural contexts, including observing for and addressing power dynamics; listening actively; asking critical thinking questions; encouraging students to share personal stories; preventing false dialogue; and understanding region-specific political and cultural sensitivities.
- **Training for university educators and youth workers to develop their own Erasmus+ Virtual Exchanges:** Basic Training provides an introduction to and experience of virtual exchange whereas Advanced Training guides participants through the various steps and various pedagogical and technological considerations they need to design and implement a successful virtual exchange which will meet the specific needs and interests of their locally identified target groups and international partners.
- **Debate team leader:** a 6-hour training aims at equipping the Debate Leaders with the necessary tools to train their local teams in debate skills and allow them to play a leading role in moderating and facilitating an online Debate Exchange.

**Exchanges:**
- **Online Facilitated Dialogue:** programmes ranging from 4 to 8 weeks with weekly online facilitated synchronous sessions that create opportunities for young people to connect together and to discuss current issues that matter to them;
- **Interactive Open Online Courses:** topical programmes (e.g. Countering Hate Speech, Refugees in Europe, Gender In/Equality in Media and Journalism, Culture and Politics in Europe, Newcomers and Nationalism) ranging from 4 to 12 weeks that give young people engaged in traditional MOOCs the opportunity to learn both with and from their peers across cultural contexts and national boundaries through regular interaction in facilitated online meetings and collaborative assignments;

\(^{17}\) See: Forward-Looking Cooperation under Erasmus+ Key Action 3: Support for policy reform, Priority 5 – Achieving the aims of the renewed EU strategy for higher education (EACEA 41/2016).
- Debate Exchanges: led by youth who have been trained as Debate team leaders, this activity brings together young people to engage in parliamentary style debates in intercultural teams in a virtual environment.
- Transnational Erasmus+ Virtual Exchange Projects: small-scale, project-based Virtual Exchanges jointly developed by youth workers and/or university educators from two or more different countries who have completed the Training.

Learning activities:
In all cases, learning activities are mainly about:
- Skills: active listening, critical thinking, asking good questions, open-mindedness
- Different cultures: religion, traditional food, marriage, major festivals in each country, values
- Global issues: poverty, women rights, educational system, the negative effect of social media, immigration

Recognition:
Recognition for successful completion of all trainings and exchanges is offered through open badges, the value of which depends on the endorsement by universities and employers. Individual institutions determine the number of ECTS students receive for participation in the various activities, ranging from 3 ECTS to 12 ECTS.

<table>
<thead>
<tr>
<th>The Evolve project</th>
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<tbody>
<tr>
<td>✓ EVOLVE (Evidence-Validated Online Learning through Virtual Exchange) is a KA3 project led by the University of Groningen which aims to mainstream Virtual Exchange (VE) as an innovative form of collaborative international learning across disciplines in higher education institutions in Europe and beyond.</td>
</tr>
<tr>
<td>✓ This project is part of the Erasmus+ Virtual Exchange action, which defines virtual exchange as a sustained, technology-enabled, people-to-people education programmes or activities in which constructive communication and interaction takes place between individuals or groups who are geographically separated and/or from different cultural backgrounds, with the support of educators or facilitators. For a full description, see What is Virtual Exchange.</td>
</tr>
<tr>
<td>✓ The project aims to support higher education institutions in implementing virtual exchange as part of their internationalization at home offerings. It will do this by providing an evidence-base to support implementation,</td>
</tr>
<tr>
<td>✓ The project offers training and support in the design and implementation of this model of virtual exchange, which is in line with Erasmus+ Virtual Exchange</td>
</tr>
<tr>
<td>✓ The two networks Coimbra Group and S Group are partners in this project as they see it as supporting their aims of international collaboration in education.</td>
</tr>
<tr>
<td>✓ Two organizations which offer virtual exchange programmes, Soliya and Sharing Perspectives Foundation are also partners.</td>
</tr>
<tr>
<td>✓ Core in the educational concept of virtual international education is that these courses and learning activities:</td>
</tr>
<tr>
<td>✓ EVOLVE (Evidence-Validated Online Learning through Virtual Exchange) is a KA3 project led by the University of Groningen which aims to mainstream Virtual Exchange (VE) as an innovative form of collaborative international learning across disciplines in Higher Education (HE) institutions in Europe and beyond.</td>
</tr>
<tr>
<td>✓ It has defined virtual exchange as a practice, supported by research, that consists of sustained, technology-enabled, people-to-people education programmes or activities in which constructive communication and interaction takes place between individuals or groups who are geographically separated and/or from different cultural backgrounds, with the support of educators or facilitators. For a full description, see What is Virtual Exchange.</td>
</tr>
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</table>
Core in the educational concept of virtual international education is that these courses and learning activities:
- Offer experiential and collaborative student learning
- Enhance learning by having students engaged and learning course content through their own and the other’s unique cultural lenses
- Develop transversal skills such as:
  - intercultural awareness
  - online intercultural communicative competence
  - digital literacies
  - working effectively in virtual teams
- Offer opportunities to build diverse personal relationships
- Better prepare students for work and civil engagement in a global context
- Encourage students who never thought of studying abroad to do so

Open Virtual mobility

Recognition of open credentials
The Open Virtual Mobility project addresses mainly mobility based on non-formal and informal education, notably the recognition of such courses in formal education through open credentials. One example is the recognition of open badges for MOOCs and OER in mobility schemes, eventually via procedures of prior learning.

This is a new area of international education which needs further exploration.

Virtual mobility skills
Part of this project is a Group Concept Mapping study about skills developed by (open) virtual mobility as perceived by teachers and mobility experts. This has led to several clusters and descriptors of such skills, notably:

1. Intercultural skills and attitudes: gaining cultural knowledge; understanding cultural perspectives; enhancing own cultural identity; enhancing and demonstrating cultural understanding; applying intercultural awareness in culturally challenging circumstances
2. Networked learning skills: learning to work and cooperate in an international setting with the use of ICT and social platforms; learning about dealing with complex situations; learning about dealing with ambiguity;
3. Active self-regulated learner skills: being able to self-regulate learning process; being able to self-reflection on learning experiences; demonstrating ownership and self-discipline in learning;
4. Media and digital literature: being proficient in using online learning technologies; being proficient in assessing quality in courses and resources found online; being digitally literate; being proficient in using digital platforms
5. Autonomy-driven learning: demonstrating self-directedness in decision-making on own learning; demonstrating independent learning
6. Interactive and collaborative learning in authentic international environments: enhancing teamwork skills; collaborating with peers from different discipline; collaborating with peers

within the context of an international learning experience; interacting with authentic international resources in a foreign language;

7. **Open-mindedness**: being open-minded and tolerant; demonstrating self-confidence in interaction with peers and teaching staff; showing willingness to improve proficiency in foreign languages.

The complete Open Virtual Mobility Skills Framework is attached in Annex 2.
11. International educational design and mobility

International education and mobility formats are to be designed according to principles of curriculum and course design. The quality of the international academic experience is depending from the quality of this design.

**International curriculum design**

Any part of exchange, networked and joint programmes can be organized in a *physical, blended or completely online*\(^{20}\).

In *virtual exchange mobility* or the classical Erasmus exchange scheme, individual students choose online courses in a host university. These courses are not changed, they are taken as they are. Host universities improve the accessibility of courses for international students, eventually by teaching in English. In the case of exchange mobility, the curriculum of the host university doesn’t change.

In *networked programmes*\(^{21}\), the partners in the network agree on eligible “mobility windows” for which they will host students from other universities in the partnership. They make sure that these mobility windows can be integrated in the respective programmes at the home universities and that mobility flows can be organized from these programmes. Therefore, partners have to agree on the profile and learning outcomes of each mobility window to be described in the network agreement. In the case of blended/online mobility, at least some parts of the mobility windows can be followed online to be defined in this agreement.

In *joint programmes*, the complete curriculum is jointly conceived by partner universities. The successive components of the program are distributed over the partnership and constitute one integrated programme, co-owned by all. Mobility flows with some differentiations/specialisations are pre-conceived accordingly and integrated in the programme. Students follow an individual study program (ISP) leading them to two or more universities. In the case of blended/online mobility, students can follow parts of the programme online. Curriculum development of joint programmes has also to consider application and admission requirements, modalities of the registration of students, services to students along their mobility paths, joint examination methods and quality assurance mechanisms\(^{22}\).

