



BECK

INTEGRATING EDUCATION
WITH CONSUMER BEHAVIOUR RELEVANT TO
ENERGY EFFICIENCY AND CLIMATE CHANGE
AT THE UNIVERSITIES OF RUSSIA,
SRI LANKA AND BANGLADESH



WP4. QUALITY PLAN

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BECK Quality Plan

Revision of February 27, 2019

(Adopted at the Steering Committee Meeting of 27th-February — 1st March 2019 in Colombo)

Introduction

Quality assurance for the BECK (Integrating education with consumer behaviour relevant to energy efficiency and climate change at the Universities of Russia, Sri Lanka and Bangladesh) project is aimed at ensuring the systematic monitoring and control of the quality of the project in order to maximise the likelihood that the project will deliver its intended outcomes. To achieve this, a comprehensive quality plan has been developed as described in this document.

A dedicated WP4 will ensure systematic monitoring and evaluation of the project's activities to maximize the probability that the project will deliver its planned outputs and achieve its intended outcomes.

The global quality of the project execution is linked to the quality of every WP and tasks to be developed at all levels of the project. The quality plan includes a comprehensive management.

- 1) Quality planning will provide an integrated approach to monitoring and quality throughout the project. This will be collectively developed by project partners so that a common vision of the project is achieved and the high quality expectations are jointly agreed and owned by all BECK project partners. This process will be embodied in the project quality plan.
- 2) Internal monitoring and evaluation will take place throughout the project. Project partners will continuously monitor and control the project processes, events and outputs in order to assess and evaluate project performance. These assessments will feed into regular performance reviews aimed at ensuring continuous performance improvement through the project. All internal monitoring and evaluation documentation will be compiled into regular (annual) internal monitoring and evaluation summary reports.
- 3) External monitoring and evaluation will take the form of regular evaluations carried out by independent experts who will provide an unbiased, professional opinion of project performance. Reports documenting external monitoring and evaluation will be produced at the end of year 2 and year 3 of project implementation.

The quality plan is intended to comprehensively document the quality expectations for the project and how these expectations will be met. This includes:

- appropriate **quality standards** for each aspect of each work package of the project;
- objectively verifiable (qualitative and quantitative) **performance indicators** and means of verification for each quality standard;
- **templates** supporting project quality assurance.



The quality plan provides the basis for both internal and external project evaluations as well as for work package progress reporting. It is intended as a 'living document' so that it will be developed and adapted throughout the project as the need to do so arises.

The Monitoring and Quality Control Committee (MQCC)

The Monitoring and Quality Control Committee (MQCC) is on charge of monitoring the project activities to maximize the probability that the project will deliver planned outputs and achieve its independent outcomes. The MQCC is a subcommittee of the Administrative and Financial Steering Committee (AFSC) chaired by the General Administrative and Financial Manager (AFM) from applicant organization. The AFSC includes all WPs leaders and chairs of committees. MQCC comprise members of the AFSC and team leaders, but further supported by external and independent representatives using external evaluation and feedback mechanism.

List of MQCC members will be appointed at the kick off meeting in Colombo (table 1)

Table 1. List of MQCC members

Partner No	Description	Name
P1	WP3&WP6 Leader	Arturas Kaklauskas
P2	WP1&WP2 Co-leader	Dilanthi Amaratunga
P3	WP4 Co-leader	Irene Lill
P4	WP5 Leader	Nina Danilina
P5	WP3 Co-leader	Elena Gordeeva
P6	WP1 Leader	Champa Madhumathi Navaratne
P7	P7 Team leader	Marco Pretelli,
P8	WP4 Leader	Elena Nikonchuk
P9	WP5 Co-leader	Vladimir Andreev
P10	P10 Team leader	Vladimir Echenique
P11	P11 Team leader	A.K.M. Mostafa Zaman
P12	WP5 Co-leader	Palliyawaththage Ransil Nishara Fernando
P13	WP2 Co-leader	Dhiman Kumer Roy
P14	WP4 Co-leader	Rangika Halwatura

The MQCC will prepare once a year Quality reports concerning the development of the project and this will enable the obtaining of evolution quality indicators. Possible weaknesses will be identified through these reports, allowing the MQCC to detect possible deviations and to adopt the necessary measures to correct them. A MQCC meeting will be held before the elaboration of each report. These meetings will be done during AFSC meetings annually and coordinated by a WP4 leaders. The coordinator will be responsible for the elaboration of the due report. The assessment tools was discussed and decided during the kick-off meeting.

