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Coordinator:	**Phd Bojan Prlincevic, prof.a.s.**
Beneficiaries:	**SVEUCILISTE U RIJECI-TEHNICKI FAKULTET (UNIRI RITEH), Hrvatska** **ETHNIKO KAI KAPODISTRIAKO PANEPISTIMIO ATHINON (NKUA),Grcka** **VSB - TECHNICAL UNIVERSITY OF OSTRAVA (VSB - TUO), Ceska** **UNIVERSIDAD POLITECNICA DE MADRID (UPM), Spain,** **AKADEMIJA TEHNICKO-VASPITACKIH STRUKOVNIH STUDIJA (AATPS), Serbia,** **AKADEMIJA TEHNICKO-UMETNICKIH STRUKOVNIH STUDIJA (ATUSS), Serbia,** **UNIVERSITY OF MITROVICA (UPKM), Kosovo *,** **UNIVERZITET U ISTOCNOM SARAJEVU (UES), Bosnia and Herzegovina,** **University of Mostar (SUM), Bosnia and Herzegovina,** **UNIVERZITET SINERGIJA BIJELJINA (USB), Bosnia and Herzegovina,** **LUARASI UNIVERSITY (LRS), Albania,** **UNIVERSITETI METROPOLITAN TIRANA (UMT), Albania,** **FAKULTET PRIMIJENJENE NAUKE PODGORICA (FPRN), Montenegro.**

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Erasmus + Program

Capacity Building in Higher Education

NEW ENERGY COMPETENCE SYSTEM AND TECHNOLOGY FOR WB ENERGY STABILITY SYSTEM CURRICULUM REFORM

(NEST4WB)

SUSTAINABILITY PLAN

~ draft ~

Project Number: 101129321

(Call: Erasmus-Edu-2023-CBHE)

Leposavić, 2024

www.nest4wb.akademijakm.edu.rs

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SUMMARY

Erasmus+ project "New energy competence system and technology for WB energy stability system curricula reform"– NEST4WB, aims to modernize the study programs of the Higher Education Institution of the WB through the introduction of new courses related to the Energy Sector and the ICT sector in order to digitalize the energy sector at the bachelor and master levels of education at the Higher Education Institution of the WB. This report contains a Sustainability plan for HEIs and financial sustainability plans about modernizing the study programs courses, related to the Energy Sector and the ICT sector in order to digitize the energy sector at the bachelor and master levels of education.

The sustainability of NEST4WB will be based on the full realization of the set goals, the strengthening of the internationalization of the institutions of the consortium members and their synergy in the future. The aspect of sustainability will be taken care of by the PM committee, as well as by each member of the consortium both at the local, national and regional level. For this purpose, a sustainability plan for all project results is being drawn up with clear mechanisms and achieving the desired, much-needed competencies necessary for the further development of the region. In order to achieve this goal, full synergy and experience of higher education institutions that are members of the consortium is needed, as well as the support and active involvement of representatives of the energy sector.

The desired competitions will be achieved in the first place through the development of new and innovating existing curricula, which will create the conditions for creating a highly qualified workforce ready to use new technologies and apply new approaches in the production and management of energy resources. By improving the existing competence of undergraduate and master's students in the field of digitization of the energy sector, experts ready for the current challenges and needs of the energy sector will be created. In this way, the first step will be taken in raising the capacity of institutions and the economy in terms of strengthening and saving energy, raising the level of energy efficiency, as well as energy transition, in terms of more responsible production management and the entire energy transition of society, i.e. transition to different types of renewable energy sources. In this way, an appropriate contribution will be made to reducing the WB countries' energy dependence on energy imports.

Newly formed laboratories and training centers will represent the basis for acquiring much-needed practical knowledge and skills for teachers and students as well as for professionals from the energy sector. Modern equipment and software packages that will be acquired in the framework of NEST4WB will represent a good opportunity for development and testing of new solutions and technologies, development of the professional base, promotion of future results.

Furthermore, sustainability is reflected through its social dimensions, economic and use value. In this way, space is created for the synergy of educational institutions from different fields in the development of new products, new study programs, new lifelong learning courses and generally new values. The aspect of improving student mobility, through its intercultural dimension, opens up space for synergism, young people of different nationalities and cultures. Practically, the results of NEST4WB in themselves are the result of synergy and as such open

space for the development of long-term strategic partnerships and synergy between different areas of science, work and life. Given that the results of the NEST4WB project encourage the digitization of the energy sector, its realization opens up space for synergy between IT companies and the energy sector in the field of exchange and development of ideas, through the launch of start-up companies.

To support the achievement of these goals, an e-knowledge platform will be developed, with a high degree of interactivity, SEP/SEM as a form of support for the implementation of the teaching process, development and exchange of innovative ideas and solutions, both among students, teachers, and between the academic community and industry, in both directions and the wider social community. The developed content will be available to students of all PA institutions, and through the e-knowledge platform through appropriate communities such as energy communities and the general population interested in advancement in this area. In this way, transnational cooperation is enabled, which ensures the transfer of knowledge and good practices in a wide area of the WB.

Finally, through the improvement of existing teaching methods and the creation of conditions for the development of a hybrid learning model, conditions will be created for more efficient acquisition of skills, receiving knowledge from various reference sources (practice, foreign higher education institutions, conferences and workshops, project activities) in the field of responsible energy management resources and the development of conditions and awareness of the importance of energy independence. Improving the efficiency of online learning, as well as creating adequate content adapted to the concept of online learning, will be followed by raising the ethical standards of the teaching process in terms of commitment and building trust in this concept of learning and work, as well as expanding the area of its application (lifelong learning).

This sustainability plan for an Erasmus+ project NEST4WB focused on capacity building for higher education institutions includes measures to ensure the project's long-term impact and effectiveness, based on the following key elements:

1. Project management, quality assurance, and monitoring and evaluation strategies. This part describes the measures foreseen to ensure that the project implementation is of high quality and completed in time. Describes the methods to ensure good quality, monitoring, planning and control. Describes the evaluation methods and indicators (quantitative and qualitative) to monitor and verify the outreach and coverage of the activities and results (including unit of measurement, baseline and target values).
2. The second part is about dissemination activities that will be used for promotion the activities about introduction of new courses related to the Energy Sector and the ICT sector in order to digitize the energy sector at the bachelor and master levels of education at the Higher Education Institution of the WB.
3. The third part refers to the Academic plan of the Higher Education Institution of the WB (HEI plan), followed by sustainability goals for each of the institutions;
4. The fifth part refers to financial sustainability, while
5. The sixth part elaborates the common plan for fostering the cooperation with the business partners.

1. PROJECT MANAGEMENT, QUALITY ASSURANCE, MONITORING AND EVALUATION STRATEGY

NEST4WB will employ a blend of contemporary agile management approaches utilizing various real-time communication methods throughout the process. Each partner will participate equally in all activities, yet their involvement in implementing work packages will vary in terms of scope and specific roles. Competencies were selected to ensure an optimal balance between each partner's specific expertise and current capacities, aligned with their interests and the project outcomes. The initial phase involves establishing the management board of NEST4WB, comprising representatives from all consortium members.

Two foundational documents will govern this domain: the Project Management Plan (PMP) and the Quality Assurance Plan (QAP). These documents will detail mechanisms for monitoring activity implementation and ensuring the quality of executed tasks. The project management component will consist of two distinct bodies: the Project Management (PM) team and the Quality Assurance Committee (QAC) team.

The PM team's role is to oversee the execution of all project activities according to the established schedule. Concurrently, the QAC team will assess the implemented activities and the outcomes achieved. The PM team will drive the strategic management of the project, ensuring adherence to the project's work plan and progression towards its objectives.

These two teams will consist of representatives of all partners, with the fact that members of one team will not be able to be members of the other team. In this way, independent assessment and evaluation of the work will be ensured. Regular reports on the progress of project implementation and reports on achieved results will be made. Reporting will be periodic every six months, through online communication channels. Progress reports will be discussed at PM comity meetings (every six months), while Achievement reports will be discussed at PM comity and QAC meetings.

The choice of methodology will be subordinated to the permanent monitoring of the process. Monitoring the compliance of the implemented with the plan, monitoring the quality of the implemented, monitoring the degree of involvement of all participants in the implementation of the activities, financial monitoring, monitoring the organizational behaviour of the teams responsible for the implementation of work packages and activities.

The financial flow of project implementation will be measured and managed by comparing the results and the flow of activities and real costs. Financial reports on spent funds will be an integral part of the report on the progress of project implementation and will be submitted every six months Online communication channels will be used for this purpose. Otherwise, the communication system itself will be based on the OSI model, which will ensure an efficient management process. Proceedings in the event of the occurrence of a certain risk that may affect the implementation of the project will be in accordance with the QAP, within which the entire set of risks will be foreseen, as well as the mechanisms for their prevention and handling. A set of procedures will be defined, which will be applied at that time, in accordance with the decision of the PM comity and the agreement of the QAC team.

Project management is conceived based on the OSI communication model (Open Systems Interconnection), which is used in communication within network computer systems. This implies that project management, as well as communication between consortium members, will be multi-layered and dynamic. The first two layers are basic management and will deal exclusively with activities and issues related to the realization of the results of the project and the quality of the project. This implies the adoption of clear procedures, monitoring mechanisms, control mechanisms and reporting mechanisms, as well as mechanisms for preventing potential risks.

Therefore, within this level of management, in cooperation with all project partners, project coordinator will develop special communication channels between partners that will ensure:

• Continuous communication between PC-program countries and PA-partner countries partners;
• Central accounting / financial support, counselling and monitoring of budget execution;
• Preparation, implementation and monitoring of the meeting of the consortium and other bodies;
• Preparation / publication of reports.

Representatives of all partners will be appointed to these teams, and the chairman will be ASSKM for the management part and VSB-TUO for the team dealing with quality issues. At the third level, the formation of institutional teams responsible for the implementation of activities within the work packages at the level of their institutions will be implemented. To that end, team leaders will be appointed who will organize, monitor and report on the implementation process within their working groups. For day-to-day decision making, these team leaders will be able to seek guidance from the coordinator as well as the project management team. At the fourth level, a team for administrative technical support will be formed, composed of partners from PC, PA, which will oversee providing all legal and financial information related to the implementation of the project, to all project participants, especially PA, as well as conducting periodic (six-monthly) financial control of execution of the project budget in accordance with the activity plan.

The task of this team will also be to provide support to PA partners regarding the launch and use of the e-knowledge platform. Continuous communication at all levels will be facilitated by a combination of f2f discussions, team meetings, meetings through ,,meeting platforms, electronic communication as well as through a communication website and e-knowledge platform. As part of the project, three round tables are planned in the organization of the partners PC, PA, which will be an opportunity for analysis, submission of reports and solving possible problems in the implementation.

2. DISSEMINATION PLAN

Energy through digitization, which would achieve that experts from the Western Balkans would be highly qualified. Also, NEST4WB moves the focus of the spectrum of energy competences from the field of clean energy, as is the case everywhere at the WB, to part of the curriculum in the field of digitalization and information technologies, which introduces the fields of energy into other fields of technology and will thereby create conditions for a more efficient response to energy challenges in the open the path to an energy-responsible society.