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See also: https://www.distancelearningportal.com/search/#q=kw-distance%20learning|mh-blended,online


\(^{22}\) Good practices can be found in the Erasmus Mundus master and doctorate programs
International course and curriculum design

Fig.4: Mobility and international course and curriculum design

International course design
Collaboration between partners and mobility within a course or within learning activities as virtual seminars, think tanks, projects takes into account dimensions or principles of (international) course design:

- **Distributing the development of teaching and learning activities** over different partner institutions and sequencing these activities in a joint design
- **Organising flexibility** to make activities accessible by all students, respecting different time zones and course schedules by tradeoff between asynchronous and synchronous activities;
- **Organising international learning communities** with international students and staff
- **Selecting modes of delivery and media**, depending from the objectives of a course and the accessibility of technologies
- **Integrating assessment and feedback mechanisms**, eventually supported by learning analytics, and including summative e-assessment or proctoring arrangements for examinations²³

Currently, a maturity model for blended and online education is developed, involving these dimensions²⁴. This can be a solid basis for international online or blended course design.

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²³ See: the TESLA project. [https://tesla-project.eu](https://tesla-project.eu)
²⁴ See: The EMBED project, funded by the European Commission, by KU Leuven, TU Delft, the University of Edinburgh, the University of Aarhus, the National Institute for Digital Education (City University, Dublin), and Tampk Tampere. Coordinated by EADTU. See: [https://embed.eadtu.eu](https://embed.eadtu.eu)
The final quality of international courses and curricula will be evaluated by the usual internal and external quality assurance mechanisms. EADTU has developed an instrument for benchmarking the quality of blended and online education\textsuperscript{25}. This can also be used in an international context for which it will be adapted by experts in internationalization.

**Patterns of good practice and innovative pedagogies**

A systematic application of these principles of course and curriculum design and development will lead to patterns of good practices and innovative formats in the field of international collaboration and mobility.

We are at the beginning of such new developments, made possible by ICT-based modes of teaching and learning.

Gradually, a thesaurus of patterns of good practice and innovative international pedagogies will emerge and be published in journals and repositories.

Examples of such innovative pedagogies are already included in annex 1.

It is expected that the European University and the eU.University hub initiatives of the European Commission will largely contribute to good practices and further research in the discipline of international curriculum and course design\textsuperscript{26}.

**Successive mobilities in a student’s career - Imaginable mobility scenarios**

Based on design, a student can participate in diversity of mobility formats during his study career. These successive physical and virtual mobility modes already emerge in strategic partnerships and will further increase in the European University networks.

It illustrates as well that mobility schemes don’t exclude, rather reinforce each other. As a result, 100% of the students can benefit from an international academic experience if physical and blended/online mobility schemes are combined during their study career.

The balance between physical mobility with immersion and blended/online mobility is a pedagogical one, to be decided upon by the partner universities.

\textsuperscript{25} Ubachs, G., Williams, K. & Rosewell, J. Quality Assessment for E-learning: a Benchmarking Approach, EADTU

\texttt{http://e-xcellencelabel.eadtu.eu/tools/manual}

\textsuperscript{26} Laurillard, D. (2012). *Teaching as a Design Science. Building Pedagogical Patterns for Learning and Technology*, Routledge
12. Opportunities of blended and online mobility

As is expressed by Daniel’s Iron Triangle\(^\text{27}\). ICT-based modes of teaching and learning can make education:

- more flexible and therefore also better accessible/scalable
- better quality and more intensive by innovative student-centered pedagogies and small-scale interactive learning communities
- more efficient by a lower variable cost per student

This is also the case with international education, as is shown in examples of transnational education online\(^\text{28}\) and in development collaboration\(^\text{29}\).

**Accessibility, flexibility, scale**

As all students world-wide can access online courses and programmes, blended and online collaboration and mobility can upscale international higher education at all levels, including the doctoral level. By flexibility, time zones and geographical borders can be overcome by the independence of time and place.

Especially asynchronous learning activities conceived for independent learning are scalable as well as activities requesting only small scaffolding by teachers. Scalability and flexibility are inherent to online courses when designed for guided independent learning. This can be combined with interactions between students and with staff as is demonstrated by MOOCs, even at a large scale\(^\text{30}\).

This creates new opportunities for internationalization as lack of scale and flexibility were hindering collaboration and mobility so far, despite the efforts of the Erasmus programme in Europe. As demonstrated by the University of London, blended and online education and mobility allow for worldwide delivery and networking.

With a successive combination of physical and blended/online mobility, all students in a class can have access to international courses/curricula, also students who prefer not to go or cannot go abroad, including students with special needs or from a disadvantaged socio-economic background (e.g. migrants, refugees).

Virtual mobility formats, e.g. blended/online seminars or projects are accessible by part-time students for whom physical mobility might be a problem. The same is the case for working students.

Course collaboration and mobility can also be organized in the framework of continuous education and continuous professional development in all sectors (see examples in Annex 1: Efese, EUTempe,…). Online collaboration in mobility in networks can easily reach out to professional networks and alumni organisations.

**Quality**

By internationalisation activities, staff can combine international education with their research and innovation networks. By this combination and collaboration, staff will enhance the quality of courses and curricula developing enriched content and using innovative teaching and learning. Staff will also


\(^{28}\) See the external scheme of the University of London: https://london.ac.uk/courses

\(^{29}\) Tessa and TESS-India. See: http://www.tessafrica.net

learn from international colleagues and universities (sharing good practices, joint innovative pedagogies for education and mobility), which structurally contributes to their continuous professional development. In university networks, these effects will be strengthened by a systemic collaboration. Innovative pedagogies enhance the quality of courses and curricula.

By the combination of physical, blended and virtual mobility in a curriculum, students have more opportunities for integrating an international learning experience in their portfolio, as they have more opportunities to develop competences as intercultural and linguistic skills, online collaboration, media and digital skills, online team work and networking; open mindedness and critical thinking\(^{31}\).

By these competences, students improve their chances on the labour market.

Internationalisation activities enhance staff career opportunities as universities increasingly recognize teaching quality and international collaboration in career assessments.

**Efficiency**
Although virtual mobility can’t replace the international immersion in physical mobility, course and programme developers have to evaluate for each single course/curriculum if and where blended and online mobility can support and complement physical mobility and where it can lead to an academic experience on its own (next to physical mobility).

For each student, successive physical and blended/online mobilities can be designed for the degree cycle he is starting. Mobility can be part of the study career of every student.

For the large-scale development of networked and joint programmes aimed at in the European University initiative, physical, blended and online mobility have to complement each other to keep the (mainly travel and subsistence) cost to students under control.

By a deliberated balance between face to face, blended and online learning activities and related mobility, international education becomes more efficient as considerations concerning educational organization, pedagogies and resources are adequately weighted.

**Internationalisation, outreach**
Universities can strengthen their profile, attractiveness and competitiveness by collaborating in networks and to develop a mobility policy for all students. By this collaboration and mobility, curricula are internationalized in a context of globalization and create an international experience for all students. This is only possible by combining physical and blended mobility.

Specifically for virtual mobility, multiple universities can be involved simultaneously in learning activities (multi-campus education), as learning environments can be connected across borders and host international learning communities. This is in particular suitable for networked collaboration in virtual seminars/projects/think/tanks or in networked and joint curricula.

Especially, when scalability is requested, blended and online collaboration and mobility is adding opportunities. This is also the case for development collaboration.

Because of the flexibility and scalability, online collaboration and mobility create new possibilities for international continuous education and continuous professional development.

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\(^{31}\) See: Open Virtual Mobility. Accessible opportunities for virtual mobility skills in higher education. [https://www.openvirtualmobility.eu](https://www.openvirtualmobility.eu)
13. Barriers for blended and online mobility

The decision for organizing physical, blended or online mobility is to be made by teaching staff. This will be based on the objectives of the course, student characteristics and on principles of international course and curriculum design as explained in section 11. A balance should be found between physical mobility with immersion and blended or online mobility also leading to an international learning experience and skills development.

Despite the clear opportunities of using a diversity of mobility formats in a curriculum, staff and university policy makers are confronted with different kinds of barriers, hindering innovation in internationalization.

Developments slow in large parts of Europe

An increasing number of online courses are available for internationalizing the curriculum, but large parts of Europe don’t follow the pace of development in Anglo-Saxon countries, notably in the UK, the US and Australia. The number of these courses and curricula is still limited, although MOOCs through European and US MOOC platforms like Futurelearn, France Université Numérique, Miriadax, EduOpen, next to Edx and Coursera.

It is expected that the European University initiative and the eU.University hub will boost new developments as they will activate collaboration and mobility within networks. Virtual mobility will increase as the number of online courses will increase.

Blended/online collaboration and related mobility is of utmost importance for creating an international academic experience for all students. Innovative concepts on international course/curriculum design will increase the quality and scalability of this experience.

