

D.2.1

Quality Assurance Handbook for Virtual Mobility

PUBLIC



Authors

Airina Volungevičienė, Estela Daukšienė, Vytautas Magnus University

Contributors

Claudio Dondi, SCIENTER

Editors

N/A

Layout

Knowledge Innovation Centre

Copyright

(C) 2013 VMCOLAB Consortium

The VMCOLAB Consortium

KU Leuven	KUL	BE
SCIENTER	SCIENTER	IT
European Foundation for Quality in e-Learning	EFQUEL	BE
United Nations University	UNU	DE
University of Porto	UPO	PT
University of Granada	UGR	ES
Coimbra Group of Universities	Coimbra	BE
University of Padova	UPD	IT
Vytautas Magnus University	VMU	LT
University Politehnica of Bucharest	UPB	RO

This project has been funded with support from the European Commission. This publication reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

This work is licensed under the Creative Commons Attribution-Noncommercial-Share Alike 2.0 Belgium License. To view a copy of this license, visit <http://creativecommons.org/licenses/by-nc-sa/2.0/be/>



Document Title	Quality Assurance Handbook for Virtual Mobility
Project Title	VMCOLAB
Grant Agreement No	2012-3251 / 001-004
Project Ref	527770-LLP-1-2012-1-BE-ERASMUS-ESMO
Part of Deliverable	Deliverable D.2.1
Workpackage	WP 2 – QUALITY ASSURANCE APPROACH FOR VIRTUAL MOBILITY
Confidentiality Status:	Public

Revision	Date	Author	Comments
0.1	6 March 2013	Airina Volungevičienė, Estela Daukšienė, Vytautas Magnus University	
0.2	22 April 2013	Airina Volungevičienė, Estela Daukšienė, Vytautas Magnus University	Inclusion of feedback from partners



INTRODUCTION

This handbook aims to facilitate higher education institutions (HEI), teachers and institutional departments to get involved in virtual mobility (VM) planning and implementation. The handbook introduces the VM process through its five main phases and provides guidelines for VM preparation and implementation.

In order to introduce VM, a definition is needed for this phenomenon. In the VMCOLAB project and this handbook, we will refer to VM as:

- “a set of information and communications technology supported activities, organized at institutional level, that realize or facilitate international, collaborative experiences in a context of teaching and/or learning”^[1]

This handbook is based on several project experiences and several scenarios that were identified by VMCOLAB consortium institutions. The projects are referred to in the text of the handbook, as well as VM modes, explained under each part of the handbook.

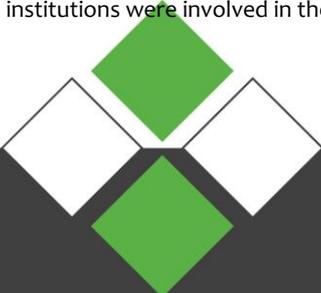
This handbook describes quality criteria and indicators, as well as VM elements¹. Scenarios for different VM modes² were identified during numerous project experiences among the consortium, but the most complex scenario is curriculum designing for VM involving multilateral teacher and student VM³. These VM scenarios allowed the authors of this handbook to suggest necessary procedural steps and sequences for quality criteria attribution to VM phases and VM features.

The descriptive text in this handbook serves the purpose of explaining and introducing VM modes and phases. Reference tables produced for each phase serve the purpose of defining VM implementation quality standard.

¹ These quality criteria and virtual mobility elements were initially identified during Movinter project

² More of them are available and were initially designed during TeaCamp project (<http://www.teacamp.eu>)

³ The complex curriculum designing experience was described using TeaCamp project experience, when 6 higher education institutions were involved in the same study subject curriculum designing and delivery.



QUALITY CRITERIA DESCRIPTION AND VIRTUAL MOBILITY IMPLEMENTATION PROCESS

The Virtual Mobility Quality Assurance handbook is based on the quality criteria identified and specified during the Movinter project “Virtual mobility framework” final version. There were 20 quality criteria identified – 8 general and 12 specific. In this document they are referred to as *virtual mobility quality criteria*. The criteria are described by their indicators and their usage for HEIs in the virtual mobility process. The VM quality criteria can be found in Table 1 of Annex 1.

This part introduces virtual mobility process based on a 5 - stage model:

1. Decision making
2. Curriculum design
3. VM organization and communication
4. Assessment and Feedback
5. Certification and Recognition

Each phase is described in terms of VM elements (or features, as they will be called in this handbook) in the context of two scenarios – teacher virtual mobility and student virtual mobility, under conditions when VM is implemented bilaterally or multilaterally. Each feature will be described in terms of the:

- necessary steps that an institution needs to undertake during each phase to meet further implementation phases successfully (which are listed under each virtual mobility characteristic to be achieved)
- success indicators based on general and specific virtual mobility criteria⁴,
- description of each characteristic or step to facilitate its implementation at HEI,
- indicators about whether the feature is mandatory (M) or optional (O) for teacher (TVM) and student (SVM) virtual mobility, in case of bilateral or multilateral HEI collaboration settings.

Phase 1. Decision making

During the decision making phase, higher education institution(s) (HEI) should decide on the virtual mobility mode (bilateral or multilateral) and the target group that will aim at international exchange (student (SVM) or teacher (TVM) virtual mobility), or mixed mode. To facilitate the decision by HEIs, SVM and TVM will be described in terms of steps needed to be taken to prepare and implement VM, conditions necessary to fulfil all the steps and VM features.

⁴ Their references are taken from MOVINTER project quality criteria provided in Table 1 in Annex 1. These references are used as references in column 1.



Student virtual mobility (SVM)

1. International student groups should be formed between/among collaborating institutions on the basis of mutual confidence relationships for SVM virtual exchange.
2. International (bilateral or multilateral) institutional agreements are signed for SVM implementation, following commonly agreed and accepted application forms for SVM virtual exchange and credit transfer forms based on academic certificates issued by the hosting institution.
3. The hosting institution should have the offer for SVM available in advance, which consist of curriculum designed for VM, assessment forms and academic certificate forms consistent with credit transfer and recognition forms agreed with sending institutions.
4. Students can choose a shorter or a longer virtual exchange at the hosting institution (which should be indicated in the application) independent of prior/future physical visits to the same or different institution, choosing optional or joint – title courses from the hosting institution. The virtual exchange should however last not less than within the framework of one study subject, so that the credits received at the hosting institution for study learning outcomes can be transferred and recognized on the basis of an academic certificate.
5. International relation offices receive student applications for SVM and involve study departments to host visiting students.
6. Teacher(s) at hosting institution are assigned to intercultural international groups on the basis of internal institutional regulations and curriculum offer.
7. International student groups can be formed from visiting mobility students (physical visits at university campus) and virtual mobility students, as well as host students from the host institution.
8. Hosting institution should ensure equal access to VM curriculum for both groups of students (physically present at campus and those participating virtually) via pre-arranged ICT infrastructure.
9. In case of SVM, TVM can happen, but it is not a mandatory condition for SVM, and it largely depends on the curriculum designed for VM. It is not mandatory to have an international teaching group in the case of SVM.

Bilateral or multilateral SVM would differ mainly in VM student records. HEIs should keep in mind that students undertaking VM from one or several institutions can be registered only in 1 hosting institution at a time. Following this regulation, SVM should either allow flexible registration of students in terms of time scale during a VM project (short – term virtual visits, but not shorter than a semester), or SVM should be organized in longer terms to allow multilateral cooperation that lasts more than one academic semester. Then students can be registered in several institutions collaborating multilaterally on the basis of a VM multicultural exchange.

A student academic record at a host institution is an obligatory condition in order to achieve academic certificate on the basis of study records and to ensure credit transfer recognition by two or more collaborating institutions, on the basis of commonly agreed academic forms and collaboration agreements.

For this reason, in order to implement SVM and to recognize SVM outcomes, bilateral (not multilateral) institutional collaboration is recommended, especially if HEI implements SVM for the first time.

The mode of VM would not affect the same way TVM, as teachers usually have shorter term of VM and can stay in several hosting institutions during one semester.