NEST4WB predicts that some elements of energy should become part of cross-curricular competencies in the future. Of particular importance is the application aspect of NEST4WB, which is reflected through the creation of application elements of the qualification, i.e., the ability of students to practically apply the acquired knowledge in real time and a working environment. For this reason, the quality of formation and sustainability of laboratories and training centres in synergy with partners from PC and industry will represent one of the keys and driving factors of NEST4WB. The project overall goal clearly defines the project direct and indirect beneficiaries and stakeholders, i.e. target groups, towards whom main dissemination activities are going to be directed.

The dissemination of the project will encompass activities at institutional, national, and international levels, with a primary focus on promoting both the project itself and its participants. The goal is to enhance public awareness regarding the potential benefits derived from the project outcomes. An initial task within this work package involves establishing the project website, serving as a comprehensive platform to showcase all project-related activities. Notably, significant efforts will be directed towards promoting the project across different social networks. The awareness campaign will extend to traditional media channels, including television, radio, and digital news channels.

Ensuring the efficient dissemination of project results is crucial for transferring the developed knowledge to the intended target groups. This dissemination is vital for garnering acceptance and integrating the knowledge into regular use, thereby optimizing the project's impact and playing a pivotal role in determining its overall success. By addressing these objectives, a dissemination and exploitation plan aims to maximize the impact and sustainability of research and development projects, ensuring that the knowledge and outcomes generated are effectively utilized and contribute to broader societal and economic goals.

The dissemination will be organized on different levels (department, institutional, local, regional, national, and international), aimed at different target groups (academic staff, current and prospective students, universities in partner countries, industrial and business communities) and carried out during and post the project.

Main target groups aimed to be tackled with dissemination activities are:

- Students of participating WB HEIs,
- Academic staff of participating WB HEIs,
- Universities in surroundings,

- Industrial and business institutions in partner countries including techno parks, business incubators, foundations for the development of innovative businesses and start-ups, and similar,
- Individuals willing to up-skill themselves.

Different tools & channels will be used to reach out project target groups:

- Students at universities in WB countries: information sessions; partners' websites and social media; partners' media (i.e. newsletter, bulletins etc.); project website and social media; project newsletter;
- Staff of participating universities: university-level meetings and presentations; information sessions; partners' websites; intranet (if applicable); partners' media (i.e. newsletter, bulletins etc.); project website and social media; project newsletter;
- Industrial and business communities: information sessions; partners' and project websites and social media; project presentations at events of different level (local, national, international conferences); publications; project newsletter;
- Associated partners with their channels (websites, newsletters, meetings etc.).

The project website (https://nest4wb.akademijakm.edu.rs/) will provide up-to-date and comprehensive information about the project as well as the progress of activities. To ensure a unique visual identification of the project, a project logo will be designed. Through the implementation of promotions and campaigns aimed at promoting the results of the project, its additional values, perspectives of further development and raising general awareness, the results of the project will be placed in depth, which will maximize the target group. A special emphasis will be placed on the promotion of student mobility, which aim to encourage students to complete a complete module through international mobility in a new, innovative way.

Websites of the all partners are going to be linked to project website. All partners will regularly provide information for dissemination on website. Social networks of partners and stakeholders are going to be used for day-to-day communication. These portals should contain information relevant to the project NEST4WB that the higher education institution uses as well as promote events about WB energy stability system curricula reform.

All WB HEIs will analyse key issues related to Electrical engineering/power systems in their countries and analyse, modernize/develop and implement curricula related to Electrical engineering/power systems, prepare and conduct survey for digitalisation end energy saving community awareness. WBC will organize local workshops with Electrical engineering/power systems stakeholders and citizens, prepare popularisation events and materials, implement popularisation events/Green weeks, sign cooperation agreements with different Electrical engineering/power systems stakeholders, participate in project management meetings, prepare internal reports, as well as prepare and realize different dissemination activities.

Every HEI will de facto gain visibility in partner and program countries and beyond, thanks to the implemented dissemination and communication actions. At the same time, e-publications and online resources will ensure that the project results are disseminated beyond the duration of the project.

Furthermore, by creating an e-knowledge platform that should ensure the constant synergy of project results with all target groups on the one hand and the synergy of partners I make a decision on the other. The dissemination process will be based on an intensive digital campaign aimed both at the partner countries in the project and at the region in general. Each segment of the digital campaign will be part of a large system that will reach the widest target groups.

The development of the green footprint of institutions represents a new dimension in the dissemination of project results.

Newly formed laboratories and training centers will represent the basis for acquiring much-needed practical knowledge and skills for teachers and students as well as for professionals from the energy sector. Modern equipment and software packages that will be acquired in the framework of NEST4WB will represent a good opportunity for development and testing of new solutions and technologies, development of the professional base, promotion of future results.

By promoting the training of dedicated LLL (long life learning) professionals, conditions will be created for their popularization and raising the awareness of employees about the importance and possibilities of informal education and lifelong learning. By promoting the e-knowledge platform, as well as the improved model of practice and teaching of learning, a wide population within all target groups will be encouraged to use this extremely important result of the project as a valuable professional educational resource.

The promotion of these results to different target groups affects the popularity of what was done and, in the final result, a better position of the graduated students on the labour market. In order to evaluate the success of dissemination, surveys for feedback will be conducted periodically. The surveys will be conducted once by the end of the second year of the project and again at the end of the third year. Additionally, partners will analyze attendance at in-person events, such as round tables. Activities related to the promotion of student mobility, the promotion of LLL courses, the promotion of the e-knowledge platform, the promotion of the improved online learning model and the hybrid teaching model, contribute to the improvement of the teaching process, the intensive transfer of knowledge in relation to higher education and the economy, the strengthening of strategic regional partners, among educational and business entities, innovations in the teaching and production process and a better position of institutions on the market.

The successful implementation of these activities will ultimately influence the general awareness of society regarding the responsible use of energy resources, the energy transition, the strengthening of energy independence of society and the creation of a broad front for activism in this area, through the promotion of the Green Footprint of institutions - green practices, activities in the field, digitization, the Green Footprint of the project, as an example of good practice applicable in the wider environment.

Sustainability itself is reflected through its social dimensions, economic and use value. In this way, space is created for the synergy of educational institutions from different fields in the development of new products, new study programs, new lifelong learning courses and generally new values. Practically, the results of NEST4WB in themselves are the result of synergy and as such open space for the development of long-term strategic partnerships and synergy between

different areas of science, work and life. Given that the results of the NEST4WB project encourage the digitization of the energy sector, its realization opens up space for synergy between IT companies and the energy sector in the field of exchange and development of ideas, through the launch of start-up companies.

3. ACADEMIC PLAN FOR THE PROJECT LIFE

This chapter describes the actions that HEI institutions will undertake to maximize benefits from curricula reform related to energy sector, during and after the project life.

HEIs will improve the level of student competences and skills through modernization/development of Undergrad/Master studies curricula, increase the level of teaching staff expert and language skills, increase aims to substantially increase the awareness and understanding of target groups on electrical engineering/power systems issues thus creating favourable conditions for rapid improvement of, digitalisation of powers systems, education quality in WBC and to raise public awareness about the potential benefits of digitalisation of power systems through popularisation events (Green weeks etc.).

HEI plan is not only focused on the institutions, but students as well. This plan will ensure that curricula reform is properly implemented and actively used at every partner institution. Since every institution has different needs and practices, the HEI plan is created for each institution individually.

3.1 Akademija strukovnih studija kosovsko metohijska Leposavic AASKM, BE001

To reach the project goals, AASKM will work on:

- ✓ **Designing new modernized courses**

AASKM realizes its essential activity through the teaching process at two levels of study: the first degree of professional studies and specialist studies, the second in master's professional studies, successfully applying the concept of dual education, which is a synthesis between acquired theoretical and practical knowledge. Having in mind that this model of study is largely complementary to higher professional education, in cooperation with relevant partners from the economy, accredited appropriate study program are going to be defined, which will be implemented in AASKM with intensive cooperation with the economy, which is reflected in numerous signed contracts on business and technical cooperation. In the accreditation process that AASKM is going through, it is necessary to achieve compliance with the corresponding programs in Europe and with the local and regional labour market and the demands of the economy, which the Academy will achieve through immediate round tables and meetings. After that, the adopted structure of study program in the field of energy and ICT should undergo for accreditation, in order to ensure sustainability and include the developed curricula and programs in the regular teaching process.

- ✓ **Procurement of equipment in accordance with the designed courses**

After finalizing the list of equipment (in accordance with the designed courses) with the technical specification, AASKM will prepare and launch the tender documentation for the procurement of equipment. Laboratory instruments needed for educational purposes will be purchased and installed. The installed equipment will be used for training staff from economy.

- ✓ **Designing modern program of professional practices**

Academy has established strong cooperation with the industry. In addition to good theoretical background offered to students, this cooperation includes student practical placement, professional practice, training courses, as well as collaboration in the many professional activities. Bonded to long-standing tradition, the main characteristic of Academy is excellence in the education of experts in specific, applied fields, which is recognized by graduate students, leaders in the professional world. The internship is realized in two cycles, for which realization in the economy a mentor is responsible who monitors the work of the students, and on the basis of which report the student is evaluated on the exam.

- ✓ **Creating learning materials in accordance with the new/innovated courses**

AASKM will create learning materials in accordance with the new/innovated courses. The learning materials, a handbook, will be prepared in paper and electronic form. The material will be reviewed by EU partners and AP. The handbook for digitization in energy will be in B5 format and have an appropriate number of pages. The handbook will cover chapters defined by the curricula designed for defining new competencies. Partners from all WB HEIs will work on creating the handbook, which will be printed in local languages and in English. The handbook will be publicly published on the e-platform.

- ✓ **Establishing laboratories**

Academy is dedicated to the continuous upgrading of knowledge, teaching methodologies, teaching practices and positive learning outcomes. The established laboratories will provide training and development opportunities for those interested in the economy. The laboratories will have a designed concept that will support one-month courses in the Designing new modernized courses

- ✓ **Creating network with economy stakeholders and citizens and creating associations for energy saving and rationalization of energy consumption**

Local workshops with the aim to create a network with economy stakeholders and citizens and create associations for energy saving and rationalization of energy consumption in WB HEIs will be organized (at least one per each WB HEI). The workshops will be organized by WB HEIs in cooperation with high schools, NGOs, local self-governments, and business representatives related to the energy sector. At least 20 participants per local workshop are foreseen. Non-academic and associated partners will facilitate networking through the provision of links between WB HEIs and energy-saving stakeholders.

3.2 University of Mitrovica, UPKM, BE008

To reach the project goals, UPKM will work on:

- ✓ **Designing new modernized courses**

UPKM is the oldest educational institution in Kosovo. At the Faculty of Technical Sciences, it implements study programs of all study levels in the fields of Electrical Engineering (Energy, Telecommunications and Computer Science), Mechanical Engineering, Civil Engineering, Architecture, Protection, Mining and Traffic Engineering. At UPKM, study programs in the field of energy, telecommunications and multimedia technologies are implemented, on the basis of which will modernize study program with improved competences in the field of energy will be created.

- ✓ **Procurement of equipment in accordance with the designed courses**

After finalizing the list of equipment (in accordance with the designed courses) with the technical specification, UPKM will prepare and launch the tender documentation for the procurement of equipment. Laboratory instruments needed for educational purposes will be purchased and installed. The installed equipment will be used for training staff from economy.

- ✓ **Designing modern program of professional practices**

After designing new/innovated study programs, a modern program of professional practices will be developed. Business partners and associated partners have the role of presenting modern trends in the implementation of professional practice.