Lack of awareness, experience and expertise

Blended and online education is not yet mainstream in most European universities, although it is expanding. This is even more the case regarding blended and online collaboration and mobility. As a consequence, there is a lack of awareness about the opportunities of online collaboration and mobility. Even, confusion about the vocabulary (virtual mobility, blended mobility) leads to reluctance to engage and to imagine solutions outside of the comfort zone of familiar internationalization practices.

However, experience and expertise in online collaboration and mobility is growing and systemized, mainly in strategic partnerships under the Erasmus programme. But in many institutions, teaching staff still doesn’t know where to find support for organizing virtual mobility.

Exchange of experience and expertise between universities and expert organizations is needed.

Administrative issues

After three decennia of implementation, the administration of physical mobility in universities is streamlined by expert professionals in international offices. There is no reason to organize blended/virtual mobility along different administrative flows. This can be facilitated by recent instruments like Erasmus without papers and adapted documents provided by EPICs.

However, many universities seem to face administrative issues, e.g. when implementing a virtual exchange with MOOCs. This is mainly due to the fact that in some, students can only register for

32 This can be done by the EMPOWER programme of EADTU, which is hosting an expert pool in internationalization, and by the eU.University hub.
33 https://eadtu.eu/home/policy-areas/virtual-mobility/projects/110-epics
university programs and not for single courses. In this case, administrative systems in universities are not adapted for course mobility and funding schemes even don’t provide funding at this level.

The organization of mobility at the central level of universities as well as in faculties should allow for registration at the course level. This is also required to allow collaboration and mobility within the European University initiative. This requires legal adaptations in some countries.

**Time zones and course tables**
Different time zones and different class schedules are well-known barriers for synchronous learning activities like virtual classrooms, even more when multi-campus activities are to be organized. Asynchronous learning activities are a solution, requiring connected learning environments or access to one common environment.

The balance between synchronous and asynchronous activities should be the result of international course design, taking into account pedagogical principles and the organizational context.

**Learner control and structure**
Learning activities in blended and online courses require largely independent learning and discipline, which can increase no show rates, even more when a course is not mandatory (e.g. elective courses).

To promote study progress and to avoid drop-out, courses should be given enough structure. Independent learning and structure should go together, which concerns educational design.

**Linguistic barriers**
In international courses, language can be an issue, which in most cases is solved by using English as a lingua franca. For some learning activities, e.g. attending video-lectures or YouTube sessions, subtitling can be a solution, but this is adding to the cost of learning activities.

**Digital maturity**
Different institutions have different (study) cultures and different pedagogical models, also in blended/online education and mobility. Blended and online education and related mobility formats go along with the digital maturity of institutions and teaching staff.

When starting online collaboration and mobility, intuitive schemes are used, based on experience of staff, e.g. providing videotaped lectures in learning environments.
In a next stage of maturity, learning activities and mobility are systematically conceived according to principles of educational design.
In a further stage, the quality assurance system provides feedback which is taken into account in the further development of a course or curriculum.

International curriculum and course design is a discipline in development. Published good practices should contribute to it.
14. Policy recommendations

In the Peer Learning Activity 12-13th December 2018, policy recommendations at all levels are discussed. They were finished off as follows for further discussion by institutions and public authorities:

Higher education should (Micro):
- Benefit from the opportunities of networked and joint educational initiatives by digital education, involving multiple campuses simultaneously, e.g. in virtual seminars and think tanks, or in joint curricula in the framework of the “European universities” initiative.
- Benefit from specific features of digital education which add to the quality and intensity of education, e.g. inquiry learning activities on the internet, communication with staff and peers, learning communities, e-assessment and feedback.
- Benefit from the flexibility of digital education in international education: next to synchronous, also asynchronous formats, taking into account different time zones and conflicting course tables; adaptiveness to different prior knowledge levels.
- Benefit from the opportunities with regard to the granularity of digital education. Collaboration and mobility is possible for all organisational units: learning activities/modules, courses, MOOCs and short courses, degree programs (networked, joint) and for all qualification levels: foundation, bachelor, master and doctorate.
- Benefit from the scale and cost-effectiveness of digital modes of teaching and learning in international education. The larger the number of students, the lower the cost per head (lower variable cost). As a consequence, transnational (blended and) online education enables universities to multiply international student numbers while keeping quality under control.

At institutional policy level (Meso):
- Universities should develop leadership with regard to the internationalisation of education. International education should be part of mainstream curriculum development
- Support should be given to programme coordinators and teaching staff to develop an international dimension in education, facilitating collaboration in broader networks and consortia
- Select blended/online internationalisation pedagogies, depending on educational design, taking into account the needs for flexibility and scalability and the quality requirements for international education
- International relations offices should extend their activities to international curriculum and course development in connection with teaching and learning support services. Especially, they should focus on international collaborative pedagogies and innovative mobility formats
- Organise on site staff training, bringing in external expertise and stimulate staff to experiment with blended education, online short degrees and MOOCs along their research interests
- Create subject area communities and share online course materials as a source for international collaboration and mobility (OER)

At the national and European level (Macro):
- University networks should develop and support the institutional leadership of their members with regard to blended/online transnational education and online/blended collaboration and mobility
- University networks should stimulate members to organise networked/joint collaborations, e.g. virtual seminars, think tanks, student exchange with MOOCs and online courses, networked programmes, joint programmes
- Networks/agencies/governments should create subject area/programme communities and share online course materials, taking into account their international use
- National strategies should build a framework to promote, stimulate and activate international blended/online collaboration and mobility between universities. Virtual mobility as a
complement to physical mobility will support this process and intensify the international learning experience for all students.

- Internationalisation policies and strategies for higher education at national level should strengthen the policies of the European Commission with regard to “European Universities” as alliances to enhance the quality of higher education and harness students with an international awareness and with international competences

- National governments should support the digital dimension in international collaboration and mobility in the European Higher education Area (BFUG)
15. Conclusions and message

In this report, mobility is covered in a variety of forms of running initiatives that all support enhancing the quality of the international learning experience in the framework of collaboration between institutions.

Education can be organized in face to face, blended or online modes. This is also the case for mobility which always goes together with it. It can be short and long term, synchronous and asynchronous. ICT modes of teaching and learning amplify the potential of education and the mobility related to it.

None of the forms of mobility is an alternative for replacing the other. Each form is adding to the enrichment of education, offering students the opportunity to learn international competences and skills.

Hence, all forms of mobility can be offered separately or in a combination throughout a student’s study career.

The sequence of physical, blended and online mobility will be based on principles of international curriculum and course design, taking into account scalability/accessibility for all students, the quality of the international learning experience and resources available in the partner universities.

International education and mobility schemes have to be conceived in a total approach for an entire curriculum. Hence, all networked and joint curricula will entail a balanced sequence of physical, blended and online mobility.

The European University initiative and the EU.University hub will extend international education and international mobility. This is not possible without combining different formats of international education and mobility.
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Annex 1: Innovative international pedagogies in international collaboration and mobility

1. Embedded mobility within a course

1.1 The European Virtual Seminar for Sustainable Development

*Tags: virtual seminar; learning communities; virtual mobility*

The aim of the EVS is to foster an international, multidisciplinary dialogue on sustainable development among students from all over Europe by using modern ICT and the internet. An advantage of a seminar presented as an e-learning opportunity using modern ICT and the internet is that it enables communication and interaction between the students and their teacher, and (even more importantly) between the students themselves, to be time- and place-independent. The EVS might be described as a new method to foster a dialogue between a learning community of geographically distributed students, and consists of the following components:

- A learning community of students (and staff) of different nationalities and from different cultural and disciplinary backgrounds
- A learning process that supports collaboration between geographically distributed students
- A learning content that consists of authentic, current scientific or societal problems
- A learning technology based on modern ICT and the internet that facilitates collaboration, communication and interaction between students (and staff)

The learning process in the EVS differs greatly from that in mainstream education. There are no lectures in an EVS, the students have to work in international, multidisciplinary groups, the group members cannot organise face-to-face meetings, and all collaboration and social processes depend on communication using modern ICT. Moreover, the learning process is spread over a relatively long period (i.e. 16 weeks) so as to create the best possible conditions for virtual collaborative learning and to allow the students to participate in the EVS alongside their regular study programmes. To support such an exceptional learning process, the EVS is divided into four stages:

- Orientation and student selection (2 weeks)
- Group forming and community-building (2 weeks)
- Writing group research proposal (4 weeks)
- Research case study and writing group report (8 weeks)

The organisational model for the EVS is based on a network of higher education institutions sharing expertise and investing staff time and resources. It is a bottom-up approach without formal, top-down institutional arrangements.

Institutions can become partners in an EVS run at three different levels:

- Students and an institutional coordinator participate
- Also a tutor participates
- A case study is provided as well and the expert participates

The cooperation between the partner institutions can be described as a joint process of ongoing development of the EVS in educational and organisational respects. Since the pilot in 2001, the network has undergone substantial enlargement and the EVS has been organised once a year.

