



# PETRUS-II PROJECT

Deliverable n° 2.4

## Self-evaluation report

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Author(s): Jussi LEVEINEN

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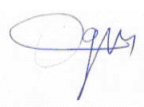
### **ABSTRACT:**

The work package 2 of the Petrus III-project aims to delineate a pathway for the obtainment of a Master degree with recognition agreements from other partners. Besides formal academic training, the professional development is aimed to include vocational training in companies and organizations relevant to nuclear waste management. This can be achieved by developing a mutually recognised system how the participating institutions of higher education could accept the learning outcomes obtained either by academic or vocational training as a part of the MS-degrees they offer. The key objectives of WP 2 of the Petrus III-project is to produce the documentation needed for the implementation of the program in at least one of the partner universities.

The quality control and assurance is today an essential part of any training program. Consequently, European institutes of higher education are developing their own QA/QC-systems and procedures as a part of the Bologna-process they have committed themselves. The audit schemes applied to examine the degree programmes as samples of the functioning of the university's quality system. Quality management of degree programmes is connected to and regulated by the university and school quality policies. Therefore, a joint Master's level educational or professional development program will avoid redundancy and repetition of quality work by trying to utilize existing processes implemented or currently being developed in partner universities. These procedures include also the self-evaluations and external audits. The self-evaluation should recognize these two levels of quality control.

Consequently a guiding document has been compiled including recommendations for the self-evaluation process of the degree programme quality management system, suggesting generic principles for carrying out good quality self-evaluation and provides a template for documentation. The document is largely based on similar document prepared in Aalto University.

## Signatures

	Name	Signature	Date
Prepared by	Jussi Leveinen		15/02/2016
Revised by			
Approved by:	Behrooz BAZARGAN SABET		22/02/2016

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## Abbreviations

<b>PD</b>	Professional development
<b>KSC</b>	Knowledge, skills and competences (attitudes)
<b>ECTS</b>	European Credit Transfer and Accumulation System
<b>ECVET</b>	European Credit system for Vocational Education and Training
<b>VAE</b>	Awarding academic credit for experience
<b>MoU</b>	memoranda of understanding
<b>ENQA</b>	European Network for Quality Assurance in Higher Education
<b>IAEA</b>	International Atomic Energy Association

<b>IGD-TP</b>	The European Technology Platform for Implementing Geological Disposal .
<b>CMET</b>	Working Group on the Competence Management, Educational and Training of IGD-TP

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## Introduction

The work package 2 of the Petrus III-project aims to delineate a pathway for the obtainment of a Master degree with recognition agreements from other partners. Besides formal academic training, the professional development is aimed to include vocational training in companies and organizations relevant to nuclear waste management. This can be achieved by developing a mutually recognised system how the participating institutions of higher education could accept the learning outcomes obtained either by academic or vocational training as a part of the MS-degrees they offer. The key objectives of WP 2 of the Petrus III-project is to produce the documentation needed for the implementation of the program in at least one of the partner universities.

### Generic principles for self-evaluation

The quality control and assurance is today an essential part of any training program. Consequently, European institutes of higher education are developing their own QA/QC-systems and procedures as a part of the Bologna-process they have committed themselves. The audit schemes applied to the degree programmes as examine them samples of the functioning of the university's quality system (As illustrated in Figure 1). Quality management of degree programmes is connected to and regulated by the university and school quality policies. Therefore, a joint Master's level educational or professional program will avoid redundancy and repetition of work by trying to utilize existing processes implemented or currently being developed in partner universities. These procedures include also the self-evaluations and external audits.

The self-evaluation should recognize these two levels of quality control:

1. The Petrus program specific quality assurance procedures to be agreed by the partner universities and institutes. These should cover the aspects shown in Figure 1. Furthermore, since these should take into account the fact that learning activities of the competence based program are not limited to formal academic training.
2. The university level quality control which can complement or partly replace the above by providing
  - a. relevant documentation of quality assessment of the university courses that will be included to the Petrus-program
  - b. descriptions of possible actions to be taken to improve the quality
  - c. provide verification that the QA/QC-program has been put in place and action in the partner university

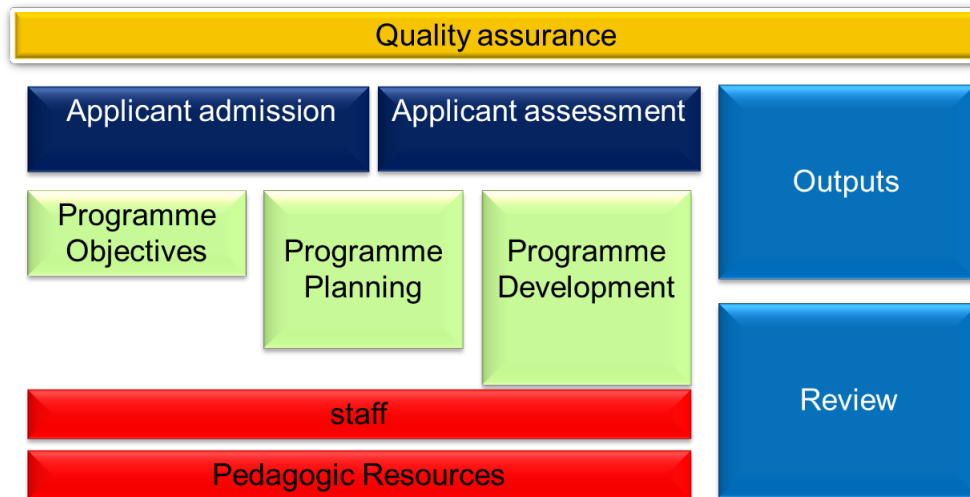


Figure 1. Illustration of the components to be covered by Quality assurance of an education program and its self-assessment.