- ✓ **Creating learning materials in accordance with the new/innovated courses**

UPKM will create learning materials in accordance with the new/innovated courses. The learning materials, a handbook, will be prepared in paper and electronic form. The material will be reviewed by EU partners and AP. The handbook for digitization in energy will be in B5 format and have an appropriate number of pages. The handbook will cover chapters defined by the curricula designed for defining new competencies. Partners from all WB HEIs will work on creating the handbook, which will be printed in local languages and in English. The handbook will be publicly published on the e-platform.

- ✓ **Establishing laboratories**

The established laboratories will provide training and development opportunities for those interested in the economy. The laboratories will have a designed concept that will support one-month courses in the Designing new modernized courses

- ✓ **Creating network with economy stakeholders and citizens and creating associations for energy saving and rationalization of energy consumption**

Local workshops with the aim to create a network with economy stakeholders and citizens and create associations for energy saving and rationalization of energy consumption in WB HEIs will be organized (at least one per each WB HEI). The workshops will be organized by WB HEIs

in cooperation with high schools, NGOs, local self-governments, and business representatives related to the energy sector. At least 20 participants per local workshop are foreseen. Non-academic and associated partners will facilitate networking through the provision of links between WB HEIs and energy-saving stakeholders.

3.3 Univerzitet u Istočnom Sarajevu, UES, BE009

To reach the project goals, UES will work on:

- ✓ **Designing new modernized courses**

Expert team from University of East Sarajevo (UES) - Faculty of Electrical Engineering has over 25 years' experience in the field renewable energy sources (RES) and application power electronic converters in RES. Team had managed over 15 projects on international and national level. UES will modernize the study program "Renewable energy sources and smart power grids" (60 ECTS) in the 2nd study cycle (master's study).

- ✓ **Procurement of equipment in accordance with the designed courses**

After finalizing the list of equipment (in accordance with the designed courses) with the technical specification, UES will prepare and launch the tender documentation for the procurement of equipment. Laboratory instruments needed for educational purposes will be purchased and installed. The installed equipment will be used for training staff from economy.

- ✓ **Designing modern program of professional practices**

After designing new/innovated study programs, a modern program of professional practices will be developed. Business partners and associated partners have the role of presenting modern trends in the implementation of professional practice.

- ✓ **Creating learning materials in accordance with the new/innovated courses**

All WB HEIs will create learning materials in accordance with the new/innovated courses. The learning materials, a handbook, will be prepared in paper and electronic form. The material will be reviewed by EU partners and AP. The handbook for digitization in energy will be in B5 format and have an appropriate number of pages. The handbook will cover chapters defined by the curricula designed for defining new competencies. Partners from all WB HEIs will work on creating the handbook, which will be printed in local languages and in English. The handbook will be publicly published on the e-platform.

- ✓ **Establishing laboratories**

Established renewable energy laboratory "ELEMEND lab" provides an opportunity for undergraduate/graduate students and researchers to work with renewable energy sources. A dozen experiments can be conducted with 2 renewable energy sources in the laboratory and analytical studies can be supported with experimental studies. There are two clean and sustainable renewable energy sources as solar and wind energy used in the laboratory. Working principles are observed by operating the wind turbines and solar panels with different load values and parameters. The additional laboratory equipment will have a designed concept that will support one-month courses in the Designing new modernized courses.

- ✓ **Creating network with economy stakeholders and citizens and creating associations for energy saving and rationalization of energy consumption**

Local workshops with the aim to create a network with economy stakeholders and citizens and create associations for energy saving and rationalization of energy consumption in WB HEIs will be organized (at least one per each WB HEI). The workshops will be organized by WB HEIs in cooperation with high schools, NGOs, local self-governments, and business representatives related to the energy sector. At least 20 participants per local workshop are foreseen. Non-academic and associated partners will facilitate networking through the provision of links between WB HEIs and energy-saving stakeholders.

3.4 University of Mostar, SUM, BE010

To reach the project goals, SUM will work on:

- ✓ **Designing new modernized courses**

University of Mostar (SUM) is a higher education institution, which organizes and performs university studies, scientific and professional work. It is one of eight public Universities in BiH and the only one where Croatian is used as the official language. The University is founded by cantons in which majority of the Croatian people live. It consists of 10 faculties and the Academy of Fine Arts. Today, over 10000 students study at the University of Mostar. The educational process is conducted through the undergraduate and the graduate and postgraduate level. University of Mostar is internationally oriented and its intention is to become fully integrated into the European Higher Education Area.

Faculty of Mechanical Engineering, Computing and Electrical Engineering is department of the University whose primary activity is the education and training of mechanical engineers, computing science engineers, and electrical engineers. SUM intends to modernize the existing study program.

- ✓ **Procurement of equipment in accordance with the designed courses**

After finalizing the list of equipment (in accordance with the designed courses) with the technical specification, SUM will prepare and launch the tender documentation for the procurement of equipment. Laboratory instruments needed for educational purposes will be purchased and installed. The installed equipment will be used for training staff from economy.

- ✓ **Designing modern program of professional practices**

The basic prerequisite of faster development and to keep up with the developed world are well educated engineers. Through its work, Faculty tries to connect the education of the students with real needs of the job market. The Faculty is one of the founders Metal and plastic Cluster which gathers the most developed export-oriented companies in Bosnia and Herzegovina. Faculty project team in partnership with public company Elektroprivreda HZ HB developed pilot model for energy efficiency in buildings. After designing new/innovated study programs, a modern program of professional practices will be developed. Business partners and associated partners have the role of presenting modern trends in the implementation of professional practice.

- ✓ **Creating learning materials in accordance with the new/innovated courses**

All WB HEIs will create learning materials in accordance with the new/innovated courses. The learning materials, a handbook, will be prepared in paper and electronic form. The material will be reviewed by EU partners and AP. The handbook for digitization in energy will be in B5 format and have an appropriate number of pages. The handbook will cover chapters defined by the curricula designed for defining new competencies. Partners from all WB HEIs will work on

creating the handbook, which will be printed in local languages and in English. The handbook will be publicly published on the e-platform.

- ✓ **Establishing laboratories**

The established laboratories will provide training and development opportunities for those interested in the economy. The laboratories will have a designed concept that will support one-month courses in the Designing new modernized courses

- ✓ **Creating network with economy stakeholders and citizens and creating associations for energy saving and rationalization of energy consumption**

Local workshops with the aim to create a network with economy stakeholders and citizens and create associations for energy saving and rationalization of energy consumption in WB HEIs will be organized (at least one per each WB HEI). The workshops will be organized by WB HEIs in cooperation with high schools, NGOs, local self-governments, and business representatives related to the energy sector. At least 20 participants per local workshop are foreseen. Non-academic and associated partners will facilitate networking through the provision of links between WB HEIs and energy-saving stakeholders.

3.5 Univerzitet Sinergija Bijeljina, USB, BE011

To reach the project goals, USB will work on

- ✓ **Designing new modernized courses**

Sinergija University Bijeljina (USB) was founded in 2005, with the approval of the Ministry of Education and Culture of the Republika Srpska and with the support of Singidunum University from Belgrade. Sinergia University is a higher education institution that offers its students modern curricula and learning methods that are applied in developed University centers. The goal of the University is to train young people to be competitive on the market and able to engage in modern business processes.

Developing innovative student-cantered teaching and learning methodologies, including interdisciplinary, project-based, and competence-based learning (among others), while fully exploiting digital technologies. USB have experienced professors, capable of developing and realization of digital platform and tools. USB aims to modernise the existing study program.

- ✓ **Procurement of equipment in accordance with the designed courses**

After finalizing the list of equipment (in accordance with the designed courses) with the technical specification, USB will prepare and launch the tender documentation for the procurement of equipment. Laboratory instruments needed for educational purposes will be purchased and installed. The installed equipment will be used for training staff from economy.

- ✓ **Designing modern program of professional practices**

On the daily basis, USB conducts activities that are related to the providing students with labour market relevant skulls, cooperation with local companies where students can accomplish their professional practices and acquire practical knowledge. USB activities are primarily oriented towards the education of highly skilled personnel, experts for certain fields, who would contribute their knowledge to social and economic development and modernization of the Bosnia and Herzegovina. After designing new/innovated study programs, a modern program of professional practices will be developed. Business partners and associated partners have the role of presenting modern trends in the implementation of professional practice.

- ✓ **Creating learning materials in accordance with the new/innovated courses**

All WB HEIs will create learning materials in accordance with the new/innovated courses. The learning materials, a handbook, will be prepared in paper and electronic form. The material will be reviewed by EU partners and AP. The handbook for digitization in energy will be in B5 format and have an appropriate number of pages. The handbook will cover chapters defined by the curricula designed for defining new competencies. Partners from all WB HEIs will work on creating the handbook, which will be printed in local languages and in English. The handbook will be publicly published on the e-platform.

- ✓ **Establishing laboratories**

The established laboratories will provide training and development opportunities for those interested in the economy. The laboratories will have a designed concept that will support one-month courses in the Designing new modernized courses

- ✓ **Creating network with economy stakeholders and citizens and creating associations for energy saving and rationalization of energy consumption**

Local workshops with the aim to create a network with economy stakeholders and citizens and create associations for energy saving and rationalization of energy consumption in WB HEIs will be organized (at least one per each WB HEI). The workshops will be organized by WB HEIs in cooperation with high schools, NGOs, local self-governments, and business representatives related to the energy sector. At least 20 participants per local workshop are foreseen. Non-academic and associated partners will facilitate networking through the provision of links between WB HEIs and energy-saving stakeholders.

3.6 Luarasi University, LRS, BE012

To reach the project goals, Luarasi University (LRS) will implement the following measures tailored to its specific context and strengths:

- ✓ **Designing New Modernized Courses:**
  - Luarasi University will leverage its expertise in information technology and innovation to develop new courses that integrate advanced ICT methodologies and energy sector-specific content. This will involve close collaboration with industry experts to ensure relevance and applicability.
  - The newly developed courses will be notified to national bodies. Such a notification will be in compliance with national regulation, without overpassing the threshold that requires an approval.
- ✓ **Procurement of Equipment:**
  - Prepare detailed tender documentation to procure high-quality laboratory instruments and other educational tools. The procurement process will be transparent and competitive to ensure value for money.
- ✓ **Designing Modern Program of Professional Practices:**
  - Develop a comprehensive program of professional practices in partnership with leading companies in the energy and ICT sectors. This will provide students with hands-on experience and exposure to real-world challenges.
  - Implement mentorship programs where students are paired with industry professionals who can provide guidance, support, and insights into the practical aspects of their field of study.
- ✓ **Creating Learning Materials:**
  - Develop high-quality learning materials, including textbooks, digital resources, and interactive content, tailored to the new courses. These materials will be created in collaboration with faculty members and reviewed by external experts.
  - Ensure that all learning materials are available in both digital and print formats to accommodate different learning preferences and needs. The materials will be made accessible on the university's e-platform and library.
- ✓ **Establishing Laboratories:**
  - Set up state-of-the-art laboratories equipped with the latest technology to support practical learning and research. These facilities will be used for both academic purposes and professional training for industry stakeholders.

- Implement robust management and maintenance protocols to ensure that the laboratories remain functional and up-to-date with the latest advancements.