The coordinators at the partner institutions are responsible for organising the EVS in such a way that their students receive credit points. At present, the EVS is a compulsory component of the curriculum at some partner institutions, and an optional course at some other institutions.
Topics for 2017-2018 were: Decoupling of Environmental Pressure from Quality of Life, Geoconservation in Hateg Country Dinosaur Geopark, Urban Waste Prevention, Innovation in European Nature Conservation Policy, Resilient Coastal Regions, and Sustainable Tourism and the Region.

Partners in 2017-2018: Open University of the Netherlands (EVS coordinator), Carl von Ossietzky Universität Oldenburg, Charles University in Prague, FernUniversität Hagen, Karl-Franzens Universität Graz, Universidade Aberta, University of Antwerp, University of Bucharest, University of Maribor, University of the Aegean. https://www.ou.nl/eCache/DEF/1/23/424.html

1.2 Think Tanks
Tags: think tank, learning community, blended mobility
The KU Leuven – Stellenbosch University Think Tank is an extra-curricular and interuniversity honours programme. Each year, both KU Leuven and Stellenbosch University select a maximum of 15 students out of all applications. The total group of 30 students will work together over the course of 10 months (from February to November) and will develop their own research project on a central theme. The participants are assisted by an interdisciplinary academic team of coaches, led by an academic coordinator. At the end of the project, the results and findings are presented to the public during a joint event.

The collaboration takes place via the available online platforms and tools. In addition, both groups of students will meet each other twice a year: once during the spring semester for a short focus week and once during the fall semester for an intense workshop week, culminating in a concluding event that will give them the opportunity to present their findings to the public. The proceedings of the programme will be in English.

Subjects were: Making the City of the Future (2015); Brave New World? Merging technology and society (2016); Art & Science: An Enduring Relationship (2017); The Voice of the People: Izwi labantu – Stem van het volk – Vox Populi – Die stem van die mens (2018); the Future of Health Care (2019).

Aims
The Think Tank provides a platform for students to deepen and share the knowledge of their own discipline, and to broaden their knowledge by stepping beyond the boundaries of their own field of study. The students' own insights and perspectives can be key in the direct dialogue with their fellow students and with experts from various disciplines. Students will be challenged to think out of the box and they will get the opportunity to use their initiative.

As a group, they help define the content of the programme. They shape their project independently and creatively. The members of the academic team will take on the role of ‘coaches’ and as such will be guided by the input of the group.

The intensive international cooperation with fellow students from another continent will confront students with a different daily reality and cultural context. This experience will provide a mirror that will force the student to look at their own context and points of view in a different way.

When
The Think Tank programme starts in February, at the beginning of the second semester, and continues throughout the summer, until the end of November.

- **February until the start of the study period**
  6 to 8 evening sessions (including video conference calls)
  Most sessions will take place on Tuesday evening at 6 p.m.
- **July and August**
  During this period, both groups of students will independently organize their collaboration, choose how they will divide the workload, decide through which channels and how frequently they will be in touch, etc.
  At the end of this two-month period, the students must be able to present to their coaches a comprehensive content statement, first versions of output and a first proposal for the format of their event.

- **September to November**
  Feedback phase. The text, and possibly some other documents as well, must be finalized. The workshop week and the event must be prepared.
  3 to 4 evening sessions (including video conference calls) will be organized to guide the groups through the process.

Participating in the sessions (incl. focus week and workshop week) and cooperating with the students in Stellenbosch are essential for the project to be successful.

**Assessment**
Selected students who have successfully completed the full honours programme will be awarded a certificate. In addition, the programme is also included in the ‘Extra-Curricular I-Portfolio’ activities.

1.3. **Studying in a virtual mobility context in the domain of Educational Science**

*Tags: online joint course, online project education, multi-campus education, synchronous and asynchronous, online learning communities, long term mobility*

An international online master level course ‘Instructional Design - Creating an educational media product’, was developed and implemented by teams from the University of Jyväskylä, Finland, the Open University of the Netherlands and FernUniversität in Hagen, Germany (2018/2019). Students of three different study programmes in Educational Science collaboratively developed a mobile learning scenario based on theories and models of educational design and realized this design in a mobile learning application. In small international groups of maximum five students, an initial idea on an educational media product was conceived and afterwards, the theoretical foundation, design, implementation and evaluation were developed in iterative cycles. The course ended with a final online presentation, evaluating the results. The course combined development of professional skills at university level with international project management and international collaboration competences.

The idea was to offer a rich international learning experience for adult students, who may be less mobile due to their life situation, e.g. who combine studies and work and family duties (Vogel et al., 2018). Thus, a high degree of heterogeneity was given, even though an obvious commonality was the educational background of the study programmes.

In order to motivate students and enable them to have an experience close to their future profession, students received an authentic task to develop an educational media product (Herrington, Reeves, & Oliver, 2010). Having a solid foundation of the product in mind, students were expected to find an adequate solution to a real life educational problem in a chosen domain by combining instructional design, technology use and a reliable grounding in educational theories.

The task was to plan, implement and evaluate an educational media project, based on mobile learning design. For this purpose, an open source software application for mobile learning design, called ARLearn, was provided by the Open University of the Netherlands. Students were expected to work collaboratively in mixed groups in an online learning environment (Moodle) that was accessible for all participants, provided by FernUniversität in Hagen. Course learning objectives included both domain
specific and generic skills and competences, such as project management and online international collaboration.

In the course, a variety of learning resources and support, like introductory videos, online meetings, wikis, as well as handouts and H5P presentations were provided. Displaying the content from beginning on and providing communication tools allowed students to work in own time and tempo on their media designs. To scaffold students’ self-organized learning, support was provided through embedded instruction and supervision by tutors. The principle of streamlining the learning process through Salmon’s ‘e-tivities’ (2013) was used to help students in structuring their group work as well as to make expectations, ways of feedback and deliverables transparent.

At the end of the eight week course, seven of the initial nine groups completed the course by presenting their designs and demonstrating their mobile applications to the teachers and each other. In their presentations, students demonstrated the developed artefacts, provided theoretical underpinnings, elaborated on the embedding of the designed mobile apps in the relevant instructional settings and showed the results of their evaluation. Furthermore, all students reflected on the design process and collaboration with students from other countries. So far, the feedback from students showed that the joint task demanded a high level of self-organisation and focus, task division and clear communication. According to students, provided communication facilities were not sufficient for effective collaboration and students turned to social media and dedicated tools of their own choice to communicate and work together. This information and the results of two surveys (formative and summative), which were made available to students during the course, should in future help to ensure an improved continuation of the course. All in all, evaluation results of the first pilot were very positive despite some technical and organisational challenges caused by different working routines and cultural traditions.

The project offered an innovative opportunity for both the course designers/lecturers as well as the students. The lecturers could explore new approaches for introducing online collaboration in the existing study programmes and benefit from the experiences of the other universities as the Digital Competence Framework for Educators suggests (European Commission, 2017). The three universities with their different backgrounds and expertise gained insights on how to enrich and improve future course design. The students were highlighting in their feedback and evaluation the unique chance for them to get in contact with students from foreign universities and to collaboratively work together on a specific task.

This international pilot course fits very well into a relatively new strand of virtual mobility. It is suitable in the category of a joint course with embedded virtual mobility at the course level. It can be summarized that the pilot is a good starting point for both improvements at course design level and the continuation of such cooperation in the future opens the door to a regular and increased institutional collaboration and virtual mobility for the three universities and their lecturers and students.


1.4 The Winter School “International & comparative studies in adult education & lifelong learning”

The Winter School “International & comparative studies in adult education & lifelong learning” at the Julius- Maximilian-University Würzburg. It is part of a blended-learning activity with a preparatory and a subsequent online phase. During the first week, there will be two separate study pathways: one for MA and one for PhD students. Practitioners in adult education (e.g. adult and continuing education
trainers, adult education programme planners, adult education project managers) who are 49 listed with the European Association for the Education of Adults and with DVV International are invited to participate in the Winter School. Just for 49 listed practitioners participation is possible only for the second week of the Winter School. During the second week, selected topics in adult education and lifelong learning are compared in comparative groups with 6-10 participants. International experts in adult education and lifelong learning will moderate the comparative groups.

https://www.paedagogik.uni-wuerzburg.de/lifelonglearning/home/

2. Exchange curricula and exchange mobility

2.1 The virtual exchange scheme (based on MOOCs)

Tags: virtual mobility, MOOCs

This virtual exchange scheme is based on online courses (MOOCs on Edx). Students take an online course at a top university and gain credits for their degree. They learn at their own pace and at a time and place that suits them, be it from their favourite spot on campus or even from their holiday destination. Inspiring lecturers from high-ranking international universities, from Australia to Switzerland and from Hong Kong our brought to their own campus. They engage with students from countries across the globe to broaden and enrich their knowledge and portfolio.