Teacher virtual mobility (TVM)

1. TVM should be implemented between/among collaborating institutions on the basis of mutual confidence relationships.
2. International (bilateral or multilateral) institutional agreements are signed for TVM implementation, following commonly agreed and accepted application forms for TVM exchange and documents certifying virtual teaching and exchange by the hosting institution.
3. If TVM is implemented on the basis of bilateral agreement:
 - a. teachers from both institutions might organize learning on the basis of a mutually designed curriculum (based on the agreement of exchanging classes virtually either at one or both institutions)
 - b. the teacher from one institution might have a virtual visit to the hosting institution and organize learning within a pre-agreed study program/study subject for a shorter or longer period of time (as in an Erasmus mobility case, but without the need to travel).
4. If TVM is implemented on the basis of a multilateral agreement, multilateral international group of teachers should organize learning on the basis of mutually designed curriculum (further steps are described in curriculum designing part of this handbook). Multilateral virtual exchange of teachers should ensure TVM recognition by certifying documents from all participating institutions.
5. Teachers can apply for a shorter or a longer virtual exchange at the hosting institution (which should be indicated in the application) independent of prior/ future physical visits to the same or different institution.
6. International relation offices receive teacher applications for TVM and involve study departments to host visiting teachers.
7. Teachers at the hosting institution are assigned for VM exchange on the basis of internal institutional regulations and curriculum offer.
8. International TVM can be implemented with students from one or more institutions collaborating in VM. Students can be physically placed in one or several geographical areas and institutions, participating in virtual exchange.
9. The hosting institution should ensure equal access to TVM for both the hosting institution student groups and others participating virtually in VM exchange via a pre-arranged ICT infrastructure.
10. In case of TVM, SVM can happen, but it is not a mandatory condition for TVM, and it largely depends upon the curriculum designed for VM.

The following features described by quality criteria and process requirements will allow the institution(s) to identify the steps they need to implement to meet each feature qualitatively:



TABLE 1. REFERENCE ITEMS FOR HEIS TO MEET THE QUALITY REQUIREMENTS AND STEPS NEEDED DURING DECISION PHASE.

1. No. (+VM Quality criteria reference)	2. VM feature	3. Description	4. TVM		5. SVM	
			Bilateral	Multilateral	Bilateral	Multilateral
1.1.	International student groups	International student groups should be formed at a hosting HEI in order to ensure credit transfer and recognition at a later phase.	O	O	M	M
1.1.1. (18-2)	<i>International inter-institutional agreement is signed for SVM, is publicly accessible and is well known by all stakeholders involved</i>	<i>Bilateral or multilateral institutional agreements should be signed and annexed with commonly agreed student application forms for SVM and student academic certificate and credit transfer and recognition forms.</i>	O	O	M	M
1.1.2.	<i>International relations office has approved student application forms for SVM and are trained to proceed them</i>	<i>Institution has regulations and order on how to treat applications for SVM.</i>			M	O
1.1.3.	<i>Department of academic affairs and study departments have approved SVM academic certificate and credit transfer and recognition forms for SVM and are trained to proceed with them</i>	<i>HEI has approved academic certificate, credit transfer and recognition forms adapted and ready to use for SVM.</i>			M	O
1.1.4.	<i>HEI is prepared to ensure building international student groups including host students, students on physical mobility visit and virtual mobility students</i>	<i>HEI has clear regulations which allow student groups to consist of physically present and online students in SVM.</i>			M	O
1.1.5. (13-1)	<i>In case SVM happens in joint study programs, institutions participating have a clear policy for joint programs and joint titles</i>	<i>HEI has policy and/or regulations for joint study programs and joint title recognition and requirements.</i>	M	O	M	O
1.1.5. (13-2)	<i>The international relation by rectorate is supportive of VM and helps integrating it in the overall international relation function as a partnership – building option</i>	<i>The rectorate supports VM in a written form (regulation or order is issued and approved).</i>	M	M	M	M
1.1.6. (16-1)	<i>Compliance with existing norms and regulations is fully implemented</i>	<i>VM implementation is discussed among study organization departments and approved as compliant with other study organization regulations and norms.</i>	M	M	M	M



1. No. (+VM Quality criteria referenc e)	2. VM feature	3. Description	4. TVM		5. SVM	
			Bilateral	Multilateral	Bilateral	Multilateral
1.2.	International Teaching Group	Participating teachers should belong to institutions of different countries in order to guarantee that different national and cultural perspectives are made available to the learners	M	M	O	O
1.2.1. (18-2)	<i>International inter-institutional agreement is signed for TVM, is publicly accessible and is well known by all stakeholders involved</i>	<i>Bilateral or multilateral institutional agreements should be signed and annexed with commonly agreed teacher application forms for TVM and documents certifying TVM recognition forms.</i>	M	M		
1.2.2.	<i>International relations office approved TVM application forms and are trained to proceed them</i>	<i>Institution has regulations and order on how to treat applications for TVM.</i>	M	M		
1.2.3.	<i>Department of academic affairs and study departments have approved TVM organization and recognition forms and are trained to proceed with them</i>	<i>HEI has approved academic certificate, credit transfer and recognition forms adapted and ready to use for TVM.</i>	M	M		
1.2.4.	<i>HEI is prepared to ensure building international teacher groups and ensuring their collaboration in terms of sharing study subject organization</i>	<i>HEI has clear regulations which allow teacher groups to organize and implement VM, when one or more teachers are present online or virtually.</i>	M	M	O	O
1.2.5.	<i>Participating teachers should have agreed upon joint curriculum (on the level of subject), developed curriculum and are aware of virtual exchange syllabus and schedule</i>	<i>Teachers implementing VM have reviewed and validated curriculum and agreed upon VM organization schedule.</i>	M	M	O	O
1.2.6. (8-1)	<i>VM activities are recognized as integral part of academic activity at HEI</i>	<i>If virtual mobility is not an integral part of academic activity and creates additional administrative or other issues for participants to get involved, the motivation to participate may be much less, and participants may also underestimate the VM benefits</i>	M	M	M	M
1.2.7.	<i>Teachers are competent in VM curriculum designing, organization and assessment of learning outcomes</i>	<i>The competence of teachers to design VM curriculum affects students engagement, VM experience and attitude towards VM implementation, which are very important in the beginning of the VM process implementation.</i>	M	M	M	M
1.2.8. (9-1)	<i>Teachers are competent in the identification of VM activity potential and benefits</i>	<i>As teachers are the key players of the VM implementation process, their knowledge about VM possibilities and benefits plays a crucial role in curriculum design and organization and communication phases</i>	M	M	M	M



1. No. (+VM Quality criteria reference)	2. VM feature	3. Description	4. TVM		5. SVM	
			Bilateral	Multilateral	Bilateral	Multilateral
1.2.9. (11-3)	Joint resource development is common practice among teachers in different countries/ institutions and this activity is recognized during promotion and attestation	HEI has a procedure on how to review and recognise joint resource development efforts, as well as motivate teachers to share resources.	M	M	M	M
1.2.10.	Technical assistance is ensured by all participating institutions to teachers working in VM	HEI has a technical assistance office.	M	M	M	M
1.2.11. (18-2)	Teachers are visible in and recognized by partnership agreements for VM implementation	Partnership agreements exist and teachers are recognised and indicated in partnership agreements or their Annexes.	M	M	M	M
1.2.12.	Teaching hours are re-structured (but maintained) meeting the needs of VM processes	HEI has a flexible policy on restructuration of teaching hours.				
1.3.	Appropriate technological solutions	The organizational process and cost effectiveness depends on the technologies that institutions possess or have access to, so the assessment of appropriate technological solutions to be used should be made in the decision phase.				
1.3.1 (12-1)	ICT solutions ensure equal access to all VM participants	ICT solutions are appropriately chosen to ensure access to all material and for all VM participants.	M	M	M	M
1.3.2.	Technological infrastructure is used which is commonly known to participating institutions and allows user identification at home institution	Technological solutions do not bring challenges to participants or adequate support is provided. Participants are identified at home institution, as well as hosting institution.	M	M	M	M
1.3.3.	Technical solutions are highly context related and suited and up to date with technological trends	Modern technological solutions are used according to teacher needs.	M	M	M	M
1.3.4.	Technological solutions allow networking and sharing	Social networking tools are integrated.	M	M	M	M
1.3.5. (12-2)	Support unit services are ensured for all participants	Each participating institution has to have a technical support unit that participants could address before or during the VM exchange	M	M	M	M



