

ERASMUS PLUS

KEY ACTION 2: COOPERATION FOR INNOVATION AND THE EXCHANGE OF GOOD PRACTICES
Capacity Building in the field of higher education



Digitalization of economic as an element of sustainable development of Ukraine and Tajikistan / DigEco 618270-EPP-1-2020-1-LT-EPPKA2-CBHE-JP

WP3 - Quality Control



DIGITALIZATION OF ECONOMICS

AS AN ELEMENT OF SUSTAINABLE DEVELOPMENT

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Quality control (QC) is a process through which DigEco consortium seeks to ensure smooth project running and reach its results. DigEco Quality control requires the consortium to create an environment where all players strive for perfection

1. Introduction

The Quality Assurance Plan/Strategy of the DigEco Project is intended as the Guide for the DigEco Quality Assurance. It is a practical document, a set of guidelines and instructions that will enable the project team to quickly identify the right formats, processes, and procedures to ensure that the project achieves the overall standards required to meet its objectives. It outlines criteria and processes, specifies the roles of partners, establishes performance indicators, provides relevant reporting forms, and provides detailed instructions for WP leaders, the task leader, and partners to carry out the relevant procedures. For this reason, the DigEco Quality Assurance Plan is a "living document" that is subject to change and may be modified during the life of the project, depending on operational needs and opportunities (e.g., identification of additional indicators, emergence of innovative assessment techniques and methodologies, etc.) that arise and are identified as relevant by the partners.

The DigEco Quality Plan includes the following chapters:

- Chapter 2 introduces the Project and Project Consortium, describes its management and coordination structure, and explains interactions between management and coordination and quality assurance;
- Chapter 3 describes the overall Quality Assurance Strategy, describing the relevant points to be achieved during the Project implementation;
- Chapter 4 gives an overview on Quality Assurance Indicators which deal as the measures for the progress of the DigEco Project;
- Chapter 5 describes the individual Quality Assurance procedures which should be performed during the Project lifetime;
- Chapter 6 describes specific methodology and tools of QA of DigEco Project;
- Chapter 7 describes the areas for the evaluation of the outcomes and impacts.

Questionnaires, forms and other tools, to be used in the Quality Assurance process, are included as annexes.

2. The DigEco Project

DigEco project is call to build capacity of development of innovation digital technologies in economics instead of outdate ones to be in line with Global market challenges by development the Virtual Project Learning Platform inc. Project Inclusive Education component for education of high skilled specialists in line with labour market, EU best practices and Bologna process in Ukraine (UA) and Tajikistan (TJK). Specific objectives: 1. Fill the demand of Labor market (LM) in UA, TJK specialists in digital economics by Implementation of modern trends in the digital sphere of UA and TJK HEIs in accordance with EU best practices by joint PCs and EU HEIs creation of 13 innovation curricular for MA in economics inc. PIE component till Nov 2022 according to the Bolonia requirements and EU strategy of Digital Single Market. 2. To create inclusive educational enviroment acording Education 4.0. in the field of DE-implementation of methodological and technological activities for the creation of interactive and multimedia content and the corresponding digital platform for development of multimedia content for inclusive education. 3. Launch innovative partnership model for Stakeholders networking - Creating of basic digital services for use by citizens in the field of education, for launching partnership models of representatives of the digital industry, business and universities in UA and TJK. New study program focuses on the business opportunities and organizational consequences offered by a wide range of digital technologies, including cloud computing, 'big data' analytics. Student will learn to function as a bridge between 'digital technology' and 'business'. Combining theory with practice, the programme provides a strong basis on economic, information technology, computer programming.

2.1. The Consortium of DigEco Project

The DigEco Digitalization of economic as an element of sustainable development of Ukraine and Tajikistan / DigEco

618270-EPP-1-2020-1-LT-EPPKA2-CBHE-JP is implemented by a Partnership of 15 organizations from 5 countries representing Higher Education Institutions (HEI) and UA and TJK enterprises and UU NGO:

- P1. Mykolas Romeris University (Lithuania)
- P2. University of Applied Sciences Hamburg (Germany)
- P3. University of Maribor (Slovenia)
- P4. State Higher Education Institution Pryazovskyi State Technical University (Ukraine)
- P5. Admiral Makarov National University of Shipbuilding (Ukraine)
- P6. Zhytomir Polytechnic State University (Ukraine)
- P7. Kamianets-Podilskyi National Ivan Ohienko University (Ukraine)
- P8. Dmytro Motornyi Tavria State Agrotechnological University (Ukraine)
- P9. Tajik Technical University named after academician M.Osimi (Tajikistan)
- P10. Tajik State University of Finance and Economics (Tajikistan)
- P11. Khujand Polytechnic Institute of Tajik Technical University (Tajikistan)
- P12. NGO “Vynnytsia City Organization” Parostok”
- P13. LLC “Company M-Master”(Ukraine)
- P14. Neksigol Navovar (Tajikistan)
- P16. Ministry of Digital Transformation of Ukraine (Ukraine)

2.2. Management and Coordination Structure

The overall evolution of the DigEco project is steered by a *Project Management Board (PMB)*. It is composed of representatives from each partner organization and its members act also as local project coordinators. It is the decision-making body that takes decisions about how the project will be run and how the project consortium works together. It is responsible for carrying out tasks, monitoring the progress of the project in relation to the main objectives, making decisions and resolving problems if any arise. The main goal of these actions is to ensure the smooth development of the project.