Students need a clear commitment to engage with the course and stay with the programme, so that they don’t miss out on the benefits and the partner universities are able to maintain high-standards of participation and completion. This is what the virtual exchange programme offers:

- Online, flexible, free
  Study at the time and place that suits you - more freedom, for free
- Enrich and broaden your portfolio
  Choose electives from courses from leading universities
- Access to expertise
  World-class academic staff – enthusiastic, knowledgeable lecturers the other side of the screen
- Diverse learning experience
  User-friendly courses - varied activities, multiple format content and flexible choices to optimise learning – and exclusive access to enriched content
- Connect
  Be part of a global, culturally rich student community – make connections and grow your international circle

These are the steps to be taken by the students:
Step 1: Find your online course in the online course catalogue defined by your institution
Step 2: Apply on the online learning platform of your institution and follow the guidelines to enrol
Step 3: Start your online experience

On completion of the online course and on successful final assessment (this can vary, from a written exam at the campus to a digital oral assessment with the lecturer, the student will receive credits for his grade list.

The application process is to ensure that you student scan participate and that the result will be added to his grade list. For approval of the online course as part of the study programme (e.g. elective, or part of a free minor), the student has to follow the regular procedures of his faculty or programme. The number of places available for each of the online courses can be limited.

Examples of MOOCs in this exchange scheme are: Solar Energy, Neural Dynamics, Anthropology of Current World Issues, Astrophysics, Introduction to Computing with java, English Grammar and Style,..
This Virtual Exchange initiative results from a collaboration between leading international universities. Active partners at the moment are: Delft University of Technology, École Polytechnique Fédérale de Lausanne, Leiden University, Rice University, the Australian National University, the University of Adelaide, Universidad Carlos III de Madrid, Université Catholique de Louvain, University of Queensland, UPMC Sorbonne Universités, Wageningen University & Research, Hong Kong University of Science and Technology. [https://www.tudelft.nl/studenten/onderwijs/virtual-exchange/](https://www.tudelft.nl/studenten/onderwijs/virtual-exchange/)

### 2.2 Coriolanus Online

*Tags: Virtual mobility fine arts; telepresence technology*

Coriolanus Online (Tampere, Coventry) was the first part of the two-year Immersive Telepresence in Theatre project, which in 2017 continued with King Lear, another Shakespeare play. Student actors of both universities cooperate with the support of a “telepresence” technology. At first, this technology was called “vitality”, but telepresence is now the commonly used term as the project uses actual spaces which are conjoined via technology. Coriolanus Online brought the students from Tampere in direct contact with a living Shakespeare tradition in Coventry, instead of flying in experts from Coventry to teach and play in Tampere.

Telepresence may be defined as “live video that allows for human-sized interactions, while offering clear sound and visual fidelity to individuals in remote rooms” ([Miller et al. 2015](#)) and this project explores its potential for teaching and learning in the field of performing arts. In particular, the project facilitates international virtual mobility collaborations between theatre students at the University of Tampere (Finland) and Coventry University (UK), with a particular focus on acting in a foreign language. While providing students with opportunities to engage in intercultural collaborations and to develop valuable global attributes, the project promotes a more environmentally sustainable model, diminishing the need to move large groups of student actors across the globe for rehearsals, workshops and even performances.

Initially taking the text of Shakespeare’s *Coriolanus* as a basis for study, in 2015-16 students of the two universities worked on a small section of the script (3:3) in both Finnish and English. An ‘Immersive Space’ was created in both locations through the re-purposing of videoconferencing technology and the use of large rear projection screens, high speed internet connections and unidirectional, hyper cardioid microphones. Moreover, a unified spatial design and a careful use of lighting gave the actors the illusion that they were occupying the same physical space.

A second iteration of the project took place in February 2017, utilising the same group of students and culminated in a field trip to Tampere where both groups performed together live in Telakka Theatre and demonstrated the use of the technology to an invited audience of theatre practitioners and technologists. The work continued to examine Shakespeare’s texts as the students already have some experience in dealing with Shakespearean language and the complexities of blank verse. The text chosen for this second stage was *King Lear* and we explored both a large ‘public’ scene as well as more intimate sections from the text in order to examine how this pedagogy enables rehearsal work in these differing circumstances.

The third iteration of the project was a collaboration between the team and the Theatre Academy at the University of the Arts, Helsinki and the University of Gothenburg, Sweden. On this occasion, the text chosen was Shakespeare’s *Twelfth Night* which offered the students the opportunity to explore the comic side of Shakespeare’s work, using a combination of large, intricate scenes as well as smaller ‘one on one’ segments.

The project has also crafted a unique telepresence banquet and performance of selections of *Lear Online* to support Coventry’s bid to become the UK City of Culture in 2021. For this, two banqueting spaces were created in Coventry and Tampere and participants were able to dine, converse and watch
a performance as well as gain some insights into the project and the technology used to enable this collaboration.

In March 2018, King Lear Online travelled to the GREAT Festival of Innovation in Hong Kong to perform selections from the project and demonstrate the system live. Organised by the UK Department of Trade, this was an opportunity to share the work with fellow educators and artists from across the globe.

In April 2018 the team created a ground breaking performance to open the Network Performing Arts Production Workshop conference in the New World Symphony Centre, Miami. Using a motion captured actor and live musician in Tampere in conjunction with a live performer in Miami and the state of the art NIMBRA media server to connect the two spaces, the team performed a segment from Sam Shepard’s ‘Paris Texas’.

The project continues to explore technical systems and configurations that are both affordable and user friendly so that a system for online rehearsing can be accessible to a wide variety of user groups. In order to explore alternative technologies and suitable pedagogical approaches, a workshop was hosted in December 2016 at the Disruptive Media Learning Lab of Coventry University with the aim of gathering academics and practitioners with experience in the use of telepresence in education or industry. http://telepresenceintheatre.coventry.domains/uncategorized/hello-world/

2.3 The Lived Experience of Climate Change

The Lived Experience of Climate change: interdisciplinary e-module development and virtual mobility project concerns education and lifelong learning in relation to climate change, to contribute to an informed and active European citizenry and to inform EU policy on this major challenge. Focusing on the lived experiences of climate change -- how individuals, communities and organisations conceive and respond to its perceived local impacts (e.g. extreme weather, biodiversity changes) – the project complements other work in the area. Through collaboration between nine participating institutions, designing innovative teaching modules and a virtual learning space, it aims to create a European community of scholars, students and citizens who collectively make a major contribution to the United Nations decade on education for sustainable development.

These deliberations complement, rather than duplicate, the considerable work that is already being undertaken on sustainable education throughout Europe. The educational level of the proposal is postgraduate Masters. A key feature is that it complements existing and proposed Masters programmes in the area, rather than create a parallel programme. Consortium members are free to use or adapt the content (see below) within their own programmes, through their normal accreditation processes. The teaching modules can be used flexibly by students: as available educational resources without assessment or accreditation to enhance their studies or as conventional modules with assessment and accreditation. To achieve the project’s aims, a virtual learning space contains the educational resources and facilitates learning communities and virtual mobility across the institutions.

The work has focused on three principal areas:

1. The consortium has performed preliminary research on the composition and specificities of the content modules and their deployment. The consortium reviews scenarios with respect to the pedagogic design and organisation of the content, and the potential virtual mobility of the students of the institutions involved. Institutional involvement of staff, financial and organisational issues is also investigated, as are the requirements and implementation of the interactive elements of the virtual learning space.