✓ **Creating Network with Economy Stakeholders and Citizens:**

- Organize regular workshops and seminars to engage with local communities, high schools, NGOs, and business representatives. These events will focus on energy saving, sustainability practices, and rationalization of energy consumption.
- Establish a network of economy stakeholders, including local businesses and government agencies, to foster collaboration and support for the university's initiatives. This network will facilitate knowledge exchange and resource sharing.
- Luarasi University will add a (VET) training course of about 60 hours in Digitalization and Smart Technologies for the Power Sector

3.7 Universiteti Metropolitan Tirana, MTU, BE013

To reach the project goals, MTU will work on:

- ✓ **Designing new modernized courses**

Metropolitan Tirana University is established in 2010, BE013 is a contemporary university, driven by the belief that education is a pivotal element for the sustainable economic and social development of a country. Currently, BE013 comprises of three Faculties: The Faculty of Civil Engineering and Architecture, the Faculty of Economics and the Faculty of Computer Science and IT and provides academic profiles in architecture & engineering, economics, and computer science. BE013 is an active contributor in the academic and professional formation of our students by adopting contemporary teaching methods and curricula. The academic programs are drafted with the best national and international expertise based on the needs of the market and the global trends of development.

Metropolitan Tirana University - MTU will introduce/innovate study program of Master of Science in power system engineering.

- ✓ **Procurement of equipment in accordance with the designed courses**

After finalizing the list of equipment (in accordance with the designed courses) with the technical specification, MTU will prepare and launch the tender documentation for the procurement of equipment. Laboratory instruments needed for educational purposes will be purchased and installed. The installed equipment will be used for training staff from economy.

- ✓ **Designing modern program of professional practices**

MTU has developed a various fields of expertise such as: ✓ Entrepreneurship & Innovation, on-going consultancy, support, and strategic visioning that all lead to the enhancing of the spirit of entrepreneurship. ✓ SMEs & Startups Start-up assistance, reliable business guidance through all stages of operation and custom-made training solutions enhances the viability and potential of SMEs. This expertise will support the designing new/innovated study programs, a modern program of professional practices will be developed. Business partners and associated partners have the role of presenting modern trends in the implementation of professional practice.

- ✓ **Creating learning materials in accordance with the new/innovated courses**

All WB HEIs will create learning materials in accordance with the new/innovated courses. The learning materials, a handbook, will be prepared in paper and electronic form. The material will be reviewed by EU partners and AP. The handbook for digitization in energy will be in B5 format and have an appropriate number of pages. The handbook will cover chapters defined by the curricula designed for defining new competencies. Partners from all WB HEIs will work on creating the handbook, which will be printed in local languages and in English. The handbook will be publicly published on the e-platform.

- ✓ **Establishing laboratories**

The established laboratories will provide training and development opportunities for those interested in the economy. The laboratories will have a designed concept that will support one-month courses in the Designing new modernized courses.

- ✓ **Creating network with economy stakeholders and citizens and creating associations for energy saving and rationalization of energy consumption**

Local workshops with the aim to create a network with economy stakeholders and citizens and create associations for energy saving and rationalization of energy consumption in WB HEIs will be organized (at least one per each WB HEI). The workshops will be organized by WB HEIs in cooperation with high schools, NGOs, local self-governments, and business representatives related to the energy sector. At least 20 participants per local workshop are foreseen. Non-academic and associated partners will facilitate networking through the provision of links between WB HEIs and energy-saving stakeholders.

3.8 Fakultet primijenjene nauke Podgorica, FPRN, BE014

To reach the project goals, FPRN will work on:

✓ **Designing new modernized courses**

The Faculty of Applied Sciences is an academic institution that is part of the University of Donja Gorica (BE014) in Podgorica, Montenegro. It was founded in 2016 with the goal of promoting interdisciplinary education. The faculty offers four study programs: Electrical Engineering and Computer Science, Mathematics, Applied Psychology, and Geodesy. FPRN aims to innovate the existing study program Electrical Engineering and Computer Science within the Faculty of Applied Science. The adopted structure of the study program in the field of energy and ICT should undergo approval of the Academic Council of the FPRN, and in accordance with the applicable law in case the amendment to the study program is in the amount of more than 30 ECTS accreditation by the national body.

✓ **Procurement of equipment in accordance with the designed courses**

After finalizing the list of equipment (in accordance with the designed courses) with the technical specification, FPRN will prepare and launch the tender documentation for the procurement of equipment. Laboratory instruments needed for educational purposes will be purchased and installed. The installed equipment will be used for training staff from economy.

✓ **Designing modern program of professional practices**

As an interdisciplinary institution, the Faculty of Applied Sciences collaborates closely with other faculties at the University of Donja Gorica, particularly the Faculty of Polytechnics and Faculty of Information Systems and Technologies. The Electrical Engineering and Computer Science program has its own laboratory equipped with modern equipment for research and education in the fields of electrical engineering and electronics. Additionally, students and professors have access to other University of Donja Gorica laboratories, such as the ProDe laboratory for 3D printing, and the National Competence Center in the area of high-performance computing, which provides expertise and resources for advanced computing projects. After designing new/innovated study programs, a modern program of professional practices will be developed. Business partners and associated partners have the role of presenting modern trends in the implementation of professional practice.

✓ **Creating learning materials in accordance with the new/innovated courses**

All WB HEIs will create learning materials in accordance with the new/innovated courses. The learning materials, a handbook, will be prepared in paper and electronic form. The material will be reviewed by EU partners and AP. The handbook for digitization in energy will be in B5 format and have an appropriate number of pages. The handbook will cover chapters defined by the curricula designed for defining new competencies. Partners from all WB HEIs will work on creating the handbook, which will be printed in local languages and in English. The handbook will be publicly published on the e-platform.

✓ **Establishing laboratories**

The established laboratories will provide training and development opportunities for those interested in the economy. The laboratories will have a designed concept that will support one-month courses in the Designing new modernized courses

- ✓ **Creating network with economy stakeholders and citizens and creating associations for energy saving and rationalization of energy consumption**

Local workshops with the aim to create a network with economy stakeholders and citizens and create associations for energy saving and rationalization of energy consumption in WB HEIs will be organized (at least one per each WB HEI). The workshops will be organized by WB HEIs in cooperation with high schools, NGOs, local self-governments, and business representatives related to the energy sector. At least 20 participants per local workshop are foreseen. Non-academic and associated partners will facilitate networking through the provision of links between WB HEIs and energy-saving stakeholders.

4. SUSTAINABILITY GOALS

Main sustainability goals are:

1. **institutional capacity development,**
2. **curriculum update,**
3. **e-learning sustainability,**
4. **extend the cooperation with other institutions**

4.1 Institutional capacity development

The main sustainability goal, which must be reached after the project ends is how to provide institutional capacity development using project results. There are several measures that can be done:

- ✓ use system for distance learning engagement, for providing base for developing some e-courses for LLL;
- ✓ organize internal workshops for teaching staff more often and create an innovation spirit, so the classes can be improved each year;
- ✓ work on optimizing teacher/student experience and success, emphasizing technical development in e-learning/teaching, using the European best practices and each HEI's experience;
- ✓ standardize processes for improving inclusivity, diversity, and participation and retention of individuals with challenges in learning;
- ✓ develop/increase the number of courses for which content will be recorded.
- ✓ promotion of study programs during the incoming years;
- ✓ taking care about labs (maintenance, upgrading with new equipment and new usage ideas);
- ✓ further development of study programs;
- ✓ create master study program/PhD study program;
- ✓ adapt the curricula to mirror the latest trends in distance education.

Measures that should be taken are per each WBHEI:

4.1.1 AASKM

In order to maintain the institutional capacity development, AASKM aims to take the following measures:

- ✓ **Strategic Planning**: Develop and implement comprehensive strategic plans that align with national and regional development goals. This includes setting clear objectives, identifying priorities, and establishing mechanisms for monitoring and evaluation.
- ✓ **Curriculum Development**: Review and update curricula to align with current and future labor market needs, technological advancements, and global trends. Encourage interdisciplinary approaches and the integration of practical skills into academic programs.

- ✓ **Academy Development**: Invest in continuous professional development for the Academy members to enhance teaching methodologies, research capabilities, and academic leadership skills. This could involve workshops, seminars, and partnerships with international experts and institutions.
- ✓ **Student Support Services**: Improve support services for students, including academic advising, career counseling, and extracurricular opportunities. Enhance facilities and resources for student learning and development.
- ✓ **Internationalization**: Promote internationalization through student and staff mobility programs, joint degrees, partnerships with foreign universities, and participation in international research networks. Encourage the exchange of knowledge and best practices.
- ✓ **Financial Sustainability**: Develop sustainable funding models and seek diversified sources of income to support institutional operations, infrastructure development, and academic initiatives. This may involve seeking public funding, private sector partnerships, and philanthropic support.
- ✓ **Information Management and Technology**: Enhance the use of information and communication technologies (ICT) for administrative efficiency, learning management systems, digital libraries, and online education. Invest in IT infrastructure and training for staff and students.
- ✓ **Community Engagement**: Strengthen relationships with local communities, businesses, and governmental agencies to address societal challenges, promote civic engagement, and contribute to regional development.

Implementing these measures requires collaboration among various stakeholders, including government authorities, academic staff, students, alumni, and the private sector.

4.1.2 UPKM, BE008

- ✓ UPKM has developed multimedia learning platform and smart classrooms (developed within Erasmus+ project SMARTEL), which could be used by students during the teaching process.
- ✓ Within this technical potential, there is basement for emphasizing technical development in e-learning/teaching, using the European best practices and each HEI's experience, and improvement of inclusivity, diversity, and participation of people with fewer opportunities.
- ✓ Also, this could be base for further development of the study programs with upgraded/new courses (through creation of the multimedia content of the lectures, exercises and other teaching materials).
- ✓ Organisation of internal workshops, dissemination and promotion events, in order to promote Erasmus + project results, will be opportunity to share the knowledge within teaching staff, gained within projects, in order to improve the teaching and learning methods as well as to work on optimizing teacher/student experience and success.
- ✓ The increased number of the dissemination and promotion events of the project results will have an impact on the promotion of the modernized or newly developed study programs in the future in order to attract larger numbers of the students for enrolment.

4.1.3 UES, BE009

The measures, which will be conducted by University of East Sarajevo, are:

- ✓Consistently utilize platforms for distance learning and lifelong learning (LLL).
- ✓Frequently organize internal workshops for teaching staff to foster innovation and improve teaching ability annually.
- ✓Focus on technical advancements in e-learning and teaching, using European best practices and each higher education institution's (HEI's) experience.
- ✓Increase the number of courses with recorded content.
- ✓Promote study programs, especially during study fairs.
- ✓Maintain and upgrade laboratories with new equipment and innovative usage ideas.
- ✓Continue the development of study programs.
- ✓Adapt curricula to reflect the latest trends in distance education.

4.1.4 SUM, BE10

- ✓ use system for distance learning engagement, for providing base for developing some e-courses for LLL;
- ✓ organize internal workshops for teaching staff more often and create an innovation spirit, so the classes can be improved each year;
- ✓ work on optimizing teacher/student experience and success, emphasizing technical development in e-learning/teaching, using the European best practices and each HEI's experience;
- ✓ standardize processes for improving inclusivity, diversity, and participation and retention of individuals with challenges in learning;
- ✓ develop/increase the number of courses for which content will be recorded;
- ✓ promotion of study programs during the incoming years;
- ✓ taking care about labs (maintenance, upgrading with new equipment and new usage ideas);
- ✓ further development of study programs;
- ✓ adapt the curricula to mirror the latest trends in distance education.