The *Coordinator* of the DigEco Project is the Mykolas Romeris University (Lithuania) (MRU). The MRU leads the overall management of the project and is responsible for the concrete implementation activities and financial management. The main tasks of the project coordinator are described in the detailed DigEco project description.

Work Package Leaders (WPL) are coordinating the work in the 5 DigEco Work Packages (WP). They are responsible for planning, monitoring and reporting on the implementation of the planned activities in their respective WP. They report on M&E and QA for activities and deliverables in their respective work packages.

Work Package	WP Type	Work Package Leader
WP1	Preparation	P9
WP2	Development	P2
WP3	Quality Plan	P3
WP4	Dissemination & Exploitation	P4
WP5	Management	P1

3. The Quality Assurance Strategy

Every institution in the European Union that follows the standards of the European Higher Education Area has quality assurance (QA) as an integral part of its internal management. It helps to support teachers and build expertise and capacity in the higher education system in order to deliver positive outcomes for students. Through sharing, understanding and applying standards and expectations, quality assurance helps to raise standards, expectations, and levels of consistency across HEIs. Efficient and effective approaches to quality assurance will require building on local practices, developing working approaches across HEIs authorities and partners and linking this work at a national level.

To achieve the Quality Assurance, the list of objectives based on monitoring, self-evaluation and planning for improvement, was developed. These are:

- Ensure the maintaining of high standards of updated and modernized curricula
- Ensure the outcomes improving for students
- Meeting standards and expectations through the internal universities resources;
- Analyzing and fulfillment of National Qualifications Frameworks;
- Ensuring assessment materials and exemplification, including those that will be available;
- Ensure that accreditation of developed curricula at national/institutional level, regulations and guidelines are followed and also applicable;
- Training of target universities staff and academic faculty on quality improvement processes;
- Provide quality assurance approaches of other non-academic partners;
- Quality control as a part of external evaluation

To develop a proper Quality Assurance System, a list of special activities is to be performed:

- Development of the Internal quality assurance system. This means that in each partner university a quality group of responsible specialists should be created. That groups should have effective quality checks in place, define assessment tasks and activities, valid and reliable assessment decisions in line with national standards, and responsible for the internal verification of their assessments.
- Development the procedure for self-monitoring (including reports template, questionnaires, surveys plans and feedback reports from target students/academics/stakeholder groups)
- Peer-reviews regarding quality assessment of new curricula based on quality indicators (quantitative & qualitative assessment); recommendations for quality indicators and peer-review procedure are to be developed.
- Monitoring & Evaluation (M&E) including self-monitoring reports with necessary conclusions and recommendations every 6 months (including comparison with work plan of the project activities; evaluation of outcomes and their quality in form of special developed report template; interviews with stakeholders; online evaluation). It will ensure an appropriate focus on coherent planning, checking, sampling, reviewing and providing feedback for quality improvement.
- External monitoring: external quality evaluation provides information on strategy, operations and learning with focus on impartiality, usefulness, technical adequacy, stakeholder involvement, value for inputs and feedback. Mid-term independent project evaluation is planned in the middle of the 2nd year and upon project completion, which are being conducted as part of project's external evaluation. External expert (EE) will be responsible for midterm and final project evaluation. EE will conduct the evaluation session during the project's conference or

partners' meetings to review and discuss M&E concept/tools and mid-results with target universities. Within this external evaluation mechanism, feedbacks on project quality or risks identified will be provided by an External Evaluator to the coordinator. Findings of the evaluation will be used to improve project's performance, continuous feedback and organisational and institutional knowledge and learning.