Quality Plan Structure

Quality assurance has already been generally considered in the project design so that numerous quality processes, events and tools (quality planning, reviews, evaluations, surveys,



templates, etc.) are outlined in the project description. The intention of the quality plan with regard to these is twofold:

1. to structure them so that any gaps are exposed and closed while minimizing the additional administrative burden,
2. to elaborate the details of these processes, events and tools so that they are explicit, clear and fully defined for implementation.

The quality plan is organised in the form of 2 related tables:

- Table 2 – A summary of the different types of project deliverables for the BECK project together with their corresponding quality assurance requirements and associated templates
- Table 3 – Objectively Verifiable Indicators and Means of Verification for all the project work packages and their deliverables

Table 2 is intended to ensure a standard approach to quality assurance in all project activities (for example, standards for meetings, progress reporting templates, participant evaluations of events and so forth). The templates identified in Table 2 are listed on the last page (page 12) of the quality plan. They shall be developed and made available as required.

Table 2: Summary of quality assurance requirements and templates by deliverable type

Deliverable Type	Requirements / Standards / guidelines	Templates
All project documents, reports and presentations	EU Erasmus+ logo BECK project logo European commission disclaimer	Document /report templates Presentation template
Overall project	Project (interim and closure) reporting Annual self-evaluations Independent expert evaluations External financial audit	Project partners self-evaluation template Independent expert evaluation report template
Conference papers, journal papers & editorials	EU funding acknowledgement with disclaimer	
Meetings	Agenda Meeting minutes Participant evaluation	Meeting agenda template Meeting minutes template Meeting participant evaluation form
Project Management	EU Lifelong Learning – Erasmus programme standards Progress reporting with reference to measurable	Work package progress reporting template



Deliverable Type	Requirements / Standards / guidelines	Templates
	indicators from Quality Plan Table 3	
Training programme and training events	Training materials Training programme schedule Participant registration Participant feedback	Training participant register template Training participant evaluation form template

Table 3 compiles both quantitative and qualitative objectively verifiable indicators which have been identified and agreed by the project partners. These indicators are to be captured in order to demonstrate that the deliverable or work package has been successfully achieved to an appropriately high quality level. These are referenced to corresponding means of verification, i.e. the specific documents where the objectively verifiable indicators are recorded.



Table 2: Objectively verifiable indicators and means of verification for all project work packages and their deliverables

Work Package / Deliverable Ref	Description	Verifiable quality indicators		Means of Verification
		Qualitative Indicators	Quantitative Indicators	
Project Overall		<ul style="list-style-type: none"> Quality of project results Satisfaction of labour market needs Feedback from end-users International cooperation among EU and PC HEIs in education and research Knowledge assessment, employability of graduates Implementation of energy efficiency and climate change mitigation measures 	<ul style="list-style-type: none"> Partnership agreements Number of members involved in consortium Number of upgraded study programmes in PC universities 	<ul style="list-style-type: none"> Work package progress reports Annual self-evaluation reports Independent evaluation reports Project (interim and closure) reports
WP1	Preparation for project activities			
WP1 Overall		<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Report on common capacity building methodology University registers Accreditation reports Needs analysis reports Project website Meeting minutes
1.1	Workshop and focus groups to analyse needs, gaps and possibilities for common curricula development	<ul style="list-style-type: none"> Feedback from participants at workshop and focus group events 	<ul style="list-style-type: none"> Number of workshop and focus group events Number of participants at events Time taken to finish the curricula development 	
1.2	Reports and BECK capacity building framework	<ul style="list-style-type: none"> Review feedback 	<ul style="list-style-type: none"> Number of reports on needs analysis Number of reports submitted on time 	



			<ul style="list-style-type: none"> • Number of comments • Common BECK capacity building framework 	<ul style="list-style-type: none"> • Work package progress reports • Annual self-evaluation reports • Independent evaluation reports • Project (interim and closure) reports
1.3	Guidelines and accreditation rules for the quality assurance of MOOCs	<ul style="list-style-type: none"> • Participants' (feedback) opinions • Acceptance of the guidelines 	<ul style="list-style-type: none"> • Number of guidelines and rules developed for the quality assurance of MOOCs 	
WP2	Development of New Adaptive MOOC Modules on Consumer's Behaviour Related to Energy Efficiency and Climate Change			
WP2 Overall		•	•	<ul style="list-style-type: none"> • Report for the common BECK curriculum
2.1	The framework report for the common curricular	•	<ul style="list-style-type: none"> • The framework report for the common BECK curriculum produced 	<ul style="list-style-type: none"> • Framework report for the common curricular
2.2	The report on common grounds for teaching and learning	•	<ul style="list-style-type: none"> • The report on common grounds for teaching and learning produced 	<ul style="list-style-type: none"> • Report on common grounds for teaching and learning • Registers of PC universities • Partners' websites • Meeting minutes
2.3	Training of teaching staff	<ul style="list-style-type: none"> • Participant feedback • Active participation • Diversity of participants 	<ul style="list-style-type: none"> • Number of teachers trained 	
2.4	Adaptive MOOCs specifications and	•	<ul style="list-style-type: none"> • Number of MOOCs developed 	