4.1.5 USB, BE11

USB key measures will include leveraging distance learning systems to develop e-courses for lifelong learning and fostering an innovative environment, within which USB will fulfil present main sustainability goals - institutional capacity development, curriculum update, e-learning sustainability and extending the cooperation with other institutions, through implementation of the following measures:

- ✓ use system for distance learning engagement, for providing base for developing e-courses for LLL
- ✓ organize internal workshops for teaching staff more often and create an innovation spirit, so the classes can be improved each year
- ✓ work on optimizing teacher/student experience and success, emphasizing technical development in e-learning/teaching, using the European best practices and each HEI's experience, and

- ✓ standardize processes for improving inclusivity, diversity, and participation and retention of individuals with challenges in learning
- ✓ develop/increase the number of courses for which content will be recorded.
- ✓ promotion of study programs during the incoming years, on study fears
- ✓ taking care about labs (maintenance, upgrading with new equipment and new usage ideas),
- ✓ further development of study programs
- ✓ modify the master study program
- ✓ adapt the curricula to mirror the latest trends in distance education.

4.1.6 LRS, BE12

- ✓ **Internal Workshops and Innovation,** focused on improving teaching methodologies and incorporating innovative teaching practices. Also, encouraging a culture of continuous improvement among faculty members.
- ✓ **Optimize Teacher and Student Experience,** by implementing best practices from European counterparts to enhance e-learning and teaching experiences. Also, using feedback mechanisms to continuously improve the educational process and address any challenges faced by teachers and students.
- ✓ **Inclusivity and Diversity,** by developing standardized processes to improve the inclusivity and participation of students with learning challenges. Also, ensuring that all course materials and teaching methods are accessible to a diverse student body.
- ✓ **Courses Promotion,** during recruitment periods and through various marketing channels.
- ✓ **Laboratory Maintenance and Upgrades,** regularly, to support modern educational needs. Also, encouraging innovative uses of laboratory equipment to enhance practical learning experiences.
- ✓ **Curriculum Development,** continuously, to reflect the latest trends and advancements in the field of energy and ICT.

4.1.7 UMT, BE13

The Universiteti Metropolitan Tirana (UMT) intends to provide institutional capacity development using project results for a university regarding starting a new MSc in Renewable Energy in the Western Balkans by taking these following steps:

1. **Assess Existing Capacity and Gaps**:
    - As part of one of the work packages, we have started to evaluate the university's current academic offerings, faculty expertise, research capabilities and infrastructure related to renewable energy.
    - We will identify gaps in the present curricula, teaching methodologies, laboratory facilities and industry linkages.
    - Gather feedback from key stakeholders like students, industry partners and regional/national authorities.
2. **Leverage Project Results and Partnerships**:

- Review any previous or ongoing renewable energy projects in the region that the university has been involved in.
- Analyse the key outputs, outcomes and lessons learned from these projects.
- Utilise the networks, knowledge and resources developed through these projects to inform the new MSc program.
- Strengthen partnerships with regional/international universities, research centres and industry leaders in renewable energy.

3. **Develop the Curriculum and Teaching Approach**:
   - Design a comprehensive curriculum that covers the technical, economic, policy and social aspects of renewable energy.
   - Incorporate hands-on learning opportunities, such as laboratory sessions, field visits and industry internships.
   - Adopt innovative teaching methodologies, including problem-based learning, case studies and collaborative projects.
   - Ensure the curriculum aligns with regional and international standards and accreditation requirements.
4. **Build Faculty Capacity**:
   - Assess the existing faculty's expertise and identify areas for professional development.
   - Organise training programs, workshops and faculty exchange opportunities to enhance their knowledge and teaching skills in renewable energy.
   - Encourage faculty to engage in relevant research, industry collaborations and international networking.
   - Recruit new faculty members with specialized expertise in renewable energy technologies and their applications.
5. **Strengthen Research and Innovation Capabilities**:
   - Establish dedicated research laboratories and testing facilities for renewable energy systems.
   - Facilitate collaborative research projects with regional and international partners.
   - Encourage faculty and students to engage in applied research, technology development and commercialization through UMT's Doctoral School and Innovation Hub.
   - Promote knowledge-sharing and dissemination through peer reviewed international conferences, conference and journal publications with Impact Factors and Scopus Index and finally through public outreach.
6. **Engage with Industry and Stakeholders**:
   - Foster strong industry partnerships to align the program with market needs and facilitate internships, guest lectures and joint projects.
   - Involve regional and national authorities in program development to ensure it addresses local and national priorities.
   - Establish an advisory board comprising industry leaders, policymakers and alumni to provide strategic guidance.
   - Organise regular stakeholder engagement events to gather feedback and strengthen the program's relevance.
7. **Ensure Sustainable Implementation and Scalability**:
   - Develop a robust governance structure and administrative processes to manage the new MSc program.

- Secure long-term funding from various sources, including government, industry and international donors.
- Plan for program expansion, including the introduction of specialized tracks, dual degrees and online/distance learning options.
- Implement a comprehensive quality assurance system and continuously monitor and improve the programme.

By following these steps and leveraging project results, UMT can effectively develop its institutional capacity to launch a successful and sustainable MSc program in Renewable Energy in the Western Balkans.

4.1.8 FPRN, BE14

- ✓ Organize faculty development workshops to ensure continuous improvement in teaching practices and curriculum design;
- ✓ Focus on feedback mechanisms from students and staff about courses and teaching methods, and conduct regular surveys;
- ✓ Enhance digital resources by expanding the digital library and online resources to support both students and faculty in their research and learning objectives;
- ✓ work on optimizing teacher/student experience and success, emphasizing technical development in e-learning/teaching, using the European best practices and each HEI's experience, and
- ✓ Leverage the University alumni network to engage alumni in providing mentorship, guest lectures, internships, creating a bridge between current students and the professional world;
- ✓ Promotion of adapted study programs in-person during Open Days, visits to high schools, as well as on the digital media.

4.2 Curriculum update

The new/upgraded teaching approach will lead to subsequent modernization of curricula by the introduction of the tech-oriented methodology applicable in added content development. By introducing new content into curricula, the practical skills of the next generations of students will be exposed to novel and relevant knowledge.

Measures:

Over the years, the methodology can be improved and timely refreshed following technology development trends, integrating universal design principles in teaching, so WBHEIs should update syllabises with new modern contents.

- improving curriculum through time and eliminating constraints depicted in lack of incentives, resources, personal and personal touch,

- taking care about labs (maintenance, upgrading with new equipment and new usage ideas).

4.2.1 AASKM, BE001

Maintaining an updated curriculum involves strategic planning, continuous assessment, and responsiveness to emerging trends. Here are strategic steps that are planned to be taken in AASKM:

1. **Establish a Curriculum Review Cycle**: Create a structured process for regularly reviewing and updating curricula. Define timelines and responsibilities for conducting reviews, incorporating feedback from stakeholders, and implementing changes.
2. **Monitor Industry and Societal Trends**: Stay informed about changes in industry demands, technological advancements, and societal needs. Establish partnerships with industry leaders, alumni, and professional associations to gather insights and feedback.
3. **Integrate Skills and Competencies**: Identify essential skills, competencies, and learning outcomes that students should acquire. Align curricula with these outcomes to ensure relevance and prepare graduates for current and future challenges.
4. **Use Student Feedback**: Collect and analyze feedback from current students and alumni regarding their learning experiences and career outcomes. Incorporate their perspectives into curriculum updates to enhance student satisfaction and employability.
5. **Embrace Innovative Teaching Methods**: Explore and adopt innovative teaching methodologies, such as flipped classrooms, project-based learning, and experiential learning opportunities. These methods can help bridge the gap between theory and practice.
6. **Support Professional Development**: Provide Academy members with opportunities for professional development in curriculum design, pedagogy, and assessment. Encourage ongoing reflection and refinement of teaching practices.
7. **Adapt to Technological Advances**: Integrate new technologies and digital resources into the curriculum to enhance learning experiences and prepare students for digital workplaces. Invest in infrastructure and training to support technology-enabled learning.
8. **Maintain Flexibility and Agility**: Create a framework that allows for flexibility and adaptation to changing circumstances, including unexpected challenges or opportunities. Regularly revisit strategic plans and adjust priorities as needed.

By implementing these strategic steps, the Academy can maintain a dynamic and responsive curriculum that meets the evolving needs of students, industries, and society at large. Regular evaluation and stakeholder engagement are key to ensuring ongoing relevance and quality.

4.2.2 UPKM, BE008

- ✓ For the laboratory established at UPKM and equipped with the equipment purchased with the project funds UPKM will provide premises, furniture, and other necessary infrastructure (electricity, water, internet, etc). The laboratory will be established with decisions of relevant University/Faculty bodies as organizational units. This unit is part

of relevant faculties and as such have no status of a legal entity, but their functioning is regulated by the statute and general legal acts of the University/Faculty.

- ✓ The laboratory should enable the teachers and researchers of the UPKM to realize joint research and scientific collaboration in the future in this regard which is one of the important parts of the sustainability of the project results.
- ✓ Curricula modernized within the project will be continuously implemented in the third project year as well as beyond project lifetime, through permanent modernisation and update of the courses within modernized study program.

4.2.3 UES, BE009

The UES will provide a few measures to support the modernization of curricula and the introduction of tech-oriented methodologies:

- ✓ Conduct annual or biannual reviews of the curriculum to ensure it stays current with technological advancements and industry needs.
- ✓ Collaborate with technology companies and industry leaders to keep abreast of the latest trends and ensure students gain relevant skills.
- ✓ Implement continuous professional development programs for faculty to enhance their skills in tech-oriented methodologies and modern teaching practices.
- ✓ Create structured feedback mechanisms where students can provide input on the curriculum and suggest areas for improvement.
- ✓ Implement the use of advanced educational technology tools such as virtual labs, simulations, and AI-based learning platforms to enhance teaching and learning experiences.
- ✓ Establish research and innovation centers within the institution to foster a culture of continuous improvement and innovation in teaching methodologies.
- ✓ Involve alumni in curriculum development by seeking their input on the skills and knowledge that are most valuable in the workforce.

4.2.4 SUM, BE10

- ✓ improving curriculum through time and eliminating constraints depicted in lack of incentives, resources, personal and personal touch;
- ✓ taking care about labs (maintenance, upgrading with new equipment and new usage ideas).

4.2.5 USB, BE11

USB operates in the fields of Computing and Information Technologies, which are constantly evolving and changing. In this regard, we have developed a strategy of constant update, improvement and adjustment of syllabises, teaching material and labs according to the latest technological achievements, which will be applied within this project as well.

- ✓ improving curriculum through time and eliminating constraints depicted in lack of incentives, resources, personal and personal touch;

- ✓ taking care about labs (maintenance, upgrading with new equipment and new usage ideas).

4.2.6 LRS, BE12

- ✓ **Integrating New Teaching Approaches,** by incorporating tech-oriented methodologies and modern content into the curriculum to expose students to relevant and cutting-edge knowledge. Also, regularly updating syllabuses to align with technological developments and industry standards.
- ✓ **Resource Allocation,** for the maintenance and upgrading of laboratory equipment to support the updated curriculum. Also, encouraging the use of innovative teaching tools and resources.