- Project approaches will include opportunities for collaboration both virtual and face-to-face (for example, through network groups and professional development workshops). Through the series of workshops curriculum planners and managers (faculty heads/principal teachers) of target universities will train to build on existing practices to ensure that quality assurance activities are fit for purpose, comparable, manageable and accessible. The workshops also will provide opportunities and support for staff working collaboratively on quality assurance, verification and contributing to the National Qualification Frameworks.
- During Quality Assessment process the following outputs/project products should be examined: competence matrix, syllabuses, learning materials, tests, delivery and support system of Web-based courses, new BA/MA courses implementation and learning.
- Milestones: self-monitoring system established; feedback, questionnaire, annual reports; QA centres/responsible specialists in place; online evaluation in function; peer-reviews; Evaluation Board established; report of inter project coaching; external M&E reports.
- Indicators: number of self-monitoring reports, number of IEB meetings; number of questionnaires and surveys; number of reports of inter project coaching; external M&E reports; number of internal QA groups; number of specialists trained in QA.

4. Quality Assurance Indicators

The Logical Framework Matrix from the project application form (Annex 1) contains several indicators of progress. A list of formalised more detailed progress indicators, broken down into work packages, has been developed to allow reliable monitoring of the achievement of the main objectives.

WP1: Preparation	
PI Code	PI Title
WP1PI1	Selected DigEco curricula confirmed for jointly development and approved by the PCs
WP1PI2	Methodology and tools for undertaking changes in place
WP2: Development	
PI Code	PI Title
WP2PI1	DigEco curricula modernized and implemented using DE and multidisciplinary approach
WP2PI2	72 academics from UA, TJK trained at EU partners. 360 academics trained locally
WP2PI3	Laboratories modernized and number equipment installed at partner HEIs
WP2PI4	13 E-learning courses; textbook DigEco incl. PIE; methodology guidelines; handbooks downloaded on WEB platform and VPLP incl. PIE

WP2PI5	VPLP and VIDEL Lab incl.PIE in use by consortium
WP2PI6	Number of students, participating at DigEco piloting. Number of piloted DigEco curricular. Number of teachers students participating
WP3: Quality Plan	
PI Code	PI Title
WP3PI1	Approved Quality Control Plan on 3M1Y
WP3PI2	Joint Coordination Council settled on 3M1Y
WP3PI3	Key indicators of quality for DigEco curricula
WP3PI4	Quality control mechanism developed and implemented. Approved DigEco KPI
WP3PI5	Evaluation of outputs and outcomes from internal and external experts
WP4: Dissemination & Exploitation	
PI Code	PI Title
WP4PI1	DigEco HEIs and media publications, Number visitors of DigEco web/ project's social media groups. Feedbacks and evaluation held by EU experts
WP4PI2	Experience gained through academic staff exchange, shared with colleagues from partner institution and representatives of the HE beneficiaries
WP4PI3	Representatives from relevant DE institutions and from HEIs beneficiaries (students, labor market etc) informed about project results
WP4PI4	Number of dissemination events and participants. Registration at national/international conferences. Number of articles written
WP4PI5	Number of stakeholders involved in DigEco+. Number of refresh DigEco courses for graduates adapted according to stakeholders needs
WP5: Management	
PI Code	PI Title
WP5PI1	Distribution of tasks among partners settled before 3M1Y
WP5PI2	Consortium meetings held on schedule
WP5PI3	Descriptive and financial reports elaborated. Number of financial/administrative reports
WP5PI4	Quality of conducted external financial control
WP5PI5	Progress reports and monitoring from NEO and EACEA

5. Quality Assurance during the Project

5.1. Internal QA system: Self-Monitoring Procedure

Partner universities are responsible for the activities assigned in the different WPs and Tasks, including the related M&E (Monitoring & Evaluation) and QA activities. Partners are also responsible for periodical monitoring and self-assessment of the Project implementation, also contributing with comments and inputs related to management, communication and impact issues.

As WP Leader, P3 coordinates and oversees the implementation of the Project’s M&E and QA strategy, including the drafting of the QA Plan, and of the Interim and Final Quality Reports (Deliverables).

The Project Coordinator (P1) is responsible of the overall supervision of M&E and QA activities at Project level. In close cooperation with the M&E and QA Leader and the PSC, the task of the Coordinator is to ensure compliance with the overall Project plans, and to avoid deviation, anticipate risks and devise mitigation measures.

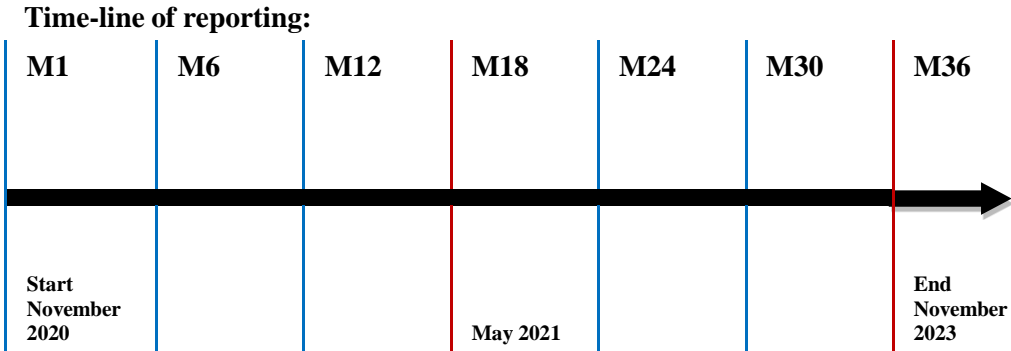
WP leaders are responsible for the quality of the activities carried out in their respective WP and of the quality of the results and the deliverables. They ensure that monitoring, evaluation and quality activities are implemented coherently, reporting on them to the WP3 Leader. They also monitor KPIs and report to the WP3 Leader and the Project coordinator about possible risks, deviations and low-quality results. M&E and QA responsibility can be taken over directly by the WP Leader or, if deemed appropriate, be delegated to a WP team member.