	teaching (learning) materials			<ul style="list-style-type: none"> • Work package progress reports • Annual self-evaluation reports • Independent evaluation reports • Project (interim and closure) reports
2.5	Assessed, recognised and certificated adaptive MOOCs integrated to corresponding studies by universities in Russia, Bangladesh and Sri Lanka	<ul style="list-style-type: none"> • Official recognition of new adaptive MOOC modules and integration into existing BSc/specialists, MSc, PhD study programmes 	<ul style="list-style-type: none"> • Number of upgraded study programmes in PC universities • Number of recognised and certificated MOOC modules available 	
WP3	Development and Exploitation of the Simulated Big Data Interuniversity Networked Affective Educational Centre			
WP3 Overall		<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • 	<ul style="list-style-type: none"> • Attendance lists of training courses • Training certificates • Survey of students and teachers - report • University registers • BECK Centre functionality testing results • Registered users of
3.1	Simulated Big Data Interuniversity Networked Affective Educational Centre (BECK Centre)	<ul style="list-style-type: none"> • Satisfaction with BECK centre • Feedback on using methodology and interface • Conformance of BECK centre to labour market needs 	<ul style="list-style-type: none"> • BECK centre created • Number of participating universities / organisations • Number of Centre users 	
3.2	Training and lecturing	<ul style="list-style-type: none"> • Results of evaluations by stakeholders and local experts • EU quality standards achieved • Feedback of stakeholders 	<ul style="list-style-type: none"> • Number of courses • Number of retrained teachers in PC universities • Training certificates issued 	



3.3	Education of students	<ul style="list-style-type: none"> • Student feedback • Student satisfaction 	<ul style="list-style-type: none"> • Number of students • Types of students • % of students completing courses • Number of trained executives working in built-environment organizations • Number of trained administrators/specialists working in construction and environment ministries 	<p>the Centre</p> <ul style="list-style-type: none"> • University registers, MOOCs available online, reports • Meeting minutes • Work package progress reports • Annual self-evaluation reports • Independent evaluation reports • Project (interim and closure) reports
3.4	Feedback and quality improvement of MOOCs	<ul style="list-style-type: none"> • Feedback of stakeholders • Benchmarking on improved MOOCs • Internal and external evaluations 	<ul style="list-style-type: none"> • Number of improved MOOCs 	
WP4	Quality assurance			
WP4 Overall		<ul style="list-style-type: none"> • Quality assurance requirements do not impose unreasonable administrative burden on partners • Project performance improves as a result of quality assurance activities • Achievement of quality objectives • Project compliance with quality assurance best practice 	<ul style="list-style-type: none"> • Monitoring and Quality Control Committee established 	<ul style="list-style-type: none"> • Meeting minutes • Quality plan • Annual self-evaluation reports • Work package progress reports • Annual self-evaluation reports • Independent evaluation reports
4.1	Development of quality plan	<ul style="list-style-type: none"> • All partners participate in the formulation of suitable indicators • Quality plan agreed by all partners • Quality plan approved by the steering committee 	<ul style="list-style-type: none"> • Quality plan produced 	<ul style="list-style-type: none"> • Independent evaluation reports



		<ul style="list-style-type: none"> Feedback from the independent evaluator Performance indicators developed and agreed by all partners Work package progress reporting template developed 		
4.2	Internal monitoring of BECK results	<ul style="list-style-type: none"> Self-evaluation exercise takes place at scheduled time Self-evaluation results are used to improve project delivery 	<ul style="list-style-type: none"> Number of participants represented in the self-evaluation exercise Number of partner organisations represented in the self-evaluation exercise 	
4.3	External monitoring of BECK results	<ul style="list-style-type: none"> Independent evaluators are appropriately qualified 	<ul style="list-style-type: none"> Independent evaluator selected Independent evaluation takes place at scheduled time Independent evaluation reports produced on time 	
WP5	Dissemination and exploitation			
WP5 Overall		<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Number of peer reviewed conference articles Number of international peer reviewed journal articles Number of joint conference and journal articles 	<ul style="list-style-type: none"> Dissemination and exploitation plan Work package progress reports Event participation registers Participant evaluations of events
5.1	Dissemination and exploitation plan	<ul style="list-style-type: none"> Consensus in dissemination and exploitation planning 	<ul style="list-style-type: none"> Dissemination and exploitation plan 	