4.2.7 UMT, BE13

UMT intends to keep its curriculum updated by following these seven strategic steps:

- ✓ **Establish a Curriculum Review Process**:
  - Set up a dedicated curriculum review committee or task force comprising faculty, industry representatives and student representatives.
  - Develop a systematic process to regularly review and update the curriculum, such as annual or biennial reviews.
  - Define clear criteria and metrics for evaluating the relevance, quality and effectiveness of the curriculum.
- ✓ **Continuously Monitor Industry Trends and Stakeholder Needs**:
  - Establish strong industry partnerships and regularly engage with renewable energy companies, policymakers, and regional authorities.
  - Gather feedback on emerging technologies, skills gaps and evolving market demands through surveys, focus groups and advisory board meetings.
  - Stay informed about regional and global trends in renewable energy, such as policy changes, technological advancements and sustainability goals.
- ✓ **Incorporate Project Results and Lessons Learned**:
  - Regularly review the outputs, outcomes and lessons learned from any renewable energy projects the university has been involved in.
  - Identify opportunities to integrate relevant project results, such as new research findings, innovative teaching methodologies, or industry collaborations into the curriculum.
  - Leverage the networks and partnerships developed through these projects to enhance the program's relevance and access to the latest industry knowledge.
- ✓ **Encourage Faculty Professional Development**:
  - Provide opportunities for faculty to attend training programs, workshops and conferences to stay up-to-date with the latest trends and best practices in renewable energy education.
  - Support faculty research, industry secondments and international collaboration to keep them engaged with the evolving renewable energy landscape through UMT's Project Office and International Relations Office.

- Incentivise and reward faculty for incorporating innovative teaching methods, industry-relevant case studies and emerging technologies into their courses.

✓ **Implement a Dynamic Curriculum Updating Process**:
- Establish a flexible curriculum structure that allows for the timely incorporation of new courses, electives and specialized tracks whilst maintaining acceptance with the Albanian Ministry of Education.
- Develop a streamlined approval process for curriculum changes to enable a responsive and adaptive program.
- Encourage interdisciplinary collaboration and integration of renewable energy topics across related disciplines, such as engineering, policy and business.

✓ **Enhance Student Engagement and Feedback Mechanisms**:
- Collect regular feedback from students through surveys, focus groups and student-faculty forums.
- Encourage student participation in programme related events, industry projects and research activities to gather their insights and suggestions.
- Establish a student advisory board to provide a direct channel for student voice and involvement in curriculum development.

✓ **Ensure Continuous Quality Improvement**:
- Implement a comprehensive quality assurance system to monitor the program's performance, including student learning outcomes, graduate employability and stakeholder satisfaction.
- Regularly benchmark the program against regional and international standards and best practices in renewable energy education.
- Utilise data analytics and performance indicators to identify areas for improvement and inform curriculum updates.

By following these steps, the university can effectively keep the MSc in Renewable Energy curriculum updated and aligned with the evolving needs of the industry, regional priorities and global trends, thereby strengthening its institutional capacity for sustainable implementation and growth.

4.2.8 FPRN, BE14

- ✓ Improve curriculum through time, use project results for the next accreditation process;
- ✓ Incorporate interdisciplinary studies by designing courses that integrate knowledge and methods from different disciplines;
- ✓ use agile methodologies to allow for flexible and rapid updates to the curriculum in response to emerging trends and technologies;
- ✓ introduce more project-based learning opportunities.

4.3 E-learning sustainability

Each WBHEI should find the most effective, educationally rewarding approach to delivering knowledge to its students, using a range of finessing solutions that will help to overcome the

restrictions of conventional teaching/learning, regardless of their educational effectiveness and creativity.

Measures, that next HEIs should use;

- to develop a strategy for distance learning and the use of information and communication technologies in the teaching process.
- to establish procedures and recommendations for the permanent improvement of the teaching process by applying ICT and

4.3.1 AASKM, BE001

Here are measures that AASKM aims to take in order to ensure e-learning sustainability:

- ✓ **Investment in Infrastructure**: Allocate resources for upgrade of the existing IT infrastructure, including high-speed internet access, reliable servers, and digital learning platforms. Ensure scalability to accommodate increasing numbers of users and data storage needs.
- ✓ **Capacity Building**: Provide training and support for faculty members and staff in e-learning pedagogies, instructional design, and technology integration. Foster a culture of continuous professional development to enhance digital literacy and teaching effectiveness.
- ✓ **Access and Accessibility**: Ensure equitable access to e-learning resources and platforms for all students, including those in remote or underserved areas. Address accessibility issues for students with disabilities by providing accommodations and assistive technologies.
- ✓ **Collaboration and Partnerships**: Foster collaborations with international institutions, organizations, and industry partners to share best practices, resources, and expertise in e-learning. Participate in collaborative research projects and joint educational programs.
- ✓ **Adaptability and Flexibility**: Remain adaptable to technological advancements and evolving educational trends. Anticipate future needs and trends in e-learning by engaging in strategic planning and foresight activities.
- ✓ **Policy Development**: Advocate for supportive policies at institutional, regional, and national levels that promote e-learning sustainability. Collaborate with policymakers to address regulatory barriers and promote digital education initiatives.

By implementing these measures, AASKM can enhance the sustainability and effectiveness of e-learning initiatives, thereby improving access to quality education and supporting regional development goals.

4.3.2 UPKM, BE008

- ✓ UPKM has e-learning platform within multimedia classroom established as well as user manual for using this platform and uploading multimedia content, what could be used as the ground of the permanent improvement of the teaching process by applying ICT as well as precondition for eventual accreditation of study programs based on distance learning in the future.

4.3.3 UES, BE009

UEB operates in the fields of Computing and Information Technologies, which are constantly evolving and changing. In this regard, we have developed a strategy of constant update, improvement and adjustment of syllabises, teaching material and labs according to the latest technological achievements, which will be applied within this project as well.

- ✓ improving curriculum through time and eliminating constraints depicted in lack of incentives, resources, personal and personal touch;
- ✓ taking care about labs (maintenance, upgrading with new equipment and new usage ideas).

4.3.4 SUM, BE10

- ✓ to develop a strategy for distance learning and the use of information and communication technologies in the teaching process;
- ✓ to establish procedures and recommendations for the permanent improvement of the teaching process by applying ICT.

4.3.5 USB, BE11

USB will try to find the most effective approach to deliver knowledge to our students, utilizing a variety of innovative solutions to overcome the limitations of traditional teaching and learning methods, prioritizing both educational effectiveness and creativity, including the following measures:

- ✓ Development of a strategy for distance learning and the integration of information and communication technologies into our teaching processes.
- ✓ Establishing the procedures and guidelines for continuously improving our teaching methods through the application of ICT.
- ✓ Laying the groundwork for potential accreditation of study programs designed for distance learning.

4.3.6 LRS, BE12

- ✓ **Develop a Distance Learning Strategy,** which leverages information and communication technologies (ICT) in the teaching process. Also, establishing procedures for the continuous improvement of e-learning methodologies.
- ✓ **Prepare for Accreditation and Quality Assurance,** based on distance learning to ensure high standards of education. Also, implementing quality assurance measures to maintain the effectiveness and efficiency of e-learning programs.

4.4.7. UMT, BE13

UMT plans to ensure its eLearning and use of ICT sustainable by following these seven key steps:

- ✓ **Establish an eLearning and ICT Governance Structure**:

- Create a dedicated eLearning and ICT steering committee or taskforce with representatives from various stakeholders, including faculty, IT staff, instructional designers and students.
- Develop a comprehensive eLearning and ICT strategy that aligns with the university's overall academic and institutional goals.
- Define clear policies, guidelines and standards for the development, implementation and maintenance of eLearning and ICT systems.

✓ **Assess and Enhance the Technological Infrastructure**:
- Evaluate the existing IT infrastructure, including hardware, software, connectivity and cloud-based services, to identify gaps and areas for improvement.
- Invest in scalable and robust technology platforms, such as learning management systems (LMS), video conferencing tools and virtual laboratories, to support eLearning and blended learning.
- Ensure the infrastructure is secure, reliable and accessible to all students and faculty, including those in remote locations.

✓ **Develop Faculty and Staff Capabilities**:
- Provide comprehensive training programs for faculty and staff on the effective use of eLearning technologies, instructional design and online pedagogy.
- Offer ongoing support and technical assistance to faculty to help them integrate eLearning tools and resources into their teaching practices.
- Incentivise and recognise faculty for their efforts in developing high-quality online/blended courses and adopting innovative eLearning strategies.

✓ **Leverage Project Results and Partnerships**:
- Review any previous or ongoing projects related to eLearning, ICT or renewable energy education that the university has been involved in.
- Analyse the key outputs, outcomes and lessons learned from these projects and identify opportunities to apply them to the new MSc program.
- Collaborate with regional and international partners, such as other universities, research centres and industry leaders, to share best practices and access resources for eLearning and ICT development.

✓ **Ensure Learner-Centric eLearning Experiences**:
- Design engaging and interactive eLearning content, including multimedia elements, simulations and virtual laboratories, to enhance the student learning experience.
- Implement adaptive and personalised learning approaches to cater to the diverse needs and learning styles of students.
- Provide comprehensive student support services, such as online tutoring, technical assistance and virtual student communities, to promote student engagement and success.

✓ **Incorporate Innovative eLearning Methodologies**:
- Explore the use of emerging technologies, such as augmented reality (AR), virtual reality (VR) and artificial intelligence (AI), to create immersive and transformative eLearning experiences.
- Adopt active learning strategies, such as problem-based learning (PBL), flipped classrooms and collaborative projects, to foster critical thinking and problem-solving skills.

- Integrate real-world case studies, industry collaborations and hands-on applications into the eLearning environment to enhance the program's relevance and practical orientation.

✓ **Ensure Continuous Monitoring and Improvement**:

- Implement a comprehensive quality assurance system to regularly evaluate the effectiveness, usability and impact of the eLearning and ICT systems.
- Gather feedback from students, faculty and industry stakeholders to identify areas for improvement and inform the ongoing development of the eLearning environment.
- Allocate dedicated resources, including funding and personnel, to maintain, update and continuously enhance the eLearning and ICT infrastructure and capabilities.

By following these steps and leveraging project results, UMT can effectively develop a sustainable and updated eLearning and ICT ecosystem to support the new MSc in Renewable Energy programme, thereby enhancing its overall institutional capacity and responsiveness to the evolving needs of the renewable energy sector.

4.3.8 FPRN, BE14

- ✓ Develop a strategy for distance learning and the use of information and communication technologies in the teaching process
- ✓ Utilize e-learning platforms of the University to enhance standard learning methods
- ✓ Ensure that the technical infrastructure supports high-quality e-learning, including reliable internet access, modern learning management systems (LMS), and up-to-date software and hardware.
- ✓ provide ongoing technical support
- ✓ Offer training sessions to improve digital literacy among both students and faculty, ensuring everyone can effectively use e-learning tools.
- ✓ prepare the ground for the eventual accreditation of study programs based on distance learning

4.4 Extend the cooperation with other institutions

The signing of the cooperation agreement with other HEIs will enable the exchange of prepared digital lectures and laboratory exercises and the organization of guest lectures for teachers from other HEIs.

Measures, that next HEIs should use;

- The exchange of prepared digital lectures and laboratory exercises and the organization of guest lectures for teachers from other HEIs;
- Promote distance learning as a stimulant for accelerated development of partnerships between WBHEIs and businesses.