1. No. (+VM Quality criteria reference)	2. VM feature	3. Description	4. TVM		5. SVM	
			Bilateral	Multilateral	Bilateral	Multilateral
1.4.	Joint choice of the subject to be studied through VM	The joint choice of the subjects to be studied through VM and the design of the learning approach should reflect a clear perception of the advantages that a multi-country, multi-cultural and broadly comparative approach may bring to the students. Examples such as comparative literature, important policy and social issues (in general all address issues related to the well-being of the population) may well illustrate fields in which the value added of a multi-country and an intercultural perspective of VM is considerable.	O	O	O	O
1.4.1.	<i>HEI consolidates study departments in search of interdisciplinary and global subject – based subjects integrated in study programs</i>	<i>HEI policy allows and gives priority to offer interdisciplinary and global study subjects for VM.</i>	O	O	O	O
1.5.	Joint curricula design	This feature adds enormous value in terms of reciprocity and mutual benefits in the relationship among participating HEIs, avoiding the possible inconvenience of having a leading HEI providing the conceptual and scientific strength to the teaching/learning programme and the partner HEIs assuming a mere teaching and local support role. This point is particularly delicate when HEIs of differently developed continents are involved as partners. The correct identification of complementarities between HEIs and partners promotes a sense of a shared goal with shared responsibilities and outcomes.	M	M	O	O
1.5.1.	<i>Joint curriculum is based on jointly agreed learning outcomes which are a part of the HEI study program curriculum.</i>	<i>Participating institutions agree on learning outcomes which are a part of the HEI study program curriculum.</i>	M	M	O	O
1.5.2. (4-1)	<i>All participating HEI ensure learning organization using coherent learning strategies with learning outcomes.</i>	<i>Teachers review curriculum and offer learning strategies and assessment methods that are consistent.</i>	M	M	M	M
1.5.3. (4-3)	<i>All components of the joint curriculum design meet the quality criteria for TEL curriculum, and VM organization is ensured by coherent application of inter-</i>	<i>Curriculum ensures inter-cultural, international and academic exchange.</i>	M	M	M	M



1. No. (+VM Quality criteria referenc e)	2. VM feature	3. Description	4. TVM		5. SVM	
			Bilateral	Multilateral	Bilateral	Multilateral
	<i>cultural, international cultural and academic exchange.</i>					
1.5.4. (16-2)	<i>IPR and code of practice are in place.</i>		M	M	M	M
1.5.5.	<i>VM and TEL curriculum quality assurance should be organized and formalized in each participating institution.</i>		M	M	M	M
1.6.	Joint titles	Although not a necessary element in VM from a theoretical and methodological perspective, the agreement - among the participating institutions - to deliver a joint certificate at the end of the programme acts as a powerful motivation factor which allows participants to credit the virtual mobility experience as a fully recognised part of an academic or training experience and achievement.	O	O	O	O
1.6.1.	<i>Learning outcomes should be jointly recognized and used in a joint course/ program</i>		O	O	O	O
1.7.	Mutual confidence relationship	Last but not least, the mutual confidence relationship has a fundamental role in VM experiences. It is an intangible but powerful element that strengthens all other VM components and enable the activation of HEI unaware resources and potentialities that could benefit VM further development. Mutual information openness and transparency with regards to different missions and performance of HEIs are then the capstone of this peculiar component.	M	M	M	M
1.7.1.	<i>Inter-institutional confidence is built on the basis of quality assurance, problem – solving, teacher professionalism, transparency and openness</i>	<i>HEIs participating in VM recognise each other's professionalism in all VM quality assurance requirements via inter-institutional contract, even without mentioning specific details.</i>	M	M	M	M
1.7.2.	<i>Inter-institutional confidence relationship is witnessed and openly visible, bringing successful project result testimonies</i>	<i>Testimonies are prepared and made available after VM sessions.</i>	M	M	M	M



1. No. (+VM Quality criteria reference)	2. VM feature	3. Description	4. TVM		5. SVM	
			Bilateral	Multilateral	Bilateral	Multilateral
1.8.	Resources and support					
1.8.1.	<i>Policy and management resources are available to support VM and cooperation.</i>	<i>Administration discusses resources needed for VM and ensures their availability.</i>	M	M	M	M
1.8.2.	<i>Economic resources for VM designing and implementation are available</i>	<i>Administration discusses resources needed for VM and ensures their availability.</i>	M	M	M	M
1.8.3.	<i>ICT resources, such as virtual learning infrastructure, available to all participants, video conferencing, multimedia laboratories are in place and available</i>	<i>HEI has a technical support centre and adequate ICT resources discussed and confirmed among all participating institutions/ individuals.</i>	M	M	M	M
1.8.4.	<i>Human resources to support teachers and learners are in place and available (a separate administrative or study unit is necessary for this support)</i>	<i>HEI has technical support specialists who are assigned and introduced to all participating institutions/ individuals.</i>	M	M	M	M
1.8.5.	<i>Online support system is available for participants (help desk, FAQ, automatic registration or other type of support)</i>	<i>HEI has an adequate online support system for automatisation of VM support process.</i>	M	M	M	M

Phase 2. Curriculum design

Curriculum design for VM should be adapted to the chosen VM mode: **TVM, SVM, TVM + SVM, bilateral vs. multilateral**. Curriculum design scenarios will differ according to each mode. However, the main elements which will differ in each case will be based on **joint decisions** (joint titles/learning outcomes, joint choice of study subjects, joint schedule, joint student groups, joint numbers of students in groups, etc.). Though “decision” is important here more than anything else, these decisions are directly influencing the curriculum design and are not always (or even only sometimes) made on the institutional level. If HEIs support mobility modes, curriculum authors and designers are already supported to accept curriculum design decisions for different modes.

In the following paragraphs, all the modes will be presented with the focus on decisions that need to be taken before and during curriculum designing.



Curriculum design for bilateral or multilateral TVM mode

In this case, teachers from two or more HEIs participate in VM curriculum design and should decide:

- which learning outcomes will be shared between/ among participating teachers
- how many credits will these learning outcomes correspond to
- how many students can build international student groups
- how international student groups will be built
- how teachers will share schedule time to organize VM within one/more than one study subject
- which learning methods will be used in VM (active learning, group work, etc.)
- how many activities and learning resources should be distributed consistently among study subject milestones (weeks, months)
- how synchronous and asynchronous communication will be ensured between teachers and among students
- what assessment methods and criteria will be used
- bilateral/ multilateral teacher – designed curriculum should be peer reviewed before SVM
- which and how many institutions participate in VM curriculum designing (for multilateral TVM only)
- how technical support will be provided for teachers
- which technical infrastructure will be used and how teachers will be identified there as users of the technical infrastructure

Here is the scenario provided for multilateral TVM based on international inter-institutional multilateral TVM implemented in the Erasmus Virtual Campus project “TeaCamp: Teacher virtual mobility – research, practice, apply”:

VM CURRICULUM (A STUDY SUBJECT) “VIRTUAL LEARNING IN HIGHER EDUCATION (VLHE)”

6 partners are responsible for curriculum content development. Each HEI prepares 1 topic (sub-module) of joint curriculum under the general subject „Virtual Learning in HE“. During the VM organization, each HEI organizes studies for 1 or 2 weeks on the topic (sub-module), inviting students from all participating institutions for VM exchange and studies (synchronously, during the same week(s) using video conferencing and Moodle VLE).

A joint course consists of 6 learning outcome – based study sub-modules (8 academic hours each using various learning scenarios and resources), including learning result assessment strategy. The whole study subject amounts to 6 ECTS (video lecturing, individual student work, teacher consultations and evaluation of learning outcomes).

The aim of “Virtual Learning in Higher Education (VLHE)” study subject is to enable students to plan and experience virtual mobility sessions by practicing video lecture participation, performing group and individual online activities, using and sharing virtual resources in multicultural virtual learning environment.



STEP 1 to design curriculum: agree on learning outcomes and share responsibilities for sub-module development (see table 2):

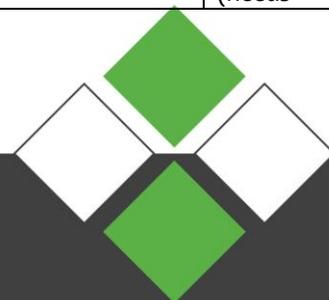
TABLE 2. AGREEMENT ON AND SHARING OF SUBJECT LEARNING OUTCOMES AMONG DIFFERENT HEI FOR MULTILATERAL TVM.