2. The collaborative content generation. Five postgraduate content deliverables are devised:
- An introduction to climate change in the context of sustainable development (teaching module)
- A comparing the experience of climate change in the global South and North (teaching module)
- An interdisciplinary research method for investigating the lived experience of climate change (teaching module)
- A Masters dissertation package based on the virtual learning space:
  - A repository of suggested dissertation topics
  - Hyperlinks to existing local, national and regional projects on climate change and their databases
  - A repository of Masters’ dissertations in the area
- virtual mobility package based on the virtual learning space:
  - A moderated virtual classroom for students and tutors/supervisors
  - A moderated virtual café which expands access to citizens and organisations who might be the subject of dissertation projects, allowing for a dialogue on climate change between citizens and academia
  - Ongoing monitoring of the package. The teaching modules will become open educational resources at the project end for any University to use as it wishes

3. Content delivery and virtual mobility have been piloted. Students enrol in the virtual learning space and benefit from the educational resources, learning communities and virtual mobility offered. They are guided by institutional staff who also act as learning community moderators.

http://www.leche.open.ac.uk
https://www.ou.nl/web/the-lived-experience-of-climate-change
http://www.open.edu/openlearncreate/course/view.php?id=1767

2.4 Edelnet – Schools of Law
Tags: comprehensive online collaborative programme at bachelor, master and doctoral level; virtual mobility; summer and winter schools
The FernUniversität in Hagen, the Universidad Nacional de Educación a Distancia (UNED) and the Open Universiteit Nederland (OUNI) are three leading European distance learning universities firmly devoted to further the principle of equal opportunity by safeguarding equal access to top quality higher education to everyone, using a methodology based on the principles of modern distance learning focused on the needs of the student. In 2014, after eight years of successful cooperation in the organisation of international common teaching activities on the bachelor level, these universities established a Strategic Partnership to further cultural exchange and best practices in the internationalisation of high quality education in law for all three Bologna cycles. Developed within this framework, the EDELNet (European Distance Education in Law Network) project is planned to be the first building block in the implementation of an ambitious scientific and pedagogic concept of Blended Active Learning and student oriented teaching facilitating a personal learning path with an emphasis on interdisciplinarity and intercultural communication skills as a basis for a better understanding of each other’s legal cultures and practices throughout Europe and beyond. The project has been recently awarded with European Union funding in the amount of 403.555 Euro for the period 2015-2018 by the DAAD ERASMUS+ funding programme for Strategic Partnerships (Call 2015).

In order to achieve these goals the EDELNet project comprises the development and implementation of virtual and face-to-face teaching and training activities and courseware in key methodological and substantive areas of the law, including language competences, intercultural communication skills and interdisciplinary methods of knowledge production applied to legal practice and scholarship.

The project is conceived as blended, student-oriented learning with virtual mobility at three levels: bachelor, master and doctoral. Face-to-face components are mainly Summer and Winter School.
https://blog.fernuni-hagen.de/edelnet/about-us/
2.5 Global Health Education TropEd

Tags: networked master curriculum, networked virtual mobility

“The Network for Education in International Health (tropED) is an international network of member institutions for higher education in international/global health from Europe, Africa, Asia, Australia and Latin America. TropEd provides postgraduate opportunities for education and training contributing to sustainable development. It focuses on improving the management of health services for disadvantaged populations. The innovative approach is based on mobility of people, the exchange of experiences in different disciplines and the establishment of a common standard in education and training.”

This Erasmus plus project combines the Erasmus advantage of giving students access to international expertise at different academic institutions, but avoids the administrative challenges of physical travel and residence. However, the project leaders caution, that there were some administrative challenges associated with providing students access to the different Learning Management Systems at the 3 participating campuses.

The project involved researchers and specialists in their respective fields from the Centre for International Health Bergen, KIT Royal Tropical Institute, Amsterdam and Queen Margaret University Edinburgh. Each institution was responsible for producing one online module for the programme (5 ECTS) each year over the 3 year project period. When the project period is over at the end of 2018, there will be a total of 9 online modules in Global Health Education. In addition, each institution was responsible for enrolling 8 students in the programme, for a total of 24 students. The activity in the programme is evaluated both by students and staff, and the results will be published.

Moving from face-to-face classroom teaching to online, Learning Management System-based teaching is challenging and time-consuming. However, the overall consensus is that this kind of virtual teaching/learning have many advantages for students and teachers alike. A Handbook will be developed from the project to help others who want to create online courses. The project group plans to submit another project proposal for the next Erasmus period to build on the current project’s experiences. https://www.uib.no/en/cih/114159/virtual-mobility

3. Networked curricula and mobility windows

3.1 EUTEMPE-project: blended training modules for medical physics experts

Tags: Joint blended short degree programs (postgraduate modules, certificates, diplomas,...) and mobility scheme

The main objective of the EUTEMPE-RX project European Training and Education for Medical Physics Experts in Radiology (FP7, 2013-2016) was to provide an education and training scheme that allows the medical physicist in Radiology to reach EQF level 8. The learners that were targeted by the project are medical physicists with typically 2 years of practical experience in radiology in hospitals, medical device companies or nuclear authorities, PhD students in radiology physics and biomedical engineers working in radiology. The European training scheme had to address physicists from all over Europe and especially also from the New Member States and even beyond.

In the end, the project has developed 12 modules at EQF level 8. The module leaders use a variety of modern educational tools and used a blended learning scheme: each course aimed at 80 hours of active learning by the participants, divided between a preparation phase at home via online learning and onsite training in the institution of the module leader. The major part of the theoretical knowledge is communicated upfront by means of an e-learning platform, guiding at least 40h of learning. The online phase is then followed by an interactive and practical face to face phase in the institution of the module leaders.
To familiarize the teachers with techniques of online teaching, e-learning, interacting with small groups and EQF8 assessment methods, educational workshops were organized. All modules were run as planned, with the quality survey among participants confirming the high level of the courses, the expertise of the teachers and the appropriateness of the e-learning preparation phase. The teachers reported that a very motivated group of medical physicists participated in their modules. The consortium partners have decided that they will repeat their course modules every two years.

http://www.eutempe-rx.eu

3.2 OERCompBiomed (Open Educational Resources in Computational Biomedicine)

Tags: OERs and a joint intensive course (Summer School in Computational Biomedicine) with blended learning and virtual and physical mobility between the partner institutions; staff mobility, blended student mobility; network of Master’s programmes in biomedicine (NordBioMedNet)

The field of biomedicine seeks to explain physiological and pathophysiological processes in humans at the molecular and individual level. The major goals of OERCompBiomed (Open Educational Resources in Computational Biomedicine) are to improve education in biomedicine by implementing novel courses in the form of open educational resources (OERs), and through research to increase knowledge of pedagogical design and learning analytics in relation to OERs.

People educated in the field of biomedicine are essential for modern medical research and are therefore fundamental for the development of new and better diagnostic tools and treatment strategies for diseases. A characteristic of modern-day medical research is the large amount of data that is generated relatively easily and is used to identify perturbations – ranging from the molecular to the whole body level - in patients. While its collection is essential for furthering medical advances, this data is challenging to work with and raises a number of ethical issues. In OERCompBiomed we introduce novel courses that provide students and personnel in biomedicine and related fields with the much sought after knowledge and skills that are required to handle appropriately two of the major challenges, namely computational analyses of the data per se, and awareness and handling of ethical issues arising from the ability of modern technologies to determine the molecular make-up of individuals at a population level, and the subsequent implications for disease prediction and life expectancy. In the long term, implementation of these courses in biomedical education programmes will contribute to improved prevention, diagnosis and treatment of disease, as well as increasing awareness in the general population of the ethical challenges associated with modern medical research. In turn this will help members of the general public to make better decisions about their health.

The development of OERs and the introduction of web-based courses have changed the way students acquire knowledge, how they are evaluated, and how educators teach. However, to develop OERs optimally, knowledge of and research in pedagogical design and learning analytics is required to adjust pedagogical tools to achieve the best possible learning outcomes for stakeholders. OERCompBiomed makes major contributions to this research field. Firstly, learning analytics forms an integral part of our OER development strategy, and perhaps even more importantly, after the OERs are established and the courses are running, the students’ digital activities and results will form the basis for research on learning analytics and for further development and adjustment of the OERs. The results we generate will contribute to shaping future teaching and learning, and will have impact far beyond biomedicine education and the Nordic countries.

OERCompBiomed delivers five integrated intellectual outputs (IOs) that provide novel learning material in the form of three OERs/courses (Biomedical ethics, Translational digital pathology and Introduction to Computational Biomedicine and Machine Learning), and in the form of an intensive course (Summer School in Computational Biomedicine) with blended learning and virtual and physical mobility between the partner institutions. The fifth IO (Learning analytics) designs, implements and
evaluates learning analytics of the other four IOs. The IOs will attract different groups of students and professionals both regionally and on a global scale. Study programmes in biomedicine and other relevant areas exist at hundreds of European universities, but in addition to this, the proposed OERs will attract professionals from various health care disciplines and from the pharmaceutical and biotech industry. Within the participating academic institutions alone, our OERs are relevant for 250-300 students each year, and will be mandatory for subgroups of these students. From a European and global perspective we envision around 2000 participants annually.

OERCompBiomed brings together dedicated experts in biomedical science, medical ethics, learning analytics, and educational technology. All participants are affiliated to five institutions of higher education: University of Bergen, Karolinska Institutet, University of Turku, University of Eastern Finland and the University of Southern Denmark. These institutions collaborate in an established network of Master’s programmes in biomedicine (NordBioMedNet) that has worked productively since 2013 to enhance the quality of biomedical education.