External audits are also a part of the QA systems. An audit will review the processes and procedures used by the university to achieve its goals and assess how the feedback that the university receives and collects is used in planning and development. In the university level types select only some of the educational programs for a closer look based on some sampling criteria. Therefore, programs such as the planned Petrus-program are not necessarily selected as specific auditing targets. Therefore, organization of the audit at suitable time and repetition of it at few years' intervals should be an objective of the Petrus PD-program partnership. This guidance is largely based on the self-assessment guidance adopted in Aalto University, It therefore supports planning, carrying out and documenting self-evaluation based on the FINEEC<sup>1</sup> audit scheme requirements<sup>2</sup>. **The guide contains a recommendation for the self-evaluation process of the degree programme quality management system, suggests generic principles for carrying out good quality self-evaluation and provides a template for documentation** (starting from chapter 4).

In order to be effective the quality management procedures should comprise a rotary dynamic system encompassing analysis and planning, development and implementation, and evaluation/validation processes. The focus is on the planned quality management procedures that will be implemented as a part of such a rotary system. The document can be modified in the planning and implementation of the self-evaluation of the program. However, if any of the themes is not relevant or it is impossible to describe and evaluate, documentation the reasons for their exclusion will likely improve the next self-assessment cycles. Likewise, in case you notice that some element is missing in your quality system, it is recommended to write down that the shortcoming is recognized.

<sup>1</sup> Finnish Education Evaluation Centre FINEEC (former The Finnish Higher Education Evaluation Council, FINHEEC).

<sup>2</sup> FINHEEC Audit manual 2011-2017 (2nd edition), pp. 36-38

The self-evaluation focuses on the quality management procedures and system – not the quality of the programme. The target of self-evaluation and its different phases explained in Table 1 is the quality assurance and continuous development of quality procedures of the programme.

However, the self-evaluation of the Petrus PD-program should include a comparison how the quality management procedures are in accordance to those ones applied in the partner universities or institutes of higher education as a part of the Bologna-process implementation. Self-evaluation should consider possible requirements and procedures defined in the Memorandum of Understanding of the Petrus professional program's. Main focus is on the quality goals, knowledge of the current status of quality, development linked to objectives and evaluation outcomes.

Self-evaluation can support the degree programme directors to develop quality, procedures, structures and objectives of their programmes. Self-evaluation, when conducted with constructively self-critical attitude, usually provides useful new information about the strengths, assets, shortcomings and absent elements of the quality system. Any of those observations demonstrate the effectiveness of the quality system. Above all, the awareness of development needs is valuable in ensuring and improving the quality of activities.

**DIY (Do it yourself)** Self-evaluation is carried out by person(s) who are responsible for leading, planning, developing and teaching in the programme. Self-evaluation cannot be delegated to support or administrative personnel although they can be of assistance. Therefore, each universities providing education in the Petrus PD-program should indicate the person(s) carrying out the self-assessment of Petrus-program as well as people responsible to report on the relevant activities

**Viewing quality management procedures as system.** Quality management procedures may include a wide range of elements e.g. quantitative and qualitative goals, processes, definition of roles and responsibilities, management and leadership, methods, documents, forums, structures, data management, support services. It is important that those components are related to each other forming an interconnected and coherent system. In the Petrus program should be viewed as a system bringing together several partner universities. The self-evaluation should assess how the quality management procedures in partner universities are executed as well as how the specific Petrus PD's own quality framework is implemented.

**Goal based** Self-evaluation should be based on an existing quality framework shown in Figure 1 and educational goals in your specified areas and described in Deliverable 2.1 of Petrus III.. Goals should be clearly defined and documented. In the case of Petrus III project the goals can be obtained from the descriptions in the competence-based competence curriculum. There should be shared understanding of what they mean and require from different parties, structures and activities. It is important that the goals are known to all the relevant actors. Programme goals should be in line with school and university level goals. Programme goals should cover all relevant university and school level goals.

**PDCA (Plan-Do-Check-Act)** can be considered as a key principle for quality development. The quality system is an entity of policies, procedures and processes aimed at safeguarding and improving the quality of the university activities, its education, its research and other activities and it is embedded in university governance and should be built on the principle of continuous development This means existence of a regular time cycle and alignment between planning, actions, evaluation and follow up, and development. All these phases are aligned with the goals set

for the specific issue. Institutes committed to continuous development will take part in an external evaluation of their activities and quality assurance systems on a regular basis. Implementing this principle applying a joint annual cycle in the partner universities will be a difficult task due to differences in the course of academic years in different countries.