4.4.1 AASKM, BE001

Extending cooperation with other higher education institutions (HEIs), both domestically and internationally, can enhance academic programs, research capabilities, and institutional reputation. Here are measures that AASKM plan to take in order to foster and extend cooperation:

1. **Establish Partnerships and Networks**: Actively seek and extend the partnerships with other HEIs regionally, nationally, and internationally. This can be achieved through formal agreements, memoranda of understanding (MoUs), and consortium memberships.
2. **Joint Degree Programs**: Develop joint degree programs with partner institutions, allowing students to earn degrees from both institutions. Collaborate on curriculum design, student exchange opportunities, and mutual recognition of credits.
3. **Student and Staff Mobility**: Facilitate student and staff exchange programs to promote cultural exchange, language learning, and exposure to different academic environments. Provide support services such as housing, visas, and orientation programs.
4. **Virtual Collaboration Platforms**: Utilize digital technologies to facilitate virtual collaboration among researchers, faculty members, and students. Establish online forums, webinars, and collaborative platforms for sharing knowledge and resources.
5. **Professional Development**: Offer opportunities for faculty and staff professional development through workshops, seminars, and training sessions conducted jointly with partner institutions. Share expertise in teaching methodologies, research techniques, and administrative practices.
6. **Community Engagement and Outreach**: Engage with local communities and stakeholders through collaborative projects, service-learning initiatives, and outreach programs. Foster partnerships that contribute to regional development and address community needs.

By implementing these measures, the Academy can strengthen its international profile, enrich educational experiences, foster innovation through research collaboration, and contribute to global knowledge exchange and development.

4.4.2 UPKM, BE008

- ✓ Established networks within UPKM and other HEIs as well as with stakeholders could be extended with different types of cooperation through signing MoUs. This cooperation could be used for promotion of possibility of distance learning, exchanging prepared multimedia contents within the project, creation access to those materials to interested stakeholders.

4.4.3 UES, BE009

- ✓ The UES (and Faculty of Electrical Engineering) will continually work on signing the MoU, as it was the practice during the project lifetime, and plan to continue with that practice after the project ends. The experts from other institution and industry will be involved in the laboratory process. Internship, as a example of good practise, will be the mandatory course on both BSc and MSc level.

4.4.4 SUM, BE10

Measures:

- ✓ The signing of the cooperation agreement with other HEIs
- ✓ The exchange of prepared digital lectures and laboratory exercises and the organization of guest lectures for teachers from other HEIs.
- ✓ Promote distance learning as a stimulant for accelerated development of partnerships between WBHEIs and businesses

4.4.5 USB, BE11

Through the cooperation agreement with other HEIs, USB will be enabled to share digital lectures, labs, and organizing of guest lectures, enhancing cooperation and exchanging educational resources. Partnerships between WBHEIs and businesses will be catalysed through distance learning, accelerating educational and industrial collaboration.

- ✓ The exchange of prepared digital lectures and laboratory exercises and the organization of guest lectures for teachers from other HEIs;
- ✓ Promote distance learning as a stimulant for accelerated development of partnerships between WBHEIs and businesses.

4.4.6 LRS, BE12

- ✓ **Foster Inter-Institutional Collaborations,** with other HEIs to facilitate the exchange of digital lectures, laboratory exercises, and guest lectures. Also, by promoting distance learning as a catalyst for developing partnerships between Luarasi University and businesses.
- ✓ **Networking and Collaboration,** with economy stakeholders, citizens, and other educational institutions to promote energy saving and rationalization of energy consumption. Also, organizing local workshops and seminars to facilitate knowledge exchange and collaborative projects.

4.4.7. UMT, BE13

UMT's plan for extending its academic cooperation, training and research with other higher education institutions in the Western Balkans region, for accelerated development of partnerships and businesses comprises five points:

- ✓ **Establish a Regional Academic Consortium**:
  - Measures:
    - Initiate discussions and negotiations with universities and higher education institutions across the Western Balkans region to form a consortium for collaborative activities.
    - Develop a memorandum of understanding (MoU) that outlines the shared goals, guiding principles and areas of cooperation.
    - Identify and appoint representatives from each institution to serve on a steering committee to oversee the consortium's operations.
  - Beneficial Outcomes:

- Fosters a structured and sustainable platform for regional academic collaboration.
- Enables the pooling of resources, expertise and best practices amongst the participating institutions.
- Strengthens the collective bargaining power and visibility of the consortium in securing funding, partnerships and international recognition.

✓ **Develop Joint Degree and Dual-Degree Programs**:
- Measures:
  - Conduct a comprehensive needs assessment to identify complementary academic strengths and interests among the consortium members.
  - Establish joint curriculum development and quality assurance mechanisms to ensure the seamless integration of academic programs.
  - Streamline administrative and legal procedures for the mutual recognition of credits and degrees.
- Beneficial Outcomes:
  - Enhances student mobility and access to diverse educational opportunities within the region.
  - Fosters cross-cultural understanding and collaboration among students and faculty.
  - Strengthens the regional reputation and competitiveness of the participating institutions.

✓ **Facilitate Student and Faculty Exchange Programs**:
- Measures:
  - Create a centralized platform or database to facilitate the sharing of information about exchange opportunities and application procedures.
  - Establish scholarship and funding mechanisms to support student and faculty mobility within the consortium.
  - Develop joint research projects and collaborative research groups to incentivise faculty exchange and collaboration.
- Beneficial Outcomes:
  - Promotes the exchange of ideas, knowledge and best practices among students and faculty.
  - Enhances the international exposure and professional development of participants.
  - Facilitates the establishment of long-term networks and research collaborations.

✓ **Organise Joint Training and Capacity-Building Programs**:
- Measures:
  - Identify the common training needs and skill gaps within the renewable energy sector across the region.
  - Develop customised training programs, workshops and short courses to address these needs.
  - Leverage the expertise and resources of the consortium members to deliver the training programs.
- Beneficial Outcomes:

- Strengthens the practical and technical capabilities of students, faculty and industry professionals.
- Enhances the overall employability and competitiveness of graduates in the renewable energy job market.
- Fosters industry-academia collaboration and knowledge transfer within the region.

✓ **Establish a Regional Research and Innovation Hub**:

- Measures:
  - Identify and designate a leading institution within the consortium to serve as the regional research and innovation hub.
  - Develop a shared research agenda, funding mechanisms and intellectual property rights framework.
  - Encourage the participation of industry partners, policymakers and other stakeholders in the hub's activities.
- Beneficial Outcomes:
  - Promotes interdisciplinary and cross-institutional research in renewable energy and related fields.
  - Facilitates the commercialisation of research findings and the development of innovative technologies.
  - Attracts external funding, investments and partnerships to support the growth of the renewable energy sector in the region.

By implementing these measures, the academic consortium in the Western Balkans region can accelerate the development of partnerships and businesses, fostering a vibrant and collaborative ecosystem for renewable energy education, research and innovation. This strategic approach will strengthen the region's capacity to address the challenges and capitalise on the opportunities in the rapidly evolving renewable energy landscape.

4.4.8 FPRN, BE14

- ✓ Sign cooperation agreements with other HEIs in the Consortium;
- ✓ Facilitate cross-institutional faculty development including workshops, seminars and training sessions;
- ✓ Promote and support collaborative research projects between faculty through the exchange of prepared digital lectures and laboratory exercises and the organization of guest lectures for teachers from other HEIs;
- ✓ Promote distance learning as a stimulant for accelerated development of partnerships between WBHEIs and businesses.

5. FINANCIAL SUSTAINABILITY GOALS

The financial sustainability plan deals with the mechanisms each institution will implement in order to provide resources that are needed for seamless operation and necessary upgrades to the e-platforms used. It is essential that these mechanisms are implemented in a way that will make sure that they are in place even after the official end of the project. Listed below are mechanisms each institution will implement. Accurate and effective financial management is carried out under the lead of the coordinating institution (AASKM) and project coordinator. The total project budget is distributed among all participants according to signed GA. All spending are predicted in a most cost efficient way.

The financial sustainability plan includes the provision of financial resources for the further operation of the platforms and its constant improvement. The plan will be implemented through three segments:

- ✓ **Expansion and modernization of education process with the integration of ICT tools and methodologies on HEI;**
- ✓ **Promotion of distance learning and accreditation of that learning model;**
- ✓ **Cooperation with competent government bodies at the national and local level;**
  - In order to foster and provide support for greater digitalization and reach potential students/partners from remote and rural areas,
  - In order to develop mechanisms for funding of potential students in remote and rural areas
- ✓ **Providing funds from own revenues for e-platform/infrastructure maintenance;**
  - Providing funds from online/face to face trainings/events organized by HEI for the needs of economy,
  - Consultations with all interested parties in the area of energetic sector,
- ✓ **In kind support/contribution of HEI (use existing personnel resources, funds);**
- ✓ **Secure a sound administrative, financial and logistical support on HEI in the future;**
- ✓ **Organize seminars, conferences and symposiums;**
- ✓ **Participation in other projects (national, Erasmus+, Eureka, Horizon, etc).**

5.1 AASKM, BE001

- ✓ As accredited state institution, AASKM cooperates with government bodies such as the competent Ministry of Education, Science and Technological Development, the Science Fund, the Innovation Fund and local self-government. Through cooperation, AASKM will provide financial and material resources for maintenance in improving the work of the platform;

- ✓ AASKM and its departments will provide financial support for the operation of the platform after the end of the project;
- ✓ Innovate and expand revenue-generating activities, such as continuing education programs, executive training courses, and consulting services. Explore opportunities for commercializing research outcomes and intellectual property;
- ✓ Balance tuition fee structures to remain competitive while ensuring affordability for students from diverse socioeconomic backgrounds. Implement financial aid programs, scholarships, and student loan options to support access and retention;
- ✓ Through participation in other local, national and regional projects, the AASKM will provide funds to improve the teaching process by including ICT sector in order to digitize the energy sector at the bachelor and master levels of education.

5.2 University of Mitrovica. UPKM, BE008

- ✓ UPKM – Financial sources will be provided through state and own budged sources (budget financed students, salaries for employed teaching and administrative staff, maintaining laboratories). The financial sustainability will be achieved through financial support for accredited study programmes from the Ministry of Education and through student scholarships. Also, financial sustainability could be provided through implementation scientific research projects financed by the state bodies or collaborative research projects with industry sector;
- ✓ The laboratory established at UPKM, as organizational units within faculty/university, will be financed from the regular institutional budget intended for the functioning of laboratories, as well as laboratory staff. It will become a part of the institutional financial annual plans.

5.3 Univerzitet u Istočnom Sarajevu, UES, BE009

- ✓ University of East Sarajevo, and its faculties, as a public High Educational Institution, are fund by state and the financial sustainability of UES is mainly ensured by the budget funds of the Government of Republika Srpska (Entity of Bosnia and Herzegovina) through Ministry of Scientific and Technological Development, Higher Education, and Information Society;
- ✓ A certain part of the financial structure of sustainability is insured over participation and implementation of scientific and research development projects.

5.4 University of Mostar, SUM, BE010

- ✓ Cooperation with donors from economy and other donors;
- ✓ Providing funds from own revenues for e-platform/infrastructure maintenance;
    - Providing funds from online/face to face trainings/events organized by HEI for the needs of economy,
    - Consultations with all interested parties in the area of energetic sector,

- ✓ In kind support/contribution of HEI (use existing personnel resources, funds);
- ✓ Secure a sound administrative, financial and logistical support on HEI in the future;
- ✓ Organize seminars, conferences and symposiums.