Overall subject	Uni X (LO)	Uni Y (LO)	Uni Z (LO)	Uni W (LO)	Uni Q (LO)	Uni A (LO)
Virtual learning in HE	Culture Models (to identify and explain culture models in VM, week 1 and 12)	Information Literacy (to identify and use information resources week 2-3)	Collaborative online learning (to evaluate the use of online collaborative learning, week 4-5)	Advanced learning technologies (to identify and use ALT, week 6-7)	Learning strategies (to identify and choose individual learning strategy, week 8-9)	Assessment strategies (to prepare and use assessment strategy, week 10 – 11)

STEP 2 to design curriculum: fill in suggested matrix to facilitate curriculum development and maintain consistency of the subject ECTS (see table 3):

TABLE 3. DESIGNING CURRICULUM CONTENT (LEARNING RESOURCES) – EXAMPLES OF 2 SUB-MODULES PLANNING (SEE ALSO TABLE 2).

Topic	Learning outcomes	Material and resources	Activities scenario	ICT tools to realize topic online	Evaluation strategy
Culture models (week 1 and 12 during testing sessions)	Ability to identify and explain culture models in VM	Theoretical reference (pages to read, video record length to listen, etc.)	Activity 1. Discuss culture models mutually and make presentations in 2 groups on.... via video conference. Deadline – end of week 1. Activity 2. Having studied for 12 weeks in VM, prepare presentation – report about what cultural differences you identified in your intercultural group. Make a presentation using video conference. Deadline – week 12.	Moodle VLE Video records (OER, YouTube, other) Video recorded lecture by the teacher Moodle VLE assignment tools Adobe Connect (or other) for Activity 2 presentation.	Portfolio
Learning Strategies	Ability to define learning strategy	Theoretical material Meta-cognitive tools (self-	Activity 1. Participation in an online lecture. Reading theoretical material Identifying personal learning strategy	Survey tools – to identify learning strategies Curriculum development	Feedback options Portfolio (needs to



(week 8-9 during testing sessions)	designing virtual learning	evaluation questionnaire) Video conferencing Online resources (blogs, discussion links, illustrations, cases, other OER)	Reflection on activity 1 in discussion forum with international group Activity 1 output: each national student group presents summary of learning strategy identification at international discussion forum. Activity 2. Participation in an online lecture and visiting online resources classified according to multiple intelligence cases preparing learning scenario for national groups using multiple intelligence theory by Howard Gardener and online resources Activity 2 output: each national group presents group work result at international discussion forum.	tool Communication tools: video conferencing, video lecture recording, discussion forum, blogs Mind mapping Collaborative editing ...other to be precised later Evaluation tools	be discussed from the point of view of functions)
------------------------------------	----------------------------	--	--	---	---

Each activity should be marked using ECTS grading system, as well as overall portfolio assessment should be based on transferrable grades. For example:

TABLE 4. ECTS ASSESSMENT GRID IS USED FOR EVALUATION (AN EXAMPLE OF LITHUANIAN GRADES):

Lithuanian grade	Evaluation	ECTS grade
10	Excellent: outstanding performance with only minor mistakes	A
9	Very good: above the average standards, but with some errors	B
8	Good: generally sound work with number of notable errors	C
7-6	Satisfactory: fair but with significant shortcomings	D
5*	Sufficient: performance meet the minimum criteria	E
4	Very weak: Considerable further work is required	F/FX
3	UNSATISFACTORY	F/FX
2	BAD	F/FX
1	UNFAIR BEHAVIOR OR FAILURE TO APPEAR FOR EVALUATION	F/FX



If TVM is **bilateral**, instead of **multilateral**, preparation should be simpler, as no more than 2 parties are involved. In this case, teachers, with consent of their study program committees and institutions, do all the planning among themselves (if more than one teacher from one institution participants, adequately, home – institutions share teacher responsibilities first, and then agree on international exchange).

Curriculum design for bilateral or multilateral SVM

Curriculum design for SVM is much more common practice among HEIs and teachers due to already existing Erasmus and other exchange practices. The only difference in VM mode is that curriculum should be ready for virtual exchange, most probably combining international student groups who are visiting host institution physically with virtual mobility students from two or more HEIs.

As indicated previously, multilateral SVM with one host institution does not bring administrative challenges. Students are registered at host institution for an agreed period of studies.

In order to prepare for bilateral or multilateral SVM, the following curriculum design decisions should be taken at the host institution:

- which learning outcomes will be available for SVM
- how many credits will these learning outcomes correspond to
- how many students can build international student groups
- how will international student groups be built, taking into consideration that participants are students on physical visits, as well as virtual visits
- what is the schedule of synchronous and asynchronous communication
- what are the tools for synchronous and asynchronous communication
- which learning methods will be used in VM (active learning, group work, etc.)
- how many activities and learning resources should be distributed consistently among study subject milestones (weeks, months)
- how synchronous and asynchronous communication will be ensured between teachers and among students
- what networking tools are available for students and their artefact publishing
- what assessment methods and criteria will be used
- how different student identification is ensured at host institution (login to virtual learning environment and other infrastructure tools)
- how technical support will be provided for students
- how pedagogical support will be provided for students
- how students will exchange cultural aspects being on VM



Curriculum design for dual-mode virtual exchange: TVM & SVM

When the decision is accepted at HEI(s) that SVM will be enriched with TVM, pre-arrangements need to be made as described in VM Decision phase. Concerning curriculum designing, special attention should be taken to group composition and to interaction of students and teachers, as well as assessment methods to be used.

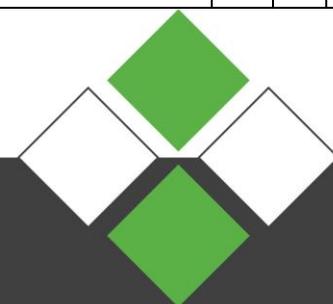
In order to prepare dual – mode virtual exchange (TVM + SVM) from multilateral institutions (which is more complex than bilateral dual – mode exchange), the following curriculum designing solutions should be taken among participating teachers:

- which learning outcomes will be shared between/ among participating teachers
- which learning outcomes will be available for SVM for all groups and all individuals
- how many credits will these learning outcomes correspond to
- how many students can build international student groups
- how international student groups will be built, taking into consideration that participants are students on physical visits, as well as virtual visits
- how teachers will share schedule time to organize VM within one/ more than one study subject
- what is the schedule of synchronous and asynchronous communication
- what are the tools for synchronous and asynchronous communication
- which learning methods will be used in VM (active learning, group work, etc.)
- how many activities and learning resources should be distributed consistently among study subject milestones (weeks, months)
- how synchronous and asynchronous communication will be ensured between teachers and among students
- what networking tools are available for students and their artefact publishing
- what assessment methods and criteria will be used
- bilateral/ multilateral teacher – designed curriculum should be peer reviewed before SVM
- which and how many institutions participate in VM curriculum designing (for multilateral TVM and SVM)
- how technical support will be provided for teachers and students
- which technical infrastructure will be used and how teachers will be identified there as users of the technical infrastructure
- how different student identification is ensured at host institution (login to virtual learning environment and other infrastructure tools)
- how pedagogical support will be provided for students
- how students and teachers will exchange cultural aspects being on VM



TABLE 5. REFERENCE ITEMS FOR HEI TO MEET QUALITY REQUIREMENTS AND STEPS NEEDED DURING CURRICULUM DESIGNING PHASE.