Partners are responsible for the activities assigned in the different WPs and Tasks, including the related M&E and QA activities. Partners are also responsible for periodical monitoring and self-assessment of the Project implementation, also contributing with comments and inputs related to management, communication and impact issues.

Self-Monitoring reporting is consisting of:

- 1) Completed report on implemented project activities
- 2) Presentation based on the report
- 3) Feedback questionnaires from students/academics/stakeholders
- 4) Peer-reviews

Each partner university is responsible for periodic monitoring and self-evaluation of project implementation, and contribute with comments and input on management, communication and impact issues. Self-monitoring reports (M9, M18, M24, M30, M36) should be sent to the project coordinator and P3.



Plan of monitoring of the project activities:

	2021	2022	2023
Periodic reporting on the project achievements based on self-monitoring reports	15/11	15/11	15/05
Field monitoring visits (will be defined by the NEO of partner countries):			
	2021	2022	2023
Tajikistan	15/11	15/11	15/05
Ukraine	15/11	15/11	15/05
Interim reporting		15/05	
Final reporting			15/11
Annual reporting*	15/11	15/11	15/11

* This is the date of submitting final corrected version of report

5.2. Peer evaluation of new/modernized modules/courses/curricula

The quality assessment of new courses should be conducted by peer reviewers. Potential peer reviewers can be identified in the following ways:

- Create a list of potential peer reviewers (organizations or persons) that the target university considers competent enough to conduct a peer review of the new/modernized modules/courses/curricula. These could be representatives of research centers, universities in the country and outside the country, hospitals, ministries, etc.
- Define 1-3 peer reviewers and conduct negotiations with them of when to send them materials for a peer review

Suggested template of the list:

Organization (Name, Surname)	Contact info (email)	Planned date of peer review

What to provide for a peer review?

The target university has to provide at least:

- 1) Course description
- 2) List of quality indicators
- 3) Selected documents, which will correspond and support your quality indicators.

Annex 2 shows a template for a Peer review which will help to assess the quality of implementation of each curricula module (new and modernized modules/courses/curricula).

Award system of the peer review:

- Each module is assessed by each of your quality indicators;
- Five-point grading scale is used for the assessment (5 is the highest (excellent) point, 0- the lowest). This five-point grading scale should assess each indicator;
- After the assessment of all indicators, all points that they received should be summarized and divided by the number of indicators. Therefore, an arithmetic mean, which will be a “grade” for the module;
- Besides, peer reviewers should explain in detail their scores and leave their recommendations, suggestions about what should be done better in order to improve a module.

5.3. Questionnaires

In addition to the peer reviews, it is recommended that further surveys or questionnaires are used to capture the opinions and range of satisfaction with the project from other stakeholders/target groups. The questionnaires for evaluation of the content of educational disciplines can be prepared for:

1) Teachers, academic staff, experts:

- To determine the methodological relevance of the new and modernized modules/courses/curricula and the higher education degree standard
- To determine the relevance and effectiveness of educational content to obtain competencies according to the labour market

2) Employers

- To determine the level of necessity and the level of practical application of knowledge and skills acquired as a result of studying the new and modernized modules/courses/curricula, from the point of view of the employer
- To adapt educational content to the possibility of practical use of knowledge and skills, as a result of its study.

3) Students/applicants

- To determine how clear, useful and interesting the content of the new and modernized modules/courses/curricula is for students and applicants.

An example of a questionnaire for students can be seen in Annex 3.

5.4. External Monitoring

The DigEco consortium will appoint an external expert to prepare an independent assessment, including recommendations, of the project implementation results and overall performance against plans and objectives.