**Evidence-based.** Every claim and statement of quality shall be supported by evidence. Evidence shall be available to all relevant parties and to external auditors. Evidence may be policies, strategies, goals, procedures, processes, structures, feedback or other data derived from evaluations and follow-up procedures, actions, projects, process descriptions, annual workshops, discussion forums, guidelines, development discussions, resourcing decision, plans, etc.

**Self-critical** Self-criticality means that areas needing development are systematically identified. Self-evaluation is done with the similar critical attitude as research. Criticality means questioning presumptions and looking for facts and findings instead of relying on common beliefs or opinions of some individuals. Similarly it means that problems are not hidden or covered. On the contrary, the problems are openly discussed, and considered as departures of progress and solution finding. Tracing the shortcomings is an evidence of well-functioning quality system.

**Integrated** Self-evaluation should be integrated into existing quality procedures, management structures and activities. Self-evaluation should be led by those responsible for degree programme objectives, evaluation and development.

**Structured** University defines its own policies and procedures for quality work. Forthcoming FINEEC audit does not determine the framework, structure and policies of our quality system. Audit self-evaluation scheme is merely one analytical tool to look at a university’s quality system. Self-evaluation work generates a report based on audit requirements. The self-evaluation template that is provided in this guide fulfills those requirements..

**Participation of different stakeholders** is a crucial factor of successful quality system. Internal stakeholders are academic leaders, teachers, students, and service leaders and personnel in the school. External stakeholders can be for instance collaborative partners in industry, business, state, municipal, professional establishments, other higher education institutions or other relevant key stakeholders. Participation of students and external stakeholders during the self-evaluation contributes to a diversity of perspectives.

Table 1. Phases for the self-evaluation of the degree programme

	Phase	Actors	Documents / documentation
<b>Preparation</b>	<b>Description of quality system</b> The existing quality systems should be compiled.	Key quality actors (e.g. quality manager, head of school learning services, programme planner) in the partner university and for the PD-program should be defined.	E.g. School handbook, processes, quality criteria, evaluation plans, development tools.
<b>evaluation</b>	<b>Description of quality procedure of the programme</b>  Shortly describe how your quality management works in audit areas specified.	Descriptions made e.g. with heads of majors, teachers, study	Document the description on this



	<p>Some of the quality procedures are common to universities and their the schools and some are programme specific. There might also be some university level procedures relevant to enhancement of the quality of the programmes.</p> <p>. Use appendix A as guidance.</p>	<p>planners and other quality actors.</p> <p>Programme director is in charge of description</p>	<p>template (“Description” chapters 4.1., 5.1. &amp; 6.1.).</p>
	<p><b>Evaluation</b></p> <p>Assess the functioning, workload and impact of the procedures, as well as how different parties participate.</p> <p>Use appendix B as guidance.</p>	<p>Leader: Programme director.</p> <p>Participants: programme director, heads of majors, teachers, students, key quality actors, support personnel and relevant stakeholders.</p>	<p>Document the evaluation on this template (“Evaluation” chapters 4.2., 5.2. &amp; 6.2.).</p>
	<p><b>Summary</b></p> <p>The key strengths and areas in need of development.</p> <p>Current status of quality management procedures.</p> <p>Description of the implementation of the self-evaluation process.</p>	<p>Key quality actors (defined at the school) with programme director.</p>	<p>Chapters 7, 8, &amp; 9 of this template.</p>
<p><b>Submit</b></p>	<p><b>Submit report internally to your school and Petrus PD quality / development manager</b></p>		<p>Decided in the participating universities and PD-steering group</p>

## Degree programme overview

### ***Name of the programme***

Petrus PD-program/Joint MSc-program on Geological disposal of radioactive waste  
(To be decided)

### ***Programme management structure and the programme director (contact information)***

Prof N.N

Program structure to be agreed by the partners and described in MoU.

### ***Short description of the programme incl. goals of the programme***

The Petrus PD-program aims to prepare the student to achieve the knowledge, skills and competences relevant to the professional profiles and key occupational tasks of nuclear waste management sector. The competences will not be only domain-specific but include also generic (engineering) competencies such as attitude for life-long learning. The underlying theme of this PD-program are knowledge, skills and attitudes required to build up and maintain nuclear safety and safety culture.

These professional profiles and their key competences can be found at the Petrus III-project database.

Besides formal academic training, the professional development is commonly achieved by vocational training. Therefore, this project will enable utilization the European Credit System for Vocational Education and Training (ECVET) besides the European credit transfer and accumulation system (ECTS).

## Planning of the programme

### **Description**

Shortly describe how your quality management works in audit areas specified by FINEEC. The idea is not to describe exhaustively the details of the actual quality procedures, but refer to the document where the procedures are fully described. Example: If you have a rubric for thesis evaluation, you describe how it is used to ensure the quality of thesis evaluations. Refer to the actual rubric documented elsewhere.

You may find out that some element of the quality system is absent. In this case you will document this observation (e.g. not existing at the moment).

If any of the themes or topics is not relevant or it is impossible to describe and evaluate, please give reasons for that.