1. No. (+VM Quality criteria referenc e)	2. VM feature	3. Description	4. TVM		5. SVM	
			Bilateral	Multilateral	Bilateral	Multilateral
2.1.	International student groups	Curriculum designing should allow international student group collaboration, moderation and assessment	O	O	M	M
2.1.1.	<i>Curriculum should be based on group work, focusing on internationalization.</i>	<i>Group work and international activities are the key learning methods and are designed to illustrate the competences described in learning outcomes.</i>	O	O	M	M
2.1.2.	<i>Group work should be focused on tangible results, such as group artefacts (project work, presentations, user content generation, etc.)</i>	<i>Group artefacts are clearly described, and groups are explained what expectation to artefacts exist, and how they should be presented.</i>	O	O	M	M
2.1.3. (3-3)	<i>Curriculum should make the best use of intercultural and academic exchange of international student groups, taking into consideration linguistic, geographical, cultural insights and make available open learning resources for virtual exchange</i>	<i>At least some learning activities designed should include linguistic, geographical, cultural insights and make available open learning resources for virtual exchange.</i>	M	M	M	M
2.1.4. (12-1)	<i>Equal participation, easy access and equal contributions should be pre-planned in the curriculum taken into consideration cultural differences</i>	<i>Cultural and national coordinators from local context and HEIs should review the curriculum to ensure that this requirement is met.</i>	M	M	M	M
2.1.5.	<i>Curriculum designers and authors should ensure academic and ethical standards to avoid any kind of discrimination or culture stereotypes.</i>	<i>Curriculum should be reviewed and confirmed by all participating HEIs. If stereotyping and/or cultural discrimination is not among quality assurance requirements, notices should be provided by peer institutions.</i>	M	M	M	M
2.1.6. (1-1 4-1 4-3)	<i>International student groups should implement the tasks which demonstrate the achievement of curriculum learning results.</i>	<i>Students should work in international mixed student groups.</i>	M	M	M	M
2.1.7. (14-2)	<i>Diversity of learning groups is fully exploited as a learning result.</i>	<i>Learning results which are not described in the study subject, but which are achieved during international learning, should be recognised.</i>	M	M	M	M
2.1.8.	<i>There are clear instructions on how many students compose one international student group and how these groups can be built</i>	<i>Teachers should agree prior to VM sessions on the size of the groups.</i>	M	M	M	M



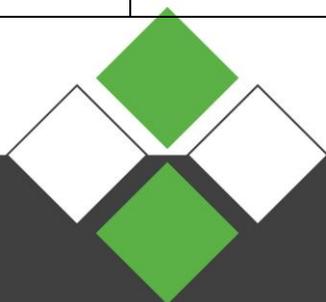
1. No. (+VM Quality criteria reference)	2. VM feature	3. Description	4. TVM		5. SVM	
			Bilateral	Multilateral	Bilateral	Multilateral
2.2.	Interactivity and communication		M	M	M	M
2.2.1. (19-1)	Intensive country to country interaction is well pre-planned in the curriculum.	Tasks and activities require students to communicate actively in international groups to implement a task.	M	M	M	M
2.2.2. (2-3)	Means and strategies to different specific – needs groups (people with disabilities, people with organizational difficulties (family constraints, time, etc.)) are ensured	All the disadvantaged participants should receive adequate support.	M	M	M	M
2.2.3.	Participants have a possibility to interact on all curriculum constituents, to contribute and improve them	Students are enabled to discuss the curriculum and to contribute to the curriculum theoretical material and/or sometimes to learning and/or assessment strategy.	M	M	M	M
2.2.4.	All participants are competent for communication and interactive learning or have a possibility to gain additional skills prior to interactive learning	Participation requirements are clearly indicated for potential learners in advance.	M	M	M	M
2.2.5. (14-1)	Respect for diversity and interculturalism is inspired by curriculum design and day-to-day communication	Curriculum and teachers emphasize diversity and inter-cultural importance.	M	M	M	M
2.2.6. (3-2 3-3)	Communication strategies identify new perspectives and new objectives of learning, and helps to achieve innovative results	Communication strategies ensure the measurement of contribution and non-formal learning result identification.	O	O	O	O
2.2.7.	There are clear plans and guidelines how synchronous and asynchronous communication will be ensured between teachers and among students	Communication is planned and announced.	M	M	M	M
2.2.8. (19-2)	Comparative analysis and joint working results are evident outcomes of intercultural group interactions	Tracking systems allow getting and comparing learning contributions.	M	M	M	M
2.3.	International Teaching Group	Participating teachers should belong to institutions of different countries in order to guarantee that different national and cultural perspectives are made available to the learners	M	M	O	O
2.3.1.	Curriculum learning outcomes are shared among participating	All participating teachers share learning outcomes and moderate learning activities consistently pre-	M	M	O	O



1. No. (+VM Quality criteria reference)	2. VM feature	3. Description	4. TVM		5. SVM	
			Bilateral	Multilateral	Bilateral	Multilateral
	international teaching groups and allow teaching exchange	planned to achieve learning outcomes.				
2.3.2.	Curriculum guidelines are establish to design equally distributed learning hours and learning resources	Learning hours and learning resources are harmonized.	M	M	M	M
2.3.3.	There is clear guidance for international curriculum designing groups on how many activities and learning resources should be distributed consistently among study subject milestones (weeks, months)	Learning outcomes are distributed into consistent and measurable learning activities on equal terms.	M	M	M	M
2.3.4.	ECTS are assigned for learning hours	ECTS are assigned for learning hours	M	M	M	M
2.3.5.	The curriculum has clear guidance on the distribution of the teaching schedule among different teachers in an international teaching group	The learning schedule clearly indicates which HEI and which teacher moderates learning: which week it is, which learning activities have to be implemented, how artefacts should be presented, etc.	M	M	M	M
2.3.6.	There are clear guidelines what assessment methods and criteria will be used		M	M	M	M
2.3.7.	Bilaterally/ multilaterally teacher – designed curriculum should be peer reviewed before SVM	All participating teachers and HEI review curriculum before VM implementation.	M	M	M	M
2.4.	Appropriate technological solutions					
2.4.1.	Proper and up-to-date technological solutions are offered and implemented by hosting institution(s) to meet didactical requirements of VM	Teachers define learning activities, and technological support centres offer and implement VM curriculum.	M	M	M	M
2.4.2. (15-1)	Virtual learning environment is fully functional and supportive to the learning process and cultural exchange	Virtual learning environment is fully functional and supportive to the learning process and cultural exchange	M	M	M	M
2.4.5.	Curriculum guidelines clearly indicate technical support available for all participants (a dedicated unit for curriculum designing and VM organization)	Technical support unit is available in teach institution and is publicly identifiable.	M	M	M	M
2.4.6.	Curriculum technological solutions allow closed and open communication using all types of networking and exchange	Technological solutions allow publishing resources in both, opened, and closed areas.	M	M	M	M



1. No. (+VM Quality criteria reference)	2. VM feature	3. Description	4. TVM		5. SVM	
			Bilateral	Multilateral	Bilateral	Multilateral
2.4.7. (11-1)	Curriculum design is supported and documented by professionally developed learning resources	Learning resources are validated by teachers.	M	M	M	M
2.4.8. (11-2)	User generated content is allocated, classified and made available to be presented to future learners	User generated content is suggested either activities designed or learner groups are inspired to create and share content as user generated.	O	O	O	O
2.4.9. (7-2)	Technological solutions allow transference of curriculum to large scale VM	VM curriculum can easily be transferred to other tools and infrastructures.	M	M	M	M
2.4.10. (7-4)	Technological solutions allow to ensure sustainability of learning records and their use in the future	HEI ensure saving learning records for future needs.	M	M	M	M
2.4.11. (8-1)	Technological solutions are integrated with usual academic environments used by host institution	Hosting institution integrates VM students into their own learning environments.	M	M	M	M
2.4.12. (10-2)	Chosen technologies do not bring new barriers to learner and teacher competences to use them, but are largely used and/ or provide a user – friendly user guide	Technologies are recognised and are used frequently by participants.	M	M	M	M
2.5.	Joint choice of the subject to be studied through VM	The joint choice of the subjects to be studied through VM and the design of the learning approach should reflect a clear perception of the advantages that a multi-country, multi-cultural and broadly comparative approach may bring to the students. Examples such as comparative literature, important policy and social issues (in general all address issues related to the well-being of the population) may well illustrate fields in which the value added of a multi-country and an intercultural perspective of VM is considerable.	O	O	O	O
2.5.1.	Curriculum designers search and ensure joint choice of the subjects to be studied for all international groups of students	The majority of students choose a curriculum available for learning.	O	O	O	O
2.6.	Joint curricula design	This element adds enormous value in terms of reciprocity and mutual benefits in the relationship among participating HEIs, avoiding the possible inconvenience of having a leading HEI providing the conceptual and scientific strength to the	M	M	O	O