The external Expert must demonstrate some relevant skills, including:

- Robust understanding of quality processes, expected activities, outputs and quality review processes;
- Knowledge of the Bologna process, Erasmus+ projects, HE system, Quality Assurance (ESG)
- Proven professional experience in evaluation process and monitoring process of international collaborative projects, in order to efficiently evaluate the final products and contents of the training activities, publications and other materials, as well as to monitor the effectiveness of DigEco project management (previous experience in EU-funded project is an asset);
- Excellent English language and reporting skills;
- Ability to effectively communicate evaluation results and feedbacks; In order to provide a

professional and independent review, the external expert shall not have any concurrent contractual engagement with the Consortium members. This limitation does not apply in case of the selection of a company/agency.

The tasks of the external expert should be as follows:

- To review DigEco processes and products, according to the OECD/DAC evaluation criteria of relevance and fulfilment of objectives, development effectiveness, impact and sustainability, for project /programme evaluation;
- To provide quarterly feedbacks on quality assurance processes and methodologies;
- To prepare the intermediate (on Month 18) and final (on Month 36) external evaluation reports.

5.5. Risk Assessment and Management

WP Leaders will report on the M&E and QA for their respective WPs, activities and results. This constant monitoring, evaluation and quality control will allow to identify operational risks. Should this occur, the WP3 Leader will address the Coordinator and the Project Management Board to raise the issue. The Project Management Board will develop appropriate mitigation measures or appropriate venues to take advantage of opportunities, as provided for in the project's operational and technical management procedures.

In order to prevent the potential risks in the project implementation, a roadmap is foreseen, including: the interested WP/deliverable, the connected risks, its probability to occur, the impact in case of occurrence and the agreed DIGECO mitigation strategy, as shown in the table below.

Risk Management

No.	WP/ Deliverable	Risk	Probability	Impact	Mitigation Strategy
No. of WP/ Deliverable	Name of WP/ Deliverable	Risk description	Low/ Medium/ High	Low/ Medium/ High	Description of mitigation strategy

5.6. Deliverables of the M&E and QA System

- 1) **The DigEco Project Quality Plan** is drafted by P3 as WP3 Leader, with active contribution from all partners. The Plan introduces the set of working processes to ensure the Project quality standards. The main aim of the Plan is to monitor on a regular basis the implementation of the Project activities as well as the quality of results (deliverables) and outcomes.
- 2) **Interim Internal DIGECO Quality Reports:** Three Interim Reports (presentations) are envisaged at the end of each year of implementation. They are drafted by P3 as WP3 coordinator including also a M&E and QA component. The Interim Quality Reports will contain details about M&E and QA activities and results, as well as outline measures to be undertaken in order to improve – if needed – any aspects of the Project implementation (communication, relevance of deliverables, internal processes, etc.).
- 3) **External Quality Report:** The Mid-term External Quality Report will be drafted by the External Expert (EE). The Report will evaluate the Project implementation, providing an

external perspective to achievements so far reached, and the overall performance of the Project against objectives and plans. The Report will also provide recommendations on different aspects of project implementation, including quality of the Consortium, working relations, internal communication, implementation processes, results, etc. The Final External Quality Report will be drafted by the EE. In addition to capturing the overall quality of the Project in all its aspects, the Report will highlight lessons learned and good practices to inform the work of partners in further exploiting the Project results beyond its lifetime.

- 4) **The Final DigEco Quality Report** will be drafted by P3 as WP3 coordinator with active contribution from all partners. It will describe how M&E and QA activities have been carried out, the involvement of the Internal QA Committee, and the results of the peer reviews carried out by the External Quality Committee. The Report will also describe the results of the formative evaluations carried out during the Project, as well as the results of the summative evaluation at the end of the Project, to identify lessons learned and good practices that will inform the exploitation of results beyond the Project's lifetime.

6. Methodology and Tools of Quality Assurance

The M&E and QA activities, carried out in the DigEco Project, are aligned with the responsibilities and tasks of the partners in carrying out the activities and producing the deliverables, as envisaged in the Project Description and in the Partner agreements. Results and outcomes of the M&E activities are disseminated to the Project members during consortium meetings and/or via e-mail.

In order to support pro-active participation and avoid bureaucratization, in reporting and disseminating priority will be given to qualitative feedbacks and to proposals and suggestions, as well as to risk identification (if a possibility arises). Thus, in addition to proposed issues and topic for assessment, all M&E tools provide adequate room to collect comments on strong/weak points, as well as suggestions and proposals for improvements, etc.

M&E and QA procedure will address specifically the following processes and activities:

- General Consortium meetings
- Tangible deliverables (results)
- Dissemination events
- Internal six-month partner evaluation

Other activities may be considered for evaluation at later stages of project implementation (e.g. focus groups, workshops, training seminars, etc.) if deemed appropriate and agreed between the respective task leaders, WP3 leader and project coordinator.