Here are some questions that might be useful for you when describing:

- What issues you take into account when planning the curricula?
- How the curriculum is prepared (timeline, decision making, participants)?
- How do you define intended learning outcomes, and where are they described
- What methods or data do you use to find out whether the students have achieved the intended learning outcomes?
- How are the links described and by whom?
  - Links between research and education
  - Links between development and innovation activities and education
  - Links between artistic activities and education
- How the requirement of lifelong learning is taken into account in the programme?
- How you take into account the requirements of working life relevance in your programme? planning (e.g. collected data from stakeholders, other information)?
- How personnel groups, students and external stakeholders participate in the quality work related to the planning of education?

### **Curricula and their preparation (process)**

The program development has been carried out as a part of the EU-supported the PETRUS initiative aiming at taking further step towards geological disposal E&T goals.

The PETRUS professional development training program aims to bring together vocational training on nuclear waste management and formal academic training provided by the partner higher educational institutes. Planning of the structure of the programme and the accreditation system have been a subjects of the EU FP7 financed Petrus II-project. After comparisons of the existing national accreditation systems for non-formal training the conclusion of this project was that the most consensual model for the purpose of the PETRUS programme accreditation would be an approach that applies ECVET-principles as instruments for mutual recognition and the French VAE system as framework for qualification of the PETRUS training programme.

Therefore, the practical implementation of PETRUS training programme follows ECVET principles: The training aims to the achievement of learning outcomes in a "Competency-Based Curriculum" defined in co-operation with the nuclear waste management industry. The objective is to set up qualification in geological disposal that can be achieved, accredited and recognized both through formal academic and PD training programmes.

Accordingly to this principle, learning out comes can be achieved by selecting formal academic

courses in the partner universities, through vocational training that fulfills the accreditation and evaluation procedures mutually agreed by consortium partners and the industry. This training can include occupational task specific courses, internship training and learning in practice. To support the training the consortium has also over 200 h of video lectures.

The update of the academic courses as well as regularly organized vocational courses or other training opportunities available for the students needs to be carried before the implementation of the program and preparation of the MOU. Another challenge on this issue is the different scheduling and academic year in different countries. Therefore, at the current state links between the different components showing a logical interconnection among modules/courses that constitute the programme are not established and indicated.

### ***Intended learning outcomes and their definition, as well as the assessment of learning that supports the intended learning outcomes***

The learning outcomes are intended to be linked to the competences and professional profiles of the nuclear waste management sector. The developed competence-based curriculum for the elaboration of Professional Development training programme on the radioactive waste disposal. The professional profiles have been developed in WP1 of Petrus III and describe to the key occupational tasks and also the trainee profiles with selected core competences required. The work already started in Petrus II has been taken further by determination of the learning outcomes related to the general and domain specific competences and outlining the applicable teaching and learning methods and assessment methods of knowledge, skills and attitudes. In the delineation of the core competences for professional profiles the job descriptions and E&T-needs that have compiled in previous projects and by IAEA have been taken into account.

The goal of the The Petrus PD-program planning has been to combine formal MSc-training and standard courses following the ECTS-system to vocational training following ECVET system. The courses organized by universities will be evaluated by the university quality control procedures as discussed in WP2 Deliverable 2.1. These should also include assessment of how the learning outcomes specified to those courses have been achieved. The list of possible course to be utilized in the training has been outlined in the previous Petrus II-project. Since then many of the participating universities have had substantial changes in their organization, staff and course provided. Therefore, before the implementation the course descriptions and intended learning outcomes must be updated and included to the MoU of the partner organizations.

The learning activities obtained through vocational training and education to be integrated to the program can be evaluated using the principles of ECVET. The KSC- base needed for the entry route to professional practice in geological nuclear waste disposal are linked in WP 1 with expected learning outcomes defined as statements of what a learner is expected to know, understand and/or be able to do at the end of a period of learning. The self learning activities are also supported by the lecture materials produced.

The procedures and criteria that can be applied to link the ECTS-system and ECVET system in a flexible and resource efficient way have been proposed in WP 2. Deliverable 2.2.B planning the allocation of the ECVET-units so that 60 points corresponds approximately to 1 year of full-time study the ECVET (credit) points can be approximated to 1 ECTS as a guideline value for the credit transfer from which representatives of academic institutions can deviate for one direction or the other. The terms for recognition criteria and procedures as adequate for credit transfer and agreement for the comparability of qualifications for credit transfer and use will be a

part of the Memorandum of Understanding in which the ECVET-partnership will be established. The attachments of MOE can include also more specific terms how learning outcomes relevant to ECVET-program can be achieved outside of the formal academic training activities can be related to ECTS-credits. These terms can be utilized in formulation of learning agreements and for formal recognition of learning outcomes.

### ***Links between research, development and innovation activities, education and training activities on nuclear waste management and geological disposal***

The program development has been carried out under EURATOM program for nuclear research and training with a strong link to Technology Platform for Implementation of Geological Disposal.

### ***Lifelong learning***

The ECVET system has been created to promote transnational mobility primarily within the European Union and to facilitate lifelong learning. Consequently, ECVET systems are strongly supported as tools for implementing e.g. E&T supported by Euratom (van Goethem, 2012).