In the long term, OERCompBiomed will impact upon the European population in two major ways:
1. Better health care through improved education of researchers engaged in biomedicine, and
2. Better education in general through novel insights into which pedagogical designs are best suited to optimize learning through OERs

3.3 UNIGE-inZone courses humanitarian aid
*Tags: blended/online curriculum collaboration, virtual mobility*
UNIGE-inZone develops cooperation agreements for specific learning pathways with partner institutions in refugee-hosting countries (an example would be the BA in International Relations with Kenyatta University in Kenya which integrates a package of blended courses with research components provided by the University of Geneva-InZone). Refugee students do not pay for the UNIGE-InZone package of courses, but need to pay regular tuition at Kenyatta University for the balance of the BA course of studies - tuition is donor funded for a specific number of students.

UNIGE-InZone developed the details of the BA degree with KU faculty, then designed the learning pathway in terms of coursework and joint research through establishing equivalences with KU’s regular BA degree, and then worked with KU’s Digital School to start the implementation in the Kakuma refugee camp. [https://www.unige.ch/inzone/who-we-are/](https://www.unige.ch/inzone/who-we-are/)

4. Joint curricula and embedded/integrated mobility

4.1 The Joint Master’s Programme in Comparative Social Policy and Welfare
*Tag: Online master curriculum; embedded virtual mobility; intensive programmes*
The objective of the programme is to enhance students’ career prospects as highly qualified sociologists and social policy/welfare experts in national, European or international organizations; that are able to apply their skills in developing, implementing and evaluating social programs and projects. The students will be able to continue their studies in PhD level.

The programme offers basic academic training in the field of welfare management/ social policy development. Students will have an opportunity to increase competence and understanding of methodological issues and sociological research methods.

The curriculum for the Master’s Programme “Comparative Social Policy and Welfare” has been designed, is implemented and administered jointly by three partner-universities: Mykolas Romeris University (Lithuania), University of Tampere (Finland) and the Johannes Kepler Universität Linz (Austria).
The Programme was prepared within the framework of an EC Curriculum Development project “Development of European master’s degree programme in Comparative Social Policy and Welfare”.

Teaching and learning methods: Intensive programmes (2 weeks IP’s) in all partner universities in turn and distance learning classes (the online learning environment “Moodle”).

Students of the Master’s Programme “Comparative Social Policy and Welfare” complete their studies with a Joint Master degree. The corresponding equivalents in the countries of the partner universities are as follows:

- Lithuania Master of Sociology
- Finland Master of Social Sciences
- Austria Master of Social Sciences (MSSc)

http://www.cosopo.lt

4.2 European Format for Exchange of Social Security Education (EFESE)

Online staff mobility; networked master curriculum

The Master of European Social Security is a specialised, advanced Master's programme organised by the University of Leuven’s Faculty of Law. The programme covers the area of social security in its broadest sense, including cash benefit schemes, pensions and health care systems. It is a one-year Master’s programme of 60 ECTS. It starts with the Summer School in August and ends at the close of the following academic year (July of next year).

The programme provides in an in-depth study of social security and social protection from a legal, economical, sociological, administrative and philosophical perspective. As well as being multidisciplinary, the programme also contains strong comparative and multinational aspects, as it focuses on the provision of social protection rights across Europe. This gives its participants the opportunity to encounter the many different approaches to social security that co-exist on the continent. At the same time, it provides students with a better understanding of their own national system. The programme also addresses the role of international bodies such as the European Union.

The programme offers students the opportunity to study at one of Europe's foremost universities. At the same time, they are involved in an unique network which puts them into contact with Europe’s foremost instructors in social security as well as with fellow students from all over Europe and beyond. The teaching staff includes academics from the KU Leuven and several foreign universities as well as professionals working within the field of social security and social protection.

Most of the courses are organised in Leuven, nevertheless for a limited number of courses there is a possibility of distance learning, which opens the possibility that students remain professionally active while working towards their degree.

The Efese project

Capitalizing on the experience with the Master in Social Security (KU Leuven) a broader European project has been implemented. The rationale behind the EFESE project is that Social Security in Europe is more important than ever. Its relevance was clear during the recent economic crisis in Europe where social protection systems helped to limit the effects of the crisis, especially for the hardest-hit. Social security itself is above all a truly European field of expertise, traditionally labeled as the European social model and therefore this more innovative exchange of education on this topic is timely and necessary. The project is broadening academic and professional networks. It addresses the needs of following target groups: a) students, b) researchers, c) professionals in diverse (sub-) national social security administrations and d) policy-makers at national, European and international level by providing them the opportunity for virtual course exchange and the availability of selected on-line “open” courses
responding to the needs of professionals who have a particular interest in the field of social security but do not have the ambition to follow a full course or degree.

**The objectives of the project are**

Developing a joint course format for virtual exchange:
The coordination of social security systems is a founding pillar of the EU internal market while the European social model is closely linked to European integration. Despite its importance, social security remains a highly national and discipline-specific area (law, economics and social policy) whose study is therefore fragmented. So far, no university covers social security education in a truly comprehensive manner, covering at the same time national and cross-disciplinary perspectives. This project created a format that the partners use to virtually exchange their courses. This represents a new approach to education and opens many new possibilities for students currently not benefiting from exchange. The format consists of a set of technical standards which allows the integration of courses in the existing learning platforms at the different participating organizations (e.g. Blackboard or Moodle) and pedagogic/didactic standards that ensure a student-centered approach for virtual learning. In the framework of the 2014-2017 Erasmus+ project European Format for Exchange of Social Security Education (EFESE), 7 blended courses on European Social Security were developed.

Creation of a joint curriculum:
The idea is to join forces between top European universities who provide education in the field of social security and to synthesize fragmented approaches, paving the way for a common European curriculum. To attain the objective of a truly European comprehensive curriculum on social security, both teachers and students will be virtually mobile. The project carried out a feasibility study on a fully recognized and accredited Master in European social security by the partners. The selection of the courses covers in a complementary manner the various disciplines and expertise within social security. The project also brings innovation in teaching across the partner institutions as the format will have a strong pedagogic and didactic component. Moreover, the virtual exchange is combined with two residential learning moments. The “Young Researcher School” (summer school) brings together interested participants around their own research proposals and research methodology, thereby also exploring the potential of “blended” education (i.e. the link between on-line and residential learning).

Partners are: KU Leuven, Universiteit Kopenhagen, Universiteit Ljubljana en CECL Athene and furthermore Masaryck University Brno, Mykolas Romeris University Vilnius, Wirtschaftsuniversität Wien, Université de Luxembourg, University of the Peloponnese, Rijksuniversiteit Groningen, University of Zagreb, University of Gothenburg, Universidad Autónoma de Madrid, Observatoire Social Européen en the European Institute of Social Security.

https://www.law.kuleuven.be/EMSS

**4.3 Joint European Master’s programme in Chamber Music (ECMA)**

*Tags: Blended and online collaborative master and virtual mobility: ECMA*

This project aims at educating a new generation of chamber musicians within an innovative international learning environment based on a student-centred and research-led curriculum, which includes direct feedback from professional partners.

This is an Erasmus+ Strategic Partnership with funding from 2015 through 2018, in the field of music, based in the European Chamber Music Academy – ECMA, a network of European music universities, conservatoires and festivals in the field of chamber music. ECMA is dedicated to promoting young aspiring chamber music ensembles of the highest quality.

Higher music education institutions have been slow in adapting their curricula to new pedagogies and technologies. The project sees chamber music as a tool to modernise higher education in classical music through blended mobility, e.g.:___
- Innovative teaching and learning methodologies and new approaches to assessment for both online and classroom teaching and learning in terms of curriculum, mobility and recognition
- Two intensive study programmes a year where students and teachers meet around specific themes
- Joint staff training events for teachers to develop new approaches to assessment
- A joint European Master’s programme in chamber music. The expertise available in the partner institutions is pooled into a programme of the highest educational and artistic quality, and provide future sustainability to its activities through the recognition by national and European quality assurance frameworks and a more structured future use of ERASMUS+ funding for joint Master’s programmes
- Through this cross-border cooperation, ECMA can ensure that various national musical and pedagogical traditions can positively influence each other in their development

These activities will lead to improved curricula in the partner institutions that are informed by the latest teaching and learning approaches and the expertise from professional partners and are therefore better tailored to the current reality of the music profession. Teaching staff will be updated or re-trained with information on innovative teaching and learning methods, leading to higher quality teaching.

From a pedagogical point of view, the project creates innovative approaches to teaching, learning and assessment: The changes in the music profession with its need for independent musicians with portfolio careers necessitate music curricula to be much more student-centred than previously. This has an impact on pedagogical approaches. The one-to-one ‘master-apprentice’ pedagogical model is still strong in conservatories. However, as the students need to develop higher levels of self-reliance and self-reflection, it is necessary to implement other types of pedagogical approaches, such as group teaching with components of peer-learning and teaching approaches that are more centred on coaching than on teaching.