6.1. Regular Consortium Meetings

Regular Consortium Meetings should be held during the Project's lifecycle, organized either on-site or on-line. After these meetings, the individual assessment of participants should be performed. Possible questions are:

- Was the meeting properly structured and organized (time planning, partners' roles, etc.)?
- Was the agenda well prepared, comprehensive and conclusive?
- Were the agenda and relevant information circulated in due time?
- Were the presentations useful and informative?
- Were the partners prepared and knowledgeable about their allocated tasks?

- Was there enough time for discussions and exchange of ideas?
- Were upcoming tasks and partners' roles clearly explained and agreed?
- Did the meeting as a whole achieve the expected outcomes?
- Was the web platform suitable (*on-line meetings*)?
- Was the venue suitable (comfort, room for networking) (*on-site meetings*)?
- Etc.

Quality criteria relate to preparation, implementation and follow-up and logistics, as follows:

- preparation: agenda, participants' roles, time planning, circulation of documents;
- implementation: time management, presentations, discussions, partners' preparation, partners' participation, inputs for follow up, overall assessment;
- logistics: on-site meetings: venue, equipment, catering, room for networking; on-line meetings: web platform and chat (usability, operation).

The Coordinator and WP3 Leader (P3) will send the invitation to the on-line assessment and process the collected data. The results will be circulated among partners.

6.2. Internal Periodical Evaluation

As already described before, monitoring reports are foreseen to be prepared by the partners and submitted to the project coordinator. These reports will feed into the interim and final reports that will be prepared by the project coordinator. To contribute to the monitoring of the project activities, the project implementation will also be assessed through an online questionnaire for individual quality assessment (Annex 4).

Quality criteria relate to the following topics:

- Project management (time scheduling, task assignment, work process, deadlines, consultation, decision-making, risk management)
- Financial issues
- Communication (partners, project coordinator)
- Overall functioning of the partnership

Additional topics may be included, as deemed relevant to the Project specific implementation phases and may concern such additional topics, as follows:

- New collaboration opportunities
- Quality and impact of dissemination activities
- Quality and impact of sustainability activities
- New networking opportunities with stakeholders
- New cooperation opportunities among partners

The periodical implementation the on-line assessment exercise will take place concurrently.

6.3. Dissemination Events

Effective dissemination is essential in order to make sure that the project and their effect will be visible. The Digeco consortium will be disseminating the results of the project to multiple audiences, via different channels, at different intervals, etc. The aim of this dissemination strategy is to maximize the impact, visibility and credibility of the project. The objectives of the strategy are as follows:

- Design, develop and regularly update the DigEco website;
- Share information about the project and publish its findings via both traditional media (e.g. press relation) and digital media (e.g. social media);
- Transfer knowledge to industry about changes in academic area - the creation of new training materials, educational resources and the new curricula;
- Support the development of a strategy for the exploitation.

Following Dissemination methods were defined for DigEco Project:

Methods	Purpose
Project website	A project website is one of the most universal dissemination tools. It will contain information for different audiences. It will be updated regularly.
Universities' websites	Information dedicated for academic community, recommended in national languages and in English
Social media	Information for project partners, engagement of partners in project planning and improvement.
Press releases	Flyers in printed form can be handed out at conferences, other events or to colleagues / students at each institution. An electronic version (e.g. PDF file) can also be circulated electronically via the project website.
Programme meetings	Programme meetings are excellent opportunities for project partners to learn from each other, discuss common issues, and get feedback on their work.
Conference presentations / posters	National and international conferences are an important opportunity to share achievements with experts in the field.
Events, including lectures, demonstration and workshops	There are useful in the project to get feedback from students and other stakeholders (including industry) on functionality and usability

7. Evaluation of outcomes and impacts

Impact evaluation is an evidence-based procedure intended to measure the effectiveness of the project in achieving its strategic and operational goals, and in achieving the expected impact on partnership organisations and target groups.

7.1. Impact Analysis and Results

In the context of the DigEco Project, impact analysis will revolve around following areas, reflecting the architecture of the Project design:

- The Project's performance against the defined Quality Assurance Indicators, i.e. the capacity of the Project partners to perform the planned activities within the given deadlines and quality consistency;
- The impact on partnership organizations (Consortium partners), focusing on the integration of project results into internal processes;
- The impact on the wider target groups (other than partnership organizations), particularly the adoption and actual use of project results by relevant stakeholders, or a possible future valorization of project results;
- The impact on the policy objectives/areas defined for KA2 by the Call for Proposals 2020 Erasmus+ Programme;

- results to be obtained from this analysis are part of the overall QA management procedure and will support the partnership to early identify areas for improvement;
- Implement corrective actions to align project results with objectives, if considered necessary;
- Identify how to maximise post-Project impact based on the feedback from stakeholders and target groups.

7.2. Impact Evaluation, Dissemination and Sustainability

As anticipated in the Introduction to this document, the M&E and QA procedures and tools described in this document focuses on Project implementation and impacts with regard to deliverables; management; consortium internal communication and cooperation; impact of project implementation and deliveries to internal and external target groups.