### ***Relevance of degrees to working life***

The planned PD/MSc-level program is directly based on identified key competences of nuclear waste management industry and the E&T supported by Euratom. As the tool of transnational mobility the objective of ECVET is to make credit transfer, accumulation and recognition easier through an agreed description method for learning outcomes. In evolving and restructuring labour markets, ECVET system can help lifelong development of new knowledge, skills and competences while utilizing in new career routes what has been learned in the past.

**Participation of different personnel groups, students educational and industrial stakeholders**

Since 2005 “PETRUS” initiative coordinates universities, radioactive waste management organizations, training providers and research institutes efforts to develop cooperative approach to E&T in the geological disposal. PETRUS proposes a strategy to ensure the continuation, renewal and improvement of the professional skills by sharing resources from both academia and industries. The Consortium includes twenty one (21) representatives from twelve (12) different countries all over Europe.

PETRUS III is a project granted by European Commission within the Euratom program (7<sup>th</sup> Framework Program), whose objective is to promote Education and Training (E&T) in geological disposal of radioactive waste.

**Evaluation**

Assess the functioning, workload and impact of the procedures used for planning education, as well as how different parties participate in the quality work.

When assessing keep in mind the generic principles for good self-evaluation (pp. 3-4) and use support questions in Appendix B.

If you notice that some of the elements of the quality system are absent, mention that you have recognized the shortcoming. Consider this as an observation of an area in need of development.

<p><b>Assess how the procedures described earlier function, how much time they demand from different participants and how they contribute to the quality of the programme.</b></p>	<p><b>Evidence for the arguments</b></p>
<ul style="list-style-type: none"> <li>• The systematic development of quality management processes and the needed documentation has been an integral part of the program planning in Petrus III projects. Program accreditation applies ECVET-principles as instruments for mutual recognition and the French VAE system as framework for qualification of the PETRUS training programme.</li> <li>• Following the ECVET-principles qualification system that is considered to provide the KSC-base for the entry route to professional practice are linked with expected learning outcomes defined as statements of what a learner is expected to know, understand and/or be able to do at the end of a period of learning (as deliverable of WP 1). The ECVET program the partners will have mutual</li> </ul>	<ul style="list-style-type: none"> <li>• Development of quality management processes have dedicated work packages and deliverables in the Petrus III- project.</li> <li>• French VAE-system has well established quality assurance processes and concerning ECVET, existing Finnish guideline documents can be applied to formulate the final procedures for documentation quality management (learning agreement and validation of learning outcomes as well as Memorandum of Understanding including the description of procedures)</li> <li>• Many of the universities participating to the have already functioning QC/QA concerning the planning and</li> </ul>

<p>consent about the learning outcomes that expected to be achieved, the associated with ECVET points, the assessment criteria and methods as well as the validation and recognition of achieved learning outcomes. The principles and general procedures applied will be agreed on the Memorandum of Understanding (to be updated before implementation) between the participating organization while practical terms of implementation of human mobility are described in the learning agreement between learner and training providers and the host institutes where the learner is accepted as a student.</p> <ul style="list-style-type: none"> <li>• The formal academic education planned to be included to the program is essentially based on existing courses in European universities, which either have or are currently in the process of where quality control and assurance procedures are put in place.</li> </ul>	<p>implementation of the courses as well as for admittance of students.</p> <ul style="list-style-type: none"> <li>• Links between different components showing a logical interconnection among modules/courses that constitute the programme cannot be verified because the final (updated) list of courses and their schedules is not complete.</li> <li>•</li> </ul>
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## Implementation of the programme

### **Description**

Shortly describe how your quality management works in audit areas specified. You need not describe exhaustively the details of the actual quality procedures, but refer to the document where the procedures are described.

You may find out that some element of the quality system is absent. In this case you document this observation. If any of the themes or topics is not relevant or it is impossible to describe and evaluate, please give reasons.

Keep in mind the generic principles for good self-evaluation (pp. 3-4) and make use of the examples presented in Appendix A.

Here are some questions that might be useful for you when describing:

- How you select teaching methods and facilities (i.e. available premises, class rooms, laboratories, studios, information and communication technology tools, materials etc.)?
- How you select student assessment methods?
- How you collect feedback of student learning?
- How you follow students' well-being?
- How you evaluate and enhance teachers' competence?

- How you follow teachers' occupational well-being?
- How personnel groups, students and external stakeholders participate in the quality work related to the planning of education?

### ***Teaching methods and learning environments***

Variable from class-room education, internet based education to learning-by-doing at the research facilities, actual disposal sites and in the stakeholder organizations.

### ***Methods used to assess learning***

Partly ECTS-based procedures used in academic institutes, partly vocational training following ECVET-principles. The procedures for validation will be updated as a part of the final MOU-preparation before implementation of the program.

### ***Students' learning and well-being***

Student feedback is collected as a part of the already implemented activities (including Petrus II courses).

The learning agreement document that needs to be prepared before vocational learning activities and human mobility requires clarification of the expected activities what the student and the training providers and their staff-members are expected to do and accomplish. Such clarification as standard procedure is also an efficient way to assure students learning and wellbeing during vocational training.