		<ul style="list-style-type: none"> • Diversity of activities • Adequacy of schedule • Geographical scope 	<ul style="list-style-type: none"> • Number of activities • Number of stakeholders involved 	<ul style="list-style-type: none"> • Dissemination activities report • Publications in scientific journals and proceedings • Summary books • Project website • Partners' websites • Media reports • Multilingual e-newsletters • Project brochure • Summary books • Sustainability plan
5.2	Dissemination through branch organizations	<ul style="list-style-type: none"> • Verification from organisations 	<ul style="list-style-type: none"> • Number of events • Number of participants • Number of organisations • Local/national radio/TV programs with information on project results 	
5.3	Dissemination through websites	<ul style="list-style-type: none"> • Usability • Visibility • Content quality 	<ul style="list-style-type: none"> • Project website • Links from partners' websites • Number of visits to website • Number of multilingual e-newsletters • Project informative brochure available (online) 	
5.4	Printed dissemination material	<ul style="list-style-type: none"> • National and local language content • Content quality • Compliance with rules 	<ul style="list-style-type: none"> • Number of types of materials • Number of copies distributed • Number of project informative brochures (printed) • Number of summary books produced 	
5.5	Conduction of dissemination events	<ul style="list-style-type: none"> • Participants' diversity: geographical, cultural, educational, disciplinary • Media involvement 	<ul style="list-style-type: none"> • Number of international events that are (co)organised by partners 	



		<ul style="list-style-type: none"> Public participation 	<ul style="list-style-type: none"> Number of participants Number of events 	
5.6	Sustainability plan	<ul style="list-style-type: none"> 	<ul style="list-style-type: none"> Sustainability plan developed 	
WP6	Management			
WP6 Overall		<ul style="list-style-type: none"> Achievement of planned (qualitative) outputs Activity progress (qualitative assessment) Financial management meets European Commission requirements 	<ul style="list-style-type: none"> Achievement of planned (quantitative) outputs Activity progress (physical progress) 	<ul style="list-style-type: none"> Project (interim and closure) reports Annual self-evaluation reports Independent evaluation reports Work Package progress reports Meeting agendas Meeting minutes Participant registers Participant evaluations of meetings
6.1	A kick-off and coordination meetings	<ul style="list-style-type: none"> Feedback from participants Actions arising from previous meeting minutes fulfilled 	<ul style="list-style-type: none"> Number of steering committee meetings held Number of meeting attendees 	
6.2	Official and internal reports on project progress	<ul style="list-style-type: none"> Feedback from Commission on interim report 	<ul style="list-style-type: none"> Number of official and internal project progress reports Reports produced on time 	



EXTERNAL experts

The External experts will be selected on the base of agreed criteria from the representatives of stakeholders and universities experts respectively specialized on the technical aspects of energy efficiency and climate change education and the Simulated Big Data sciences in Russian, Sri Lanka and Bangladesh higher education. They will advise the consortium on the quality of the project by analysing the Quality Assurance reports. They will provide feedback at the meetings if they attend in oral form, as well as in written format. The progress report will inform the consortium about strengths in the processes, but also about weaknesses, challenges or constraints, while recommending possible solutions. Their inputs will be taken into consideration for adjusting the project activities, if necessary. They will assess the final project outputs against initial aims and purposes.

Basic documents used for the quality assurance

- ESG ENQA - Standards and guidelines for quality assurance in the European Higher Education Area (ESG - European Standards and Guidelines) developed by ENQA (European Network for Quality Assurance) <https://enqa.eu/index.php/home/esg/>
- A Framework for Qualifications of the European Higher Education Area http://www.aic.lv/ace/ace_disk/Bologna/Bergen_conf/Reports/EQFreport.pdf
- National (Russian) Qualifications Framework https://connections.etf.europa.eu/wikis/home?lang=en#!/wiki/Wf591e43b607e_4ccf_8d94_a3256a255147/page/Russian%20Federation%20-%20NQF%20Inventory
- EUR-ACE Framework Standards and Guidelines (EAFSG) http://www.enaee.eu/wp-assets-enaee/uploads/2012/02/EAFSG_full_nov_voruebergehend.pdf
- European Network for Accreditation of Engineering Education (ENAEE), «EUR-ACE Framework Standards for the Accreditation of Engineering Programmes» www.enaee.eu
- TUNING Educational Structures in Europe, A Guide to Formulating Degree Programme Profiles, Including Programme Competences and Programme Learning Outcomes <http://www.unideusto.org/tuningeu/publications.html>

List of Templates

1. Document /report templates
2. Presentation templates
3. Work package progress reporting template
4. Project partners self-evaluation template
5. Meeting agenda template
6. Meeting minutes template
7. Meeting participant evaluation form
8. Participant register template
9. Participant evaluation form template