The current modes of assessment need to become more transparent but especially give constructive feedback for further development and bring in the involvement of students in providing such feedback. The current practice (in fact one that has not changed for decades) is too much one-dimensional (committees of teachers telling students what is right and wrong).

The primary partner is The Norwegian Academy of Music. The consortium consists of a total of eight partners throughout Europe.

https://espresso.siu.no/projects/;jsessionid=1wy6by4szh7jcqxstvbvm7o8r?0
Annex 2: Open VM competence framework

Based on the outcomes of the GCM study, seven skills and competence areas were described including their constituent skills and subskills. Furthermore, an additional competence area on the knowledge of the concept of Virtual Mobility was added.

The eight skills and competences areas are described as follows.

1. Intercultural skills and attitude

<table>
<thead>
<tr>
<th>Gaining cultural knowledge</th>
<th>Understanding cultural perspectives</th>
<th>Enhancing own cultural identity</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Gain knowledge about the culture they “visit”</td>
<td>- Improve understanding of intercultural issues at general and disciplinary level</td>
<td>- Gain knowledge about own culture</td>
</tr>
<tr>
<td>- Get to know other cultural-based perspectives of education</td>
<td>- Get a feeling of how learning (or teaching) is like in a different country</td>
<td>- Become self-aware of their own cultural identity</td>
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</tbody>
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**Enhancing cultural understanding**

- Gain international, intercultural experiences
- Experience different cultural settings (in all its facets) through online courses
- Exposure to different working and cultural backgrounds

**Demonstrating cultural understanding**

- Direct interaction with peers from other cultural settings during VM activities
- Exchange knowledge with peers from different cultural settings
- Be able to deal with intercultural issues

**Applying intercultural awareness in culturally challenging circumstances**

- Learn to reserve judgment on the people you work with, to avoid cultural misunderstandings
- Become self-aware of the cultural prejudices
- Can deal with intercultural issues
- Feel confident in interacting with people from other cultures


2. Interactive and collaborative learning in an authentic international environment

<table>
<thead>
<tr>
<th>Enhanced teamwork skills</th>
<th>Collaborating with peers from different disciplines</th>
<th>Collaborating with peers within the context of an international learning experience</th>
<th>Interacting with authentic international resources in a foreign language</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Enhance team work skills</td>
<td>- Exchange knowledge with peers from different disciplines</td>
<td>- Experience different learning methodologies</td>
<td>- Interact with libraries and databases, in other</td>
</tr>
<tr>
<td></td>
<td>- Interact and collaborate</td>
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Interactive and collaborative learning in an authentic international environment implies that the student develops teamwork skills, collaborates with peers across disciplines and contexts, acquiring new international learning experiences and interacting with authentic international tools, systems and resources in a foreign language.
### 3. Autonomy-driven learning

Being able to learn in an autonomy-driven way implies that the student self directs, and regulates own learning process, independently chooses in what mode or context to study, what tools to (learn to) use and how to organize the learning process.

**Demonstrating self-directedness in decision-making on own learning**
- Develop learning self-regulation strategies
- Develop persistence and creativity in organizing one’s own study

**Demonstrating independent learning**
- Be able to study in a flexible way, independent of time and place
- Enhance lifelong learning skills
- Adapt and further develop knowledge of Open Education ICT tools
- Learn in an open digital context

### 4. Networked learning

Being able to learn in networked way (= engage in networked learning) implies that the student is able to use digital networks in/for learning and communication in international contexts or environments and is able to tackle complex, ambiguous and ill-defined issues and situations in (emerging or existing) social networks.

**Engaging in digital networking**
- Be able to use networks (being “networking savvy”) for learning
- Learn to work and cooperate in an international setting with the use of ICT and social platforms
- Enhance international and digital competence

**Dealing with complexity in networked learning**
- Cross boundaries in learning
- Learn how to deal with complex situations
- Learn how to deal with ambiguity

### 5. Media and Digital Literacy

Media and Digital Literacy implies that the student is able to use resources effectively to learn, can assess the quality of resources and demonstrates “learner control.”
Demonstrating learner control
- Bring a high level of self-regulation competency to the online collaboration aspect
- Set one’s own learning objectives
- Organize content and schedules

Being proficient in using online learning technologies
- Awareness of the differences between on- and offline
- Proficiency in searching for new courses & resources and
- Proficiency in using digital platforms
- Proficiency of independent use of tools for online communication

Being proficient in assessing quality in courses and resources found online
- Proficiency in assessing course and OER quality

6. Active self-regulated learner skills

Being an active self-regulated learner implies that the student is able to self-regulate own learning process, can reflect on learning experience and one’s own progress and can demonstrate that he/she has the agency of one’s own learning.

Being able to self-regulate learning processes
- Be self-responsible
- Be self-disciplined
- Be able to plan & organize one’s own learning
- Be pro-active

Being able to self-reflect on learning experiences
- Be able to reflect on one’s own learning process
- Be communicative

Demonstrating ownership over own learning (attitude)
- Being motivated to learn
- Be constructive towards the course goal.
- Have both digital and cultural competences

7. Open-Mindedness

Open-Mindedness implies that the student is tolerant to others, has an open attitude towards others, demonstrates willingness to improve knowledge (of foreign languages) and demonstrates self-confidence in interaction with peers and teachers.

Being open-minded and tolerant
- Be open-minded
- Be tolerant

Demonstrating self-confidence in interaction with peers and teaching staff
- Be not afraid of interacting with peers or teachers at other institutions

Show willingness to improve proficiency in foreign languages
- Be proficient in foreign languages
- Be willing to further improve proficiency in foreign languages

8. Gaining Knowledge of Virtual Mobility and Open Education

Gaining Knowledge of Virtual Mobility and Open Education implies that the student displays a higher level of understanding of the work forms, contexts and collaboration modes that the student engages with during a Virtual Mobility activity, an Open Education activity or an Open VM activity.

Understanding Virtual Mobility
- Demonstrate understanding of Virtual Mobility models
- Improve understanding of opportunities created by Virtual Mobility context

Understanding Open Education
- Demonstrate understanding of Open Education models
- Improve understanding of opportunities created by Open Education context
Annex 3: Questionnaire Task Force Virtual Mobility

Task Force Virtual Mobility

In this questionnaire, Virtual Mobility is embracing online mobility as well as blended mobility (with face to face and online elements).

This questionnaire contains 9 open questions

* Required

1. Email address *

2. Name of institution *

3. Your Name

Good practices of Virtual Mobility within and outside the EADTU membership

Please, give a description of these practices (e.g. presented in the programme guide or ECTS catalogue of the university)

1. What are current practices concerning Virtual Mobility (VM) models in your institution?

   a. Virtual exchange with MOOCs, SPOCs
   b. Blended or online seminars, international think tanks, online joint projects,…
   c. Exchange with blended and online courses or virtual classrooms
   d. Virtual internships
   e. Blended or online staff mobility
   f. Online courses/lecture series/seminars/projects in networked/joint bachelor/master/doctoral programs
   g. Exchange in short degree programs (postgraduate modules, certificates, diplomas,…)

4. 


2. What are current practices concerning Virtual Mobility (VM) models in other institutions you know of?

a. Virtual exchange with MOOCs, SPOCs
b. Blended or online seminars, international think tanks, online joint projects,…
c. Exchange with blended and online courses or virtual classrooms
d. Virtual internships
e. Blended or online staff mobility
f. Online courses/lecture series/seminars/projects in networked/joint bachelor/master/doctoral programs
g. Exchange in short degree programs (postgraduate modules, certificates, diplomas,…)

5.

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Opportunities and barriers/obstacles for Virtual Mobility

6. 3. What are the main educational opportunities your university/staff sees with regard to Virtual Mobility?

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7. 4. What are the main administrative barriers your university/staff is facing with regard to the organisation of Virtual Mobility?

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8. 5. What are the main pedagogical challenges your university/staff is facing with regard to Virtual Mobility?

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VM as part of internationalisation strategies and plans
9. Is blended or online mobility part of your university's institutional internationalisation strategy and/or plans?

10. Is blended and online mobility part of the internationalisation strategy and/or plans of some curricula/courses in your university?

11. Are you aware of such plans in other universities?

Instruments and tools

9. Please provide examples of instruments and tools for Virtual Mobility in relation to:

a. Cooperation agreements for the virtual mobility
b. Learning agreements for virtual mobility
c. References to an online course catalogue
d. A description of cost components of a VM learning/activity course
e. Examples of financial agreements made between the institutions involved
f. Description of procedures

12.

Send me a copy of my responses.
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