Institutes of higher education committed to Bologna-process are expected to develop quality management processes which include monitoring student feedback and also developing monitor the quality teaching using different indicators. The procedures can vary from country to country and in different universities. Never the less commitment and provision of clarifying documentation and information is expected also in the MOU.

### ***Teachers' competence and occupational well-being***

The procedures can vary from country to country and in different universities.



## ***Participation of different personnel groups, students and external stakeholders***

External stakeholders have been closely involved in the planning of the program. However involvement of different personnel groups and students to the quality work remains to be open until the program implementation is followed.

## ***Evaluation***

Assess the functioning, workload and impact of the procedures used for planning education, as well as how different parties participate in the quality work.

When assessing keep in mind the generic principles for good self-evaluation (pp. 3-4) and use support questions in Appendix B.

If you notice that some of the elements of the quality system are absent, mention that you have recognized the shortcoming. Consider this as an observation of an area in need of development.

<b>Assess how the procedures described earlier function, how much time they demand from different participants and how they contribute to the quality of the programme.</b>	<b>Evidence for the arguments</b>
<ul style="list-style-type: none"> <li>• The teaching methods vary and depend on the form of learning activities (academic form a course or vocational training). The teaching methods selection is driven on the available resources at the participating organisations. A systematic quality work is a goal of the planned program.</li> <li>• Assess the learning can rely to the description of the competence based curriculum and needed KSCs. Methods how to assess the achievement of intended learning outcomes will be based on ECVET-principles as far as non formal vocational training ins concerned and ECTS-standards as far as formal academic courses are concerned.</li> <li>• Teachers competence and occupational wellbeing are part of the quality management carried out in participating organizations. This is the topic that may not require development program specific quality assurance procedures?</li> <li>• Participation of the stakeholders and part of</li> </ul>	<ul style="list-style-type: none"> <li>• The methods for collecting student feedback are established and partly tested. There is also readiness to apply the feedback and outcomes of monitoring in the quality work of the program.</li> <li>• However, more detailed criteria and assessment methods need to be developed and agreed upon the preparation of the final version of MOU.</li> <li>• The organizations providing academic or vocational training activities can be expected to carry out qc/qa on the competence and occupational well being as a part of their quality management activities and CV's of the staff involved.</li> <li>• Student feedback has already been taken into account in the preliminary planning of course implementation and selection of sites for field training (e.g. in St Joseph Gallery/ CTU)</li> </ul>

the staff members has been strong. However, it is recognized that concrete implementation of the training can be improved by closer involvement of staff students in the future.

## Effectiveness (impact) of quality work

### **Description**

Describe the effectiveness (impact) of quality work in following tables. Please, keep in mind the generic principles for good self-evaluation (pp. 3-4). If any of the themes or topics is not relevant or it is impossible to describe and evaluate, please give reasons.

Here are some questions that might be useful for you when describing:

- How have you defined your KPI's (Key Performance Indicators) and how are they related to the respective university level KPI's. How do you follow the development of the indicators?
- How do you know that the programme is running well, and what kind of methods are you using in keeping your programme successful.
- How you have developed your programme in relation to the information provided by the indicators.
- What are the main current improvement actions in progress?

### ***The key evaluation methods and follow-up indicators in terms of development at the level of degree programme***

Preparation of the program has been the topic of the Petrus III-project. The deliverables of the project can be considered as key follow up indicators of the preparation of the programme. In the implementation of the project, the key indicators will be the terms of agreed in final version of the MOU and its specifications concerning quality management.

### ***The development of operations during the past three to five years using indicators***

The development can be found in the progress reporting of the Petrus III.

### ***The measures currently in progress for improving the quality of education***

The deliverables of the Petrus project and implementation of QA/QC of teaching in the educational institutes planning to participate to the program.

### **Evaluation**

Assess the impact of the quality work on the achievement of the objectives set for the programme. Keep in mind the generic principles for good self-evaluation (pp. 3-4).

Here are some questions that might be useful for you when assessing:

- Are your key evaluation methods and follow-up indicators in line with the goals of the programme?
- Do the evaluation methods and indicators cover the goals?
- How is the feedback and evaluation results used in developing the programme; for instance feedback from Finnish Bachelor's Graduate Survey ("Kandipalaute"), course feedback, Teaching and Education Evaluation TEE 2010-2011, accreditations, assessments, benchmarking etc.
- What is the impact of the quality work measures on ensuring and developing your programme quality system?