The project interim and final reporting will include inputs and comments results on all WPs and provide an overall integrated view on project implementation.

Finally, it should be reiterated that the purpose of M&E and QA is to support the execution of the project and - most importantly - the achievement of the intended objectives: M&E and QA are an essential and value-adding process, not a formal procedure. The QA plan will be consistently monitored and revised at any time deemed necessary according to input from the Project Coordinator and Project Management Board.

Based on the longstanding-experience matured in other similar EU projects, the QA Plan of DigEco Project and the impact analysis will be enriched and developed based on the results of the M&E itself starting from the second year of implementation onward.

Annex 1 Plan of quality control on DigEco:

The target groups –are the students, who are taught in the DigEco program, employers and recipients of DigEco results

The subject of evaluation: the quality of students teaching with application of the new methods, the quality of DigEco functioning,

QC Group will prepare a report on the results of internal and external examination of the quality of pilot teaching

Activities	Period
1.Sampling assessment procedures and assessors' marking of student work to ensure that the process exemplifies good practice, and is also fair, reliable and consistent	During the project
2.Recording the observation and standardization of learners work to ensure all assessors and assessment decisions are constant (records of learner's practical work must recorded and, where possible, photographic evidence can be used)	During the project
3. Providing feedback to assessors and to the course team on the effectiveness of their assessment processes and how they might be further improved	During the project
4. Providing a key link with the P4-P11 Internal Quality Assurer and the External Evaluator, ensuring that the former quality assurance requirements are fulfilled	During the project
5. Avaluating project results in the context of the implementation of the provisions of the Bologna Process and the Law of Ukraine "On Education"	During the project
The students questioning:	
Activities	Period
1. Internal testing – at the beginning of and at the end of each term	09.2021. 09.2022 06.2022. 06.2023
2. External testing –	12.2022-at the end of the period of students' teaching (after diplomas' defense and prior to the ceremony of diplomas presentation).
Teachers questioning :	
3. Internal testing –	02.2021 up to the beginning of training sessions; 05.2021 – after participation in training sessions; 09.2021. 09.2022 –prior to pilot; 06.2022. 06.2023 -at the end of each term.
4. External testing–	at the end of tuition period (after diplomas' defense and prior to the ceremony of diplomas presentation)
Employers questioning	
5. Internal testing at the beginning of learning –	at the end of students pilot teaching.

6. External testing	12.2022 at the end of tuition period (after diplomas' defense and prior to the ceremony of diplomas presentation
7. Internal testing	filling in questionnaires at each visit to P, beginning with 02.2021.

Annex 2: Quality assessment of implementation of new and modernized DigEco courses. Peer review template (Example):

Name of the university: _____
Module/curriculum/course title: _xxxxx_____

Award criteria:	Score	Max
Indicator 1: Balance of student's workload	4	5
Comments/recommendations of a peer reviewer		
Indicator 2: Application of ECTS	4	5
Comments/recommendations of a peer reviewer		
Indicator 3: Usage of information about the latest (up to 5 years old) results of scientific research of foreign scientists in teaching materials	3	5
Comments/recommendations of a peer reviewer		
Indicator 4: Usage of the university online educational platform during the educational process	5	5
Comments/recommendations of a peer reviewer		
Indicator 5: Ability of students to influence the educational content or process	4	5
Comments/recommendations of a peer reviewer		
Indicator 6: Partial teaching and implementation of reporting works in English	4	5
Comments/recommendations of a peer reviewer		

Indicator 7: Portfolio of student's completed practical works in a group	4	5
Comments/recommendations of a peer reviewer		
Indicator 8: Correspondence to the national norms (standards) of education	4	5
Comments/recommendations of a peer reviewer		
Indicator 9: Consideration of a new module by the university council of experts with the participation of potential employers (chair meeting, meeting of educational council)	3	5
Comments/recommendations of a peer reviewer		
Indicator 10: Publications of teaching staff or students, participation in conferences	5	5
Comments/recommendations of a peer reviewer		
Total score:	40* (max. 50)	
Number of indicators	10**	
Arithmetic Mean	4***	
Summary of the peer reviewer:		

*Score of the Module "xxxxx" = 40

**Number of quality indicators: 10

*** $40/10 = 4$ (arithmetic mean = "grade" of xxxxx modul

Annex 3: Example for a questionnaire for students/applicants for evaluation of the content of DigEco educational disciplines (suggested to be anonymous)

Your education, field of research

The name of the university and curricula you evaluate:

Give a grade from 1 to 5 of the content of the discipline using the following the criteria

(1 - lowest score, 5 - highest score)