1. No. (+VM Quality criteria reference)	2. VM feature	3. Description	4. TVM		5. SVM	
			Bilateral	Multilateral	Bilateral	Multilateral
		teaching/ learning programme and the partner HEIs assuming a mere teaching and local support role. This point is particularly delicate when HEIs of differently developed continents are involved as partners.				
2.6.1.	Teachers and participating institutions share learning outcomes and develop learning resources jointly	The correct identification of complementarities between HEIs and partners promotes a sense of a shared goal with shared responsibilities and outcomes.	O	M	O	O
2.7.	Joint production of learning resources		O	M	O	O
2.7.1. (11-3)	Joint production of learning resources is common practice of teachers at different institutions	Teachers are motivated to produce learning resources for all kinds of studies at HEIs.	O	M	O	O
2.7.2.	Teachers produce learning resources and then combine them for joint curriculum	Teachers produce learning resources and then combine them for joint curriculum	O	M	O	O
2.7.3. (11-4)	Learning resources reflect multicultural balance and are not nationally biased	Learning resources are with international references.	M	M	M	M
2.7.4.	Learners are involved in joint resource production or search and adaptation for intercultural learning and interactivity	Learners are involved in joint resource production or search and adaptation for intercultural learning and interactivity	M	M	M	M
2.8.	Joint titles	Although not a necessary element in VM from a theoretical and methodological perspective, the agreement - among the participating institutions - to deliver a joint certificate at the end of the programme acts as a powerful motivation factor which allows participants to credit the virtual mobility experience as a fully recognised part of an academic or training experience and achievement.	O	O	O	O
2.8.1.	Joint title curriculum designing is based on identical learning outcomes in all participation institutions	Curriculum is based on identical learning outcomes in all institutions on the subject level.	M	M	M	M
2.8.2.	Learning methods differentiate and vary in participating institutions, with respect to equal ECTS hours	Teachers from different HEIs can use different learning resources and learning methods.	O	O	O	O
2.8.3. (13-1)	All participating institutions have clear policies and rules for joint study programs and joint titles	All HEIs have regulations and orders on joint study programs.	M	M	M	M



1. No. (+VM Quality criteria reference)	2. VM feature	3. Description	4. TVM		5. SVM	
			Bilateral	Multilateral	Bilateral	Multilateral
2.9.	Mutual confidence relationship	<p>Last but not least, the mutual confidence relationship has a fundamental role in VM experiences. This feature is one of the most powerful elements when trying to establish a successful VM experience.</p> <p>It is an intangible but powerful element that strengthens all other VM features and enables the activation of HEI unaware resources and potentialities that could benefit VM further development. Mutual information openness and transparency with regards to different missions and performance of HEIs are then the capstone of this peculiar component.</p>	M	M	M	M
2.9.1. (16-2)	<i>IPR management and code of practice is in place and ensured in curriculum designing</i>	<i>HEIs use IPR management and code of practice, and they have regulations and assign responsibilities for problematic use of these.</i>	M	M	M	M
2.10.	Resources and support		M	M	M	M
2.10.1.	<i>Administration support motivates design curriculum for intercultural VM exchange</i>	Administration discusses resources needed for VM and ensures their availability.	M	M	M	M
2.10.2.	<i>Economic tools are in place and support teacher motivation to design international VM practices</i>	Administration discusses resources needed for VM and ensures their availability.	M	M	M	M
2.10.3.	<i>A dedicated technological support unit for curriculum designing is available during and after curriculum designing</i>	<i>HEI has technological support unit clearly identifiable and open for support.</i>	M	M	M	M



Phase 3. VM organization and communication

Before the start of a VM process, a self-check for preparedness is necessary, i.e. whether the above detailed phases are implemented and whether the institution is ready to start the process.

VM organization and communication phase can be divided into two steps:

- (1) preparation for virtual mobility organization, and
- (2) course/program delivery.

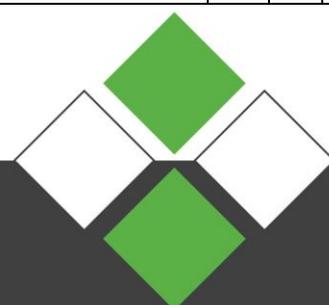
Step 1 covers marketing of the VM offer, identification of VM participants, planning the schedule (semester and synchronous interaction dates) and first interaction/virtual meeting date.

Step 2 covers participants' registration, as well as communication and support systems' identification and application.

Appropriate technological solutions have to be chosen already during the curriculum design phase, however, additional technologies may also be selected during this phase, depending on the course or program learning objectives.

TABLE 1. REFERENCE ITEMS FOR HEI TO MEET QUALITY REQUIREMENTS AND STEPS NEEDED DURING VM ORGANIZATION AND COMMUNICATION PHASE.

1. No. (+VM Quality criteria reference)	2. VM feature	3. Description	4. TVM		5. SVM	
			Bilateral	Multilateral	Bilateral	Multilateral
3.1.	International student groups	For the intercultural experience, international student groups should participate in the course/programme. Depending on the number of students and course length, for better intercultural experience of students international sub-groups may be formed before, in the beginning or during the course.	O	O	M	M
3.1.1. (2-1 19-1)	<i>Different strategies for course promotion/marketing might be used to attract different categories of potential users, including those with physical, social or economic constraints</i>	<i>To reach a diversity of international groups in the course, different marketing solutions and different information addressing certain target groups may be used. Maximum number of students per country might be assigned in order to make the students groups more diverse.</i>	M	M	M	M
3.1.2. (2-3 5-2)	<i>Schedule of meetings and activities is announced and implemented</i>	<i>Planning the time and dates for synchronous meetings, time zone differences and national holidays of different countries have to be taken into</i>	M	M	M	M



1. No. (+VM Quality criteria referenc e)	2. VM feature	3. Description	4. TVM		5. SVM	
			Bilateral	Multilateral	Bilateral	Multilateral
		account. Attention to improve cost-efficiency should be constantly paid.				
3.1.3.	International student groups have clear information about pedagogical and technological support and facilitation	It is clear for students who the persons are who provide pedagogical and technological support.	M	M	M	M
3.1.4.	International student groups are recorded in host institution student records and affiliated academic departments provide regular academic support for them	Certain contact persons and their contact information have to be provided for students	M	M	M	M
3.2.	Interactivity and communication					
3.2.1.	Frequent synchronous meetings are planned to support interactivity and communication, along with the learning process	Regular virtual meetings (enabled via video/web-conferences of other technical solutions) should be planned to enable and support student-teacher communication and interactivity	M	M	M	M
3.2.2.	Asynchronous communication is ensured using technological solutions, which schedule is clearly announced for participants	Forums or mailing list may be created for student-teacher communication. Intensity of teacher involvement (i.e. frequency of answers to questions of comments) should be stated for all participants in advance.	M	M	M	M
3.2.3.	Learners are supported by technical staff and teachers to ensure accessibility to interactivity	Students who have problems to use either tools for interaction, or have other kind of need for support, know teachers and technical people who can help them.	M	M	M	M
3.2.4.	Interactivity and communication strategy ensures interaction among all participants	Interactivity and communication strategy is chosen during the curriculum design phase, where the intensity is also planned. However the all participants' interaction may be ensured suggesting and facilitating the appropriate technological solutions.	M	M	M	M
3.2.5.	Any changes to the initial schedule, tools or resources, as well as any technical problems allow sharing of information at an online virtual learning environment, as well as via help-desk	Teachers agree that all changes to the initial schedule are announced at online virtual learning environment.	M	M	M	M
3.2.6. (19)	Intensive country-to-country interaction is ensured	Communication possibilities should be suggested and agreed upon between students and teachers in	M	M	M	M



1. No. (+VM Quality criteria reference)	2. VM feature	3. Description	4. TVM		5. SVM	
			Bilateral	Multilateral	Bilateral	Multilateral
		the beginning of the exchange. For intensive country-to-country interaction, international and national student groups and their activities may be foreseen in the curriculum design phase and implemented before, during or after the exchange. Different video-conferencing solutions or interactive discussions may also be organized.				
3.2.7.	International communication is based on the language(s) agreed and ensures language diversity for cultural exchange, and one common language for academic exchange	The language for learning content and resources, student-student and student-teacher(s) communication may be different and depends on the VM scenario chosen during the decision making phase, however one common language is necessary for virtual, course/curriculum delivery.	M	M	M	M
3.3.	International Teaching Group	Course or programme delivering teachers have to be involved already in the 2nd phase (curriculum design). However tutor at student home organization may also be assigned in VM organization and communication stage during preparation activities.				
3.3.1.	International teaching groups have a closed area for exchange, problem solving and interaction	In the case of 2 or more teachers' participation in virtual mobility activities, there should be some tools suggested for teacher-teacher interaction. The communication may be synchronous or asynchronous, its intensity may depend on the need, but the opportunities for teachers to interact have to be created	O	M	O	O
3.3.2.	There is a clear schedule for international exchange, teacher roles and responsibilities	The clear schedule for teacher responsibilities and timing is necessary for all process sustainability and effectiveness. It also has to be clearly communicated and available for students anytime.	M	M	M	M
3.3.3.	International teaching groups are recorded in academic records at host institution and affiliated academic departments provide support for them on a regular basis	In order for teacher virtual mobility to be recognized, their record at the home and host institution should be implemented.	M	M	M	M
3.4. (5-2)	Appropriate technological solutions	Decisions on synchronous and asynchronous communication tools depend on participant organizations technical solutions available, however they have to be up to date and confirm				