<b>How do the processes described earlier in this document support the running of the programme successfully?</b>	<b>Evidence for the arguments</b>
<p>The preparation of relevant documents and guidelines are in progress but the final evaluation can be done after the partners willing to implement program have agreed on the final version of the MOU.</p> <ul style="list-style-type: none"> <li>• .....</li> </ul>	<ul style="list-style-type: none"> <li>• ...</li> <li>• ...</li> <li>• ...</li> </ul>

## Summary – conclusions of the descriptions and assessments

Summarize in following table format, the key strengths and areas in need of development related to the quality management of the degree programme. Areas in need of development can be e.g.:

- To construct currently absent elements of the quality system
- To develop further some existing elements of the quality system
- To strengthen the systemic nature of quality system (i.e. relationships between elements)
- To improve the description of the quality system
- To improve the evaluation of the quality system
- To improve documentation (availability, usefulness, etc.)
- To improve the role of different internal and external stakeholders

<b>Strengths</b>	<b>Areas in need of development</b>
<ul style="list-style-type: none"> <li>• Strong industrial contribution and support to the preparation of the program</li> <li>• SKC based description linking the intended learning outcomes and professional profiles and key qualifications</li> <li>• Utilization existing courses in different universities and course materials</li> <li>• Ability to utilize already existing processes particularly French VAE and Finnish ECVET-guidelines to the integration of non-formal vocational and academic training as well as to the development quality systems</li> <li>• ...</li> </ul>	<ul style="list-style-type: none"> <li>• To construct currently absent elements of the quality system concerning more detailed (updated) lists of currently available courses and contents.</li> <li>•</li> <li>• To develop further description of quality management procedures to be agreed to be implemented jointly in the program quality system and description of procedures that the partner institutes are going to carry out as their own internal QA-processes.</li> <li>• The key indicators and mechanisms of monitoring the achievement of the objectives of the program and achievement of the learning outcomes/objective will be necessary.</li> <li>• To improve the evaluation of the quality system</li> <li>• To improve documentation (availability, usefulness, etc.)</li> <li>• Although the planning of the program has been driven by the stakeholders, the participation of different internal and external stakeholders to the steering of the program implementation needs clarification.</li> <li>•</li> </ul>

## Current status of quality management using FINEEC criteria

Assess the development stage of each sub area of programme quality management (absent, emerging, developing, advanced) and describe shortly reasons for your choice using the criteria presented in the table *Audit Criteria by FINEEC* (page 16).

<b>Development stage</b> absent - emerging - developing - advanced	<b>Reasons for your choice</b>
<b>Planning of education</b>  Mostly in developing state, partly emerging	The program is in a planning phase. Systematic approaches to the development the quality management procedures and system have been taken.  Links between different components showing a logical interconnection among modules/courses that constitute the programme cannot be completed.  Final plans can be completed not until the official negotiations on MOU have been started.
<b>Implementation of education</b>  Emerging, partly developing	The program is in a planning phase. Since some of the intended education is based on existing courses in partner universities with their own ongoing quality systems it is fair to consider implementation to be partly developing.
<b>Effectiveness of quality work</b>  Emerging	At this planning state evidence of the effectiveness of the quality work cannot be at more advanced level

Table Audit criteria by FINEEC

	Absent	Emerging	Developing	Advanced
<p><b>Samples of degree education: degree programmes</b></p> <p><b>Planning of education:</b></p> <ul style="list-style-type: none"> <li>- Curricula and their preparation</li> <li>- Intended learning outcomes and their definition</li> <li>- Links between research development and innovation activities, as well as artistic activities, and education</li> <li>- Lifelong learning</li> <li>- Relevance of degrees to working life</li> <li>- Participation of different personnel groups, students and external stakeholders.</li> </ul> <p><b>Implementation of education:</b></p> <ul style="list-style-type: none"> <li>- Teaching methods and learning environments</li> <li>- Methods used to assess learning</li> <li>- Students' learning and well-being</li> <li>- Teachers' competence and occupational well-being</li> <li>- Participation of different personnel groups, students and external stakeholders.</li> </ul> <p><b>Effectiveness of quality work:</b></p> <p>Suitability of key evaluation methods and follow-up indicators and their impact on the achievement of goals.</p>	<p>The quality system shows a complete absence of or major shortcomings in the:</p> <ul style="list-style-type: none"> <li>- Quality management procedures related to the planning of education.</li> <li>- Quality management procedures related to the implementation of education.</li> <li>- Participation of the institution's personnel groups, students or external stakeholders in the development of the operations</li> <li>- Effectiveness of the quality work</li> </ul>	<p>The quality management procedures related to the planning of education are not fully functional and do not support the planning of education in a meaningful manner.</p> <p>The quality management procedures related to the implementation of education are not fully functional and do not support implementation in a meaningful manner.</p> <p>The personnel groups, students and external stakeholders are not involved in developing the operations in a meaningful manner.</p> <p>There is little evidence of the effectiveness of the quality work.</p>	<p>The quality management procedures related to the planning of education enhance the quality of planning and support planning itself.</p> <p>The quality management procedures related to the implementation of education enhance the quality of the implementation and support implementation itself.</p> <p>Personnel groups and students are involved in developing the operations in a meaningful manner. External stakeholders also participate in the development work.</p> <p>There is clear evidence of the effectiveness of the quality work.</p>	<p>The quality management procedures related to the planning of education are systematic and well-established and provide excellent support for planning.</p> <p>The quality management procedures related to the implementation of education are systematic and well established and provide excellent support for implementation.</p> <p>Personnel groups and students are committed and very actively involved in the development of the operations. External stakeholders are also involved in the development work in a meaningful manner.</p> <p>There is clear and continuous evidence of the effectiveness of the quality work.</p>

## Implementation of the self-evaluation

Describe how the self-evaluation process was carried out and the self-evaluation report was produced. Who participated in the description, assessment and summary phases of the process? What ideas did the evaluation process bring up? How did you benefit of this self-evaluation process? Evaluate the success of the process and how it is integrated to the quality system and development of the activities.