1. You clearly understand what you will obtain as a result of completing the program/module/course

- 1
- 2
- 3
- 4
- 5

2. Educational content is interesting for you

- 1
- 2
- 3
- 4
- 5

3. The knowledge and skills acquired as a result of program/module/course will be useful to you in your future career

- 1
- 2
- 3
- 4
- 5

4. The university has all the necessary infrastructure (for instance, equipment, library, internet access, access to the online resources, etc.) for the research within the program

- 1
- 2
- 3
- 4
- 5

5. The program offers opportunities for internships or research in collaboration with the companies, potential employees or government agencies

- 1
- 2
- 3
- 4
- 5

6. The program offers opportunities for collaboration with universities, companies, and/or projects at the international level

(DIGECO)

- 1
- 2
- 3
- 4
- 5

7. Educational content is relevant and reflects current developments in the industry

- 1
- 2
- 3
- 4
- 5

8. Supervisors, teachers have the necessary level of expertise in the subject and research support

- 1
- 2
- 3
- 4
- 5

9. Supervisors, teachers are motivated and actively involved in the research process, running of the curricula

- 1
- 2
- 3
- 4
- 5

10. The list of information sources/literature is up-to-date and sufficient to study the discipline

- 1
- 2
- 3
- 4
- 5

11. Hours between lectures, practical / laboratory work, independent work is distributed in a balanced way

- 1
- 2
- 3
- 4
- 5

12. Your comments for improving the content of the curricula

Annex 4: Internal periodical evaluation questionnaire for partner organizations

Partner Organization: _____

Name of the person filling the form: _____

	It fully met expectations 5	It widely met expectations 4	It partly met expectations 3	It hardly met expectations 2	It didn't met expectations at all 1	Not applicable -
Project management (e.g., scheduling, task assignment, work process & deadline monitoring)						
Governance (e.g., decision-making, consultation and problem-solving)						
Management of financial and administrative issues						
Partners' collaborative and pro-active attitude and behaviors						
Communication among partners and with the Project coordinator						
Quality & impact of the dissemination activities (e.g., website, presentations at conferences, etc)						
New networking opportunities with education and industry stakeholders cross-border						
New networking and collaboration opportunities among partners						
Quality & impact of the sustainability aspects						
Improvement of technical/professional skills in your organization						
Additional comments (challenges faced, positive aspects, suggestions for improvement, etc):						

P	HEI	Responsible person	position	email
1	Mykolas Romeris University	prof. Aurelija Puraite	Vice Dean of Public Security Academy MRU	aurelija.puraite@mruni.eu
2	University of Applied Sciences Hamburg	Dr. Martin Schultz, Martin.Schultz	Prof.	Martin.Schultz@haw-hamburg.de
3	University of Maribor	Prof. Dr. Gregor Polančič,	Prof.	gregor.polancic@um.si
4	Priazovskiy State Technical University	Victoria Gonchar	Prof., Doctor of Economic Sciences	gonchar.mariupol@gmail.com
5	Admiral Makarov National University Of Shipbuilding	Liliya M. Filipishyna +380974705200	Professor. Doctor of Economic Sciences.	ontariofilpi@ukr.net
6	Zhytomir Polytechnic State University	Andrii Morozov,	PhD, Ass. Prof., Vice Rector in Scientific and Pedagogical	morozov@ztu.edu.ua
7	Kamianets-Podilskiy National Ivan Ohienko University	Natalia Mazur	Doctor of Economic Sciences, Professor,	mazur@kpnu.edu.ua
8	Dmytro Motornyi Tavria State Agrotechnological University	Tetiana Kulsh	PhD, Ass. Prof in Management and Marketing	tetiana.kulish@tsatu.edu.ua
9	Tajik Technical University named after academician M.Osimi	Nargiz Mukimova	Head of the Dept. of Economics and Management of Productions	nargizmukimova@gmail.com
10	Tajik State University of Finance and Economics	Alamshoev Anis Kurboniddinovich	P.h.D., in Economics, Associate professor of the Department of International Finance and Credit Relation.	alamshoev1987@gmail.com
11+	Khujand Polytechnic Institute of Tajik Technical University	Akhlitdin NIZAMITDINOV	Head of the Department of Digital Economy.	ahlidin@gmail.com
12	NGO "Vinnytsia City Organization "Parostok"	Svitlana Ozharivska	Social dept	ozh.svetlana@gmail.com
14	LLC "Company M-Master"	Yevgen Laschenko	+380963827400	evgeniy.laschenko@m-master.com.ua
15	Neksigol Navovar	Mahinakhon Suleymanova,	Chairman of the Board.	mahinakhon.suleymanova@neksigol.tj
16	Ministry of Digital Transformation of Ukraine	Ruslana Korenchuk	Digital Dept	korenchuk@thedigital.gov.ua