1. No. (+VM Quality criteria reference)	2. VM feature	3. Description	4. TVM		5. SVM	
			Bilateral	Multilateral	Bilateral	Multilateral
		to cost-effectiveness of involved institutions. The technological solutions for first virtual meetings should be suggested before virtual mobility starts. Video/web-conferencing technologies may be used for the communication purpose, while a virtual learning environment is an appropriate tool for learning process organization, feedback and evaluation.				
3.4.1 (15)	Virtual learning environment and other integrated technological solutions allow all VM exchange didactical and cultural exchange scenarios	Decision on the technological solutions for content delivery are already taken during curriculum design phase and respond to fully functional and supportive learning process, organised according to VM principles. Registration to virtual learning environment procedure should be discussed between IT responsible department and the learners should be represented with the simple and informative user registration details.	M	M	M	M
3.4.2. (9-3)	Staff competence to use ICT for communication and learning purposes is ensured	The selection of appropriate technological solutions should respond to the competences of teachers and tutors to use certain technologies in communication and learning process	M	M	M	M
3.4.3. (12-1, 10-2.)	Learners competence and possibilities to use ICT should be adequate to support communication and learning	The selection of appropriate technological solutions should correspond to easy access of well stated communication infrastructure to all learners in all international locations	M	M	M	M
3.4.4.	Organizational adjustments are made upon the need	In order to make use of the virtual mobility possibilities some organizational issues may be solved during all implementation process.	M	M	M	M
3.4.5. (6-2)	Schedule adjustments are implemented upon the need	Schedule of the planned virtual meetings or activities deadlines may be revised after the student groups are constant, reflecting on the national holidays or differences in time zones. Received feedback may be used for better achievement of objectives.	M	M	M	M
3.4.6. (1-2, 4-3.)	Process monitoring	Process effectiveness and assurance of internal coherence of process components should be also aimed. Monitoring activities organization may be implemented.	M	M	M	M



1. No. (+VM Quality criteria reference)	2. VM feature	3. Description	4. TVM		5. SVM	
			Bilateral	Multilateral	Bilateral	Multilateral
3.5.	Joint choice of the subject to be studied through					
3.5.1.	<i>If joint subjects are available in cooperating institutions, students should be offered these for selection</i>	<i>If the cooperating institutions have several subjects prepared for VM, they all should be offered to students.</i>	O	O	O	O
3.6.	Joint production of learning resources		M	M	M	M
3.6.1.	<i>All participating students and teachers are encouraged to jointly produce new learning resources during VM exchange</i>	<i>New learning resources, produced during virtual mobility exchange are meant for more cultural diversity aspects and their presentation</i>	O	O	O	O
3.6.2.	<i>Jointly produced learning resources are recorded and collected, and are available for future learning and exchange needs</i>	<i>The possibility to use the records of international students and teachers groups are a valuable resource for future virtual mobility activities</i>	M	M	M	M
3.7.	Mutual confidence relationships					
3.7.1.	<i>IPR and copyright issues are in place for all learning resources and contributions</i>	<i>During the VM organization and communication phase, IPR and copyright issues are addressed while creating new learning resources or jointly producing them and/or their records</i>	M	M	M	M
3.7.2.	<i>All participants are encouraged to share their learning (un)success and immediate actions are ensured to tackle individual and group problems</i>	<i>Students are encouraged to ask for any kind of help and to address coordinators with the critics about learning process or individual problems.</i>	M	M	M	M
3.7.3.	<i>A help desk provides the opportunity to give instant feedback in case of emerging interpersonal or communication problems.</i>	<i>The possibility to influence the process for students is important and provides more motivation for active engagements</i>	M	M	M	M
3.8	Support provision	Pedagogical, administrative and technical support contacts are necessary for learners and teachers during the curriculum delivery	M	M	M	M
3.8.1. (8-2)	<i>VM activities are supported by administrative integration of academic departments</i>	<i>Although virtual mobility should be integrated in several institution departments, certain organizational unit(s) should be identified by participants for technical or administrative support.</i>	M	M	M	M
3.8.2. (12-2)	<i>Technical assistance is available and is provided upon the need to all participants</i>	<i>Technical assistance should be easily available for students and teachers in all participating institutions. Different forms for reaching the unit may be chosen, however information about it should be easily found.</i>	M	M	M	M



1. No. (+VM Quality criteria reference)	2. VM feature	3. Description	4. TVM		5. SVM	
			Bilateral	Multilateral	Bilateral	Multilateral
3.8.3. (5-1)	Adequate human and other resources are employed to meet VM exchange needs and results	HEI discuss the coordinating and supporting unit needs and ensure these resources to implement VM.	M	M	M	M

Phase 4. Assessment and feedback

There are several different aspects of this VM process phase to be discussed – evaluation of learning outcomes that is very related with the assessment strategy of curriculum designed, assessment of VM course/ program, and feedback possibilities. Revising VM quality criteria and features, the aspects mentioned are presented in the table below.

TABLE 2. REFERENCE ITEMS FOR HEI TO MEET QUALITY REQUIREMENTS AND STEPS NEEDED DURING VM ASSESSMENT AND FEEDBACK PHASE

1. No. (+VM Quality criteria reference)	2. VM feature	3. Description	4. TVM		5. SVM	
			Bilateral	Multilateral	Bilateral	Multilateral
4.1.	International student groups		M	M	M	M
4.1.1. (1-1 20-1)	The strategy of evaluation and assessment of learning results is clearly presented and explained for international student groups	Learning outcomes/results evaluation procedure depends on the curriculum and assessment strategies which are foreseen in curriculum designing. It should be clearly explained and negotiated with students, and applied during or after the course/curriculum delivery.	M	M	M	M
4.1.2. (3-1)	Additional skills and competences achieved during international VM are recognised as innovative results and encouraged during grading	Skills and competences which are not indicated among learning outcomes should be recognised.	M	M	M	M
4.1.3. (19-2)	Individual group contributions are taken into consideration during group work assessment	Technologies enable monitoring and tracking individual contributions of group members. Assessment methods also allow measurement of individual contributions.	M	M	M	M



1. No. (+VM Quality criteria reference)	2. VM feature	3. Description	4. TVM		5. SVM	
			Bilateral	Multilateral	Bilateral	Multilateral
4.2.	Interactivity and Communication					
4.2.1. (10-1)	Learners have competences and aptitudes to respect diversity and interculturalism, as well as tolerance and culture	Learner competences for intercultural communication are recognised.	M	M	M	M
4.2.2. (20-3)	Feedback from learners on their learning process is constantly asked and collected	Teachers and local HEIs implement feedback and provide anonymous feedback tools for learners to track learning process and ensure equal participation.	M	M	M	M
4.2.3. (6-2)	Feedback is used to improve VM exchange	Feedback data is analysed and VM improvement is based on these.	M	M	M	M
4.3.	International teaching groups					
4.3.1.	International groups of teachers agree on the learning result assessment strategy and refer to it unanimously	International groups of teachers agree on the learning result assessment strategy and refer to it unanimously	M	M	M	M
4.3.2.	International groups of teachers are ready to combine learner results achieved and to provide overall grade and recognise it for overall learning in a subject settings	International groups of teachers are ready to combine learner results achieved and to provide overall grade and recognise it for overall learning in a subject settings	M	M	M	M
4.3.3.	All teachers keep to similar criteria description for task assessment	All teachers keep to similar criteria description for task assessment	M	M	M	M
4.4.	Appropriate technological solutions					
4.4.1.	Technological solutions allow grading on the basis of criteria and feedback provision, which is immediately sent to individual learner or each group member	Technological solutions allow grading on the basis of criteria and feedback provision, which is immediately sent to individual learner or each group member	M	M	M	M
4.4.2.	Technological solutions allow the choice of assignment submitting	Technological solutions allow the choice of assignment submitting	M	M	M	M
4.4.3.	Technological solutions allow user tracking in order to monitor attendance and ensure timely help and feedback	Technological solutions allow user tracking in order to monitor attendance and ensure timely help and feedback	M	M	M	M
4.4.4. (14-1 20-2)	Technological solutions allow anonymous assessment of the course/ programme, as well as feedback to teachers and other participants	Assessment of the VM course and programme may be based on feedback by the participants or evaluation of external experts.	M	M	M	M