Please insert description.

The drafting of this self-evaluation template and the drafting its contents are carried out as a part of the WP2 activities of Petrus III.



## Appendix A – Assistance for describing quality procedures

Below you find some suggestions for issues to consider when describing your quality management procedures. These are not exhaustive, exclusive or prescriptive. These are indications of the type of issues useful to include in a programme self-evaluation.

It is highly recommended to provide related **evidence**, i.e. reference to existing quality procedures such as processes, documents, mechanisms, roles and responsibilities, support services, data management systems, instructions, guidelines, leadership/management and other structures to support your description.

**Goals** In each section it is recommended to define the related goals. From the perspective of quality system, you might also need to describe how the goals have been set (who was participating in the goal setting and the nature of the goal setting process itself), how the quality of goal setting is ensured (i.e. that the goals are in line and covering all the relevant University and School level goals), and how is it ensured that the goals are documented, available and communicated so that all the relevant actors can commit to them.

**Planning** You can describe how the quality of the planning result (related to the theme of the section) and the quality of the process of planning is ensured. Also you can mention who has participated the planning and how the plans are documented.

**Evaluation** It is suggested to describe with what procedures and evaluation methods the quality of implementation is ensured. You can also provide information about the documentation of the evaluation data, what has been done with the data and how it has impacted the development. Describe also how well your evaluation and follow up cover all the goals that have been set. You can also explain how you make sure that you get enough information about the reasons and factors affecting the result of the evaluations (for example numerical data provided by course feedback system). You can also describe what kind of development is needed to improve the quality of your evaluation procedures and methods.

**Development** Describe why and what kind of development actions has been taken to improve the quality. On what basis the development actions were chosen, prioritized and planned? How the development actions are linked to the set goals and the evaluation findings? You can also describe how you apply development resources outside of your programme /school (e.g. external funding, TOST Strategic Support of Research and Education, strategic funding). You might also describe how the quality of development activities are monitored and enhanced.

**Participation of different stakeholders** It is recommended to provide information about the participation of different internal and external actors and stakeholders in goal setting, planning, implementation, evaluation and/or development of the activities and quality system.

## Appendix B – Assistance for carrying out evaluation

### Functioning of the quality procedures

When you assess the functioning of the quality procedures, it is recommended to analyze them from the point of view of the set goals, planning, evaluation and development. Here are some questions that might be useful:

<p>Goals</p> <ul style="list-style-type: none"><li>- Who has set the goals and how?</li><li>- Are goals clearly defined, documented and easily available?</li><li>- Are goals known by all relevant actors?</li><li>- Are goals defined in a way that they can be evaluated?</li><li>- Is there shared understanding of what goals mean and what they require?</li><li>- How well goals cover and are in line with school and university level goals?</li><li>- How is the quality of the goal setting process ensured and improved?</li></ul>
<p>Planning</p> <ul style="list-style-type: none"><li>- In what way you make sure that that the plan is good quality, in line with the set goals and covering all the goals?</li><li>- Are the plans and the planning processes documented?</li><li>- Are the plans available in a way that supports relevant actors to commit to follow them?</li><li>- Is the planning process organized in a way that ensures the targeted quality of the plan?</li><li>- What are the shortcomings of the planning process?</li><li>- How the plan and the planning process will be developed, by whom and when?</li></ul>
<p>Evaluation</p> <ul style="list-style-type: none"><li>- How well does your evaluation cover your goals?</li><li>- Do you get enough information of the current state of this task (status quo)?</li><li>- Do you get enough information about reasons and factors affecting to the state of this task?</li><li>- Who is analyzing evaluation data?</li><li>- How well does your evaluation and analysis of the data provide useful information to support the development?</li><li>- How well your evaluation and follow-up plan is documented and available?</li><li>- How do you develop your evaluation and follow-up procedures?</li></ul>
<p>Development</p> <ul style="list-style-type: none"><li>- How do you decide and prioritize development actions?</li><li>- Are the development activities related to the set goals and covering them?</li><li>- How the development activities are linked with the evaluation data?</li><li>- Who has planned what and how to develop?</li><li>- Are your development procedures known by all relevant actors?</li><li>- How do you evaluate success of your development actions?</li><li>- How do you ensure resources for development (time and competence)?</li><li>- Are you using the relevant development resources outside of your program / school (e.g. external funding, TOST Strategic Support for Research and Education, strategic funding)?</li></ul>

### Workload, and impact

- What is your return of investment (Impact in relation to your effort)?
- How can you improve your return of investment by developing your quality procedures?
- How well does your quality system function?

### Participation of different stakeholders

- How do you choose relevant stakeholders in planning, implementation and evaluation phases?
- Are different stakeholders participating in all relevant activities?
- How well is your co-operation working?
- Who is responsible for quality of stakeholder participation in education?