1. No. (+VM Quality criteria reference)	2. VM feature	3. Description	4. TVM		5. SVM	
			Bilateral	Multilateral	Bilateral	Multilateral
4.4.5. (20-4)	Use of the evaluation results in the overall improvement process is documented by proper technological solutions	Use of the evaluation results in the overall improvement process is documented by proper technological solutions	M	M	M	M
4.4.6.	Feedback on IT solutions is collected and used to improve them in the future exchange	Feedback on IT solutions is useful when analysing all participating countries impressions and suggestions.	M	M	M	M
4.5.	Joint production of learning resources					
4.5.1.	All jointly produced resources are validated in terms of context and academic requirements for later use	All jointly produced resources are validated in terms of context and academic requirements for later use.	M	M	M	M
4.5.2.	Participants are motivated to jointly produce learning resources by means of grading or feedback	Participants are motivated to jointly produce learning resources by means of grading or feedback	M	M	M	M

Phase 5. Certification and recognition

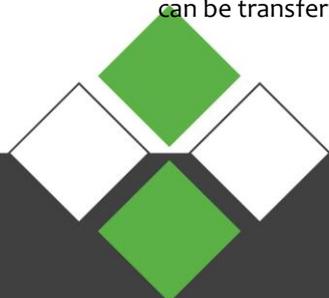
All the students and teachers who have participated in a VM exchange should receive certification and recognition for their professional and academic activities. In order to achieve that, they should be within the academic records at the hosting HEI.

As already described in the Decision phase, institutional agreements, student/teacher application forms for VM and their record in the list of a host institution ensure credit transfer and recognition of VM exchange after it. Multilateral student VM is the most complex scenario in this case, as student records in multiple institutions should be taken special attention and care, and might require very good planning and administration.

After TVM or SVM exchange, academic departments should issue an academic certificate previously agreed with participating (home/ sending) institutions and should provide study subjects (titles and learning outcomes), as well as teacher signature and ECTS gained at host institution, to be transferred and recognized at the home institution. For TVM, a similar academic certificate should be issued by the host institution/ department with the proof of the signature of the head of the academic department.

However, VM exchange should also be recognized in a larger perspective estimating participating institution(s) efforts and feedback collected from their participants, as well as ensuring the following VM quality criteria to be met:

- VM exchange implemented should be estimated what potential it has to be transferrable to other different contexts (7-1)
- recommendations and guidelines should be provided in the form of a scenario, indicating to what scale it can be transferred further on and to what contexts (7-2)



- decision makers and stakeholders should be able to visualize and understand the benefits achieved by the exchange (7-3)
- sustainability should be ensured by new inter-cultural collaboration and agreements (7-4)
- equilibrium and reciprocity are respected in all phases and especially in the final phase (17-1).

CONCLUSIONS AND RECOMMENDATIONS

This handbook provides quality criteria guidelines for the process of VM implementation. If HEIs wish to implement self-assessment about their preparedness for VM, Movinter self-assessment tools are available for this check, as well as institutional guidelines and kits designed during VMCOLAB project:

1. VM integration kit.
2. Student's guides to VM.
3. Piloting guidelines for service providers.
4. VMCOLAB Co-laboratory.
5. Policy recommendations.

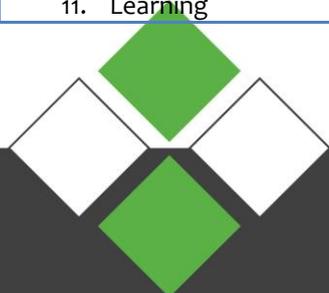
References

1. European Commission Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL establishing "ERASMUS FOR ALL". The Union Programme for Education, Training, Youth and Sport (2011). Brussels. Accessed on April 10, 2013 at http://ec.europa.eu/education/erasmus-for-all/doc/legal_en.pdf



TABLE 3. MOVINTER QUALITY CRITERIA AND INDICATORS.

8 GENERAL QUALITY CRITERIA		
Criteria	Indicators	
1. Effectiveness	1.1.	The project achieves the expecting learning results
	1.2.	The project achieves other objectives in term of institutional collaboration
2. Inclusiveness	2.1.	Means and strategies for reaching (promotion/marketing/information) different categories of potential users are in place
	2.2.	Means and strategies to allow people with disabilities to participate in the learning experience
	2.3.	Means and strategies to allow people with organisational difficulties (with family constraints, with work constraints) to participate
	2.4.	Different payment facilitation options for the course fee are operational
3. Innovation	3.1.	The project is innovative in its aims and approach
	3.2.	The project achieves innovative results
	3.3.	The project identifies new objectives/perspectives in the course of its development
4. Coherence	4.1.	Coherence of the didactic strategy with course objectives
	4.2.	Coherence of the project with the context
	4.3.	Internal coherence of project components (organisation, didactics, technology, institutional collaboration, cultural approach etc.)
5. Efficiency	5.1.	Results are satisfactory in relation to resources employed
	5.2.	Attention is constantly paid to improve cost-efficiency
6. Responsiveness to feedback	6.1.	Capacity to collect feedback from all project stakeholders is observable
	6.2.	Feedback is constantly utilized to modify the project element affected
7. Sustainability	7.1.	The project has high potential to be transferable in different contexts
	7.2.	The project has high potential to be reproduced in a larger scale
	7.3.	The project has achieved high visibility to decision makers
	7.4.	The project has planned to become sustainable in the next future
8. Integration	8.1.	VM activities are recognized has integral part of academic activity
	8.2.	An organizational unit of VM activity is identifiable within partner institutions
12 SPECIFIC QUALITY CRITERIA		
Criteria	Indicators	
9. Staff competence	9.1.	Project leaders, teachers and tutors are competent on how to extract the potential of VM
	9.2.	Project leaders, teachers and tutors are competent on intercultural communication
	9.3.	Project leaders, teachers and tutors are competent to use ICT for communication and learning purposes
10. Learners competence	10.1.	Learners have competences and aptitudes respect for diversity and interculturalism are part of student groups attitude toward each other
	10.2.	Learners are competent in the use of CT to support communication and learning
	10.3.	Learners are able to communicate in language (s) adopted in the VM project
11. Learning	11.1.	Programmes are documented and supported by professionally developed



resources		learning resources
	11.2.	UGC (user generated content) is collected, classified and made available to present and future learners
	11.3.	Joint resources development is common practice among teachers of different countries/institutions
	11.4.	Learning resource reflect multicultural balance and are not nationally 'biased'
12. ICT Infrastructure	12.1.	Easy access well stated communication infrastructure is guaranteed to all learners in all international locations
	12.2.	Technical assistance is easily available in all participating institutions
13. Institutional competence	13.1.	The institution has a clear policy for joint programmes and (eventually) for joint titles
	13.2.	The International relation by rectorate/office is supportive of VM and helps integrating it in the overall international relation function as a partnership-building option
	13.3.	The ICT department is systematically involved in VM project
14. Cultural setting	14.1.	Respect for diversity and interculturalism is inspired by design, implementation, and evaluation of study programme and day-to-day communication
	14.2.	Diversity among context is fully exploited as a learning resource
15. Learning environment	15.1.	The local and virtual learning environment are fully functional and supportive to the learning process organised according to VM principles
16. Compliance to norms and regulations	16.1.	Compliance with existing norms and regulations is fully implemented
	16.2.	Specific code of practice or IPR management in VM is in place
17. Equilibrium reciprocity	17.1.	Equilibrium and reciprocity are respected in all phases of project development (decision making, designing, implementation, evaluation, accreditation)
18. Mutual confidence relationship	18.1.	Processes and results indicate the existence of a mutual confidence relationship
	18.2.	Partnership agreement among partners institutions exists, is publicly accessible and is well known by all stakeholders involved
19. Intercultural interaction among student groups	19.1.	Intensive country-to-country interaction
	19.2.	Presence of comparative analysis activities and joint work results
20. Project evaluation (learners satisfaction)	20.1.	Identification of the evaluation objectives, objects and source is clear
	20.2.	Procedures and tools for monitoring and reviewing the systems are implemented
	20.3.	Student's feedback on the services and on the course is requested and regularly collected and utilized
	20.4.	Use of the evaluation results in the overall improvement process is documented