5.5 Univerzitet Sinergija Bijeljina, USB, BE011

- ✓ USB's financial sustainability plan involves implementation of mechanisms to secure resources for seamless operation and necessary platform upgrades beyond the project's official end. The plan includes modernizing education processes with ICT integration, promoting and accrediting distance learning, and collaboration with government bodies to enhance digitalization and support remote education access. We aim to secure funds from economic donors, use internal revenues for platform maintenance, and organize events that meet economic needs;
- ✓ Consulting with energy sector stakeholders and leveraging existing resources will contribute to our efforts, ensuring future administrative, financial, and logistical support while organizing seminars and conferences for knowledge sharing and collaboration.

5.6 Luarasi University, LRS, BE012

- ✓ **Expand and Modernize Education Processes,** by integrating ICT tools and methodologies into the education process to enhance learning outcomes and operational efficiency;
- ✓ **Promote Distance Learning,** by advocating for the accreditation and acceptance of distance learning models to reach a broader student base, including those in remote and rural areas;
- ✓ **Collaborate with Government and Donors,** to secure support for digitalization initiatives and funding mechanisms for students from underserved areas. Also, by partnering with donors and the private sector to obtain financial resources and in-kind contributions for sustaining e-learning platforms;
- ✓ **Generate Own Revenues,** by organizing online and face-to-face training sessions, seminars, and conferences to generate income that can be reinvested into maintaining and upgrading e-learning infrastructure. Also, by leveraging existing personnel and resources to provide administrative, financial, and logistical support for sustainability efforts;
- ✓ **Participate in Additional Projects,** national and international (e.g., ERASMUS+, HORIZON) to secure additional funding and collaboration opportunities.

5.7 Universiteti Metropolitan Tirana, MTU, BE013

UMT's proposed financial sustainability plan, covering the mechanisms to provide the necessary resources, upgrading of ICT platforms, promotion of distance learning and leveraging cooperation with government bodies, donors and EU projects is given below in these four phases:

- ✓ **Securing Financial Resources**:
  - Mechanisms:
    - Diversify revenue streams by exploring alternative funding sources beyond tuition fees, such as:
      - Increasing research grants and contract work with industry partners
      - Expanding executive/professional education programs
      - Cultivating alumni and private donor contributions
      - Participating in government-funded initiatives and schemes
    - Optimize resource allocation and cost-saving measures:
      - Implement energy-efficient upgrades and sustainable campus operations
      - Streamline administrative processes and reduce overhead costs
      - Explore shared services and resource-sharing arrangements with other institutions
  - Beneficial Outcomes:
    - Ensures the financial stability and long-term viability of the university
    - Enables investments in campus infrastructure, technology and educational programs
    - Reduces the dependence on tuition fees and government funding.
- ✓ **Upgrading ICT Platforms and Digital Infrastructure**:
  - Mechanisms:
    - Conduct a comprehensive assessment of the university's current ICT infrastructure and digital capabilities
    - Develop a multiyear ICT strategic plan to guide investments and upgrades, including:
      - Modernising the university's learning management system (LMS)
      - Enhancing campus-wide connectivity and bandwidth
      - Implementing robust cybersecurity measures and data management systems
      - Transitioning to cloud-based services and software-as-a-service (SaaS) solutions
    - Collaborate with technology partners, IT service providers and industry experts to leverage their expertise and resources
  - Beneficial Outcomes:
    - Enhances the delivery of online and distance learning programs
    - Improves the overall efficiency, productivity and security of the university's digital infrastructure
    - Enables the university to remain competitive and responsive to evolving technology trends.
- ✓ **Promoting Distance Learning and Online Education**:
  - Mechanisms:
    - Establish a dedicated distance learning and online education unit within the university
    - Develop a comprehensive strategy and implementation plan for expanding distance learning offerings

- Forge partnerships with government bodies, regulatory agencies and donor organisations to:
  - Secure funding and resources for distance learning initiatives
  - Ensure the recognition and accreditation of online programs
  - Collaborate on the development of national digital education policies and frameworks
- Participate in EU-funded projects and programs focused on digital education and cross-border collaboration

o Beneficial Outcomes:
- Increases access to higher education for underserved and geographically dispersed populations
- Enhances the university's reputation and competitiveness in the regional and global education market
- Diversifies the university's program offerings and revenue streams.

✓ **Fostering Stakeholder Engagement and Partnerships**:

o Mechanisms:
- Engage with government agencies, policymakers, and regulatory bodies to:
  - Align the university's strategic priorities with national development plans
  - Advocate for supportive policies and funding schemes for higher education
  - Collaborate on the implementation of national digital transformation initiatives
- Cultivate partnerships with international organisations, donor agencies and development banks to:
  - Secure financial and technical assistance for campus upgrades and programme development
  - Participate in cross-border educational and research collaborations
  - Leverage expertise and best practices from global networks
- Strengthen industry partnerships and community engagement to:
  - Align academic programmes with evolving labour market needs
  - Facilitate internships, job placements and research collaborations
  - Explore opportunities for joint projects and revenue-sharing arrangements

o Beneficial Outcomes:
- Enhances the university's visibility, reputation and standing within the national and international higher education landscape
- Diversifies funding sources and secures additional resources for the university's development
- Fosters collaborative ecosystems that drive innovation, entrepreneurship and workforce development.

By implementing this comprehensive university sustainability plan, UMT can ensure the seamless operation and necessary upgrades to its ICT platforms, promote distance learning through strategic partnerships and leverage the support of government bodies, donors and EU

projects to accelerate its development and maintain its competitiveness in the rapidly evolving higher education landscape.

5.8 Fakultet primijenjene nauke Podgorica, FPRN, BE014

FPRN is committed to ensuring the financial sustainability of the e-learning platform and associated educational technologies beyond the duration of the current project, and as a private institution cooperating with relevant national bodies, industry and by participating in many regional and European projects it will secure the necessary resources for ongoing operation, maintenance, and improvement of these platforms.

- ✓ FPRN will continuously invest in integrating advanced ICT tools and methodologies into the education process. This will ensure that both teaching staff and students have access to the latest technologies and resources, enhancing the overall learning experience;
- ✓ Through participation in other local, national and regional projects, the FPRN will provide funds to improve the teaching process by including ICT sector in order to digitize the energy sector at the bachelor and master levels of education.

6. PLAN FOR COOPERATION WITH PARTNERS FROM BUSINESS

There is a common understanding in ensuring the sustainability of cooperation of the project WB HEIs with the partners from business.

WB HEIs frequently signs the memorandum of understandings with the partners from business, allowing experts from the business to hold lecturing. But, experts from business are also frequently very busy to leave the working jobs and go lecturing (especially when the distance from a company to a HEI is long), and thus decrease own work (and a profit) for a company. Since the scheduling for online lecturing is easier than the scheduling for face to face lecturing, the experts from a business will rather decide to cooperate with educational institutions using online teaching and holding lectures from the office.

The e-platform can serve as dynamic hubs for knowledge exchange, equipped with cutting-edge technology and interactive tools that enhance the learning experience. By opening up access to business partners, educational institutions not only expand their reach, but also foster deeper collaboration and mutual benefit.

Allowing business partners to use online platform for online education sessions offers several advantages. Firstly, it provides them with a platform to share their expertise and insights with a wider audience, including students, faculty, and professionals interested in the subject matter. This not only enhances the educational offerings of the institution but also positions it as a hub for continuous learning and professional development.

Moreover, by recording these sessions, business partners can create valuable educational resources that can be accessed on-demand, further extending their impact beyond the confines of a single session. These recordings can be archived and made available for download, serving as a repository of knowledge that can be accessed by students, faculty, and the broader community. The WB project institutions are willing to share such sessions to own YouTube channels or to other social media.

In addition to facilitating online education, online platforms can also serve as collaborative spaces for joint projects and initiatives between educational institutions and business partners. Whether it's hosting virtual workshops, conducting live demonstrations, or facilitating brainstorming sessions, these classrooms can provide a versatile environment for creativity and innovation to thrive.

By using online platform for these events, students from remote and isolated areas could also attend these events and be equal with students living in the HEI University campus.

By embracing the potential online platform and extending access to business partners, educational institutions can foster sustainable cooperation that enriches the learning experience, advances knowledge sharing, and strengthens ties between academia and industry. This collaborative approach not only benefits both parties involved but also contributes to the overall growth and development of the educational ecosystem.

Related to partnership with partners from a business for sending students for internship, developed e-learning platforms can be also used for communication between experts from a business and students. From time to time students who are getting some experience in companies may ask questions to experts or get appropriate material using the e-learning platform in a similar way as in standard classes. In this way experts may respond to questions when they have more time.

Fostering cooperation with business partners is essential for higher education institutions (HEIs) in the Western Balkans (WB) to enhance relevance, innovation, and employability of graduates. Here's a comprehensive plan to facilitate and strengthen collaboration with business partners:

1. **Mapping Industry Needs**: Conduct a thorough analysis of industry sectors and their specific needs for skills, knowledge, and research. Identify key sectors that align with the strengths and goals of the HEI.
2. **Establishing Partnerships**: Develop a structured approach to identify and establish partnerships with businesses and industry associations. This could include forming advisory boards, signing Memoranda of Understanding (MoUs), or creating joint committees to oversee collaboration.
3. **Promoting Industry-Relevant Research**: Encourage faculty and researchers to engage in collaborative research projects with industry partners. Seek funding opportunities for joint research initiatives that address industry challenges and opportunities.
4. **Internships and Work Placements**: Facilitate internships, co-op programs, and work placements for students within partner organizations. Establish mechanisms for feedback and evaluation to ensure the relevance and quality of these experiences.
5. **Industry-Driven Curriculum Development**: Work closely with industry partners to align curriculum with current and future industry needs. Incorporate industry-relevant case studies, projects, and guest lectures into courses to enhance practical learning experiences.
6. **Technology Transfer and Innovation**: Facilitate the transfer of knowledge, technologies, and innovations between HEIs and businesses. Establish technology transfer offices or innovation hubs to support collaboration on patents, prototypes, and commercialization opportunities.
7. **Professional Development Programs**: Offer customized training programs, workshops, and continuing education courses tailored to the needs of industry professionals. Collaborate with businesses to design programs that enhance workforce skills and capabilities.
8. **Joint Events and Conferences**: Organize joint events, conferences, and seminars that bring together academics, students, and industry leaders to discuss emerging trends, innovations, and opportunities for collaboration.
9. **Entrepreneurship and Start-up Support**: Provide support and resources for students, faculty, and alumni interested in entrepreneurship and start-up ventures. Establish incubators, accelerators, or entrepreneurship centers to foster innovation and business creation.
10. **Corporate Social Responsibility (CSR) Initiatives**: Collaborate on CSR projects and initiatives that benefit local communities and address societal challenges. Engage

business partners in volunteer activities, community development projects, and sustainability initiatives.

11. **Metrics and Evaluation**: Establish clear metrics and indicators to evaluate the impact and effectiveness of industry partnerships. Monitor outcomes such as student placements, research collaborations, funding secured, and industry feedback.
12. **Continuous Engagement and Communication**: Maintain regular communication with business partners to nurture relationships, address challenges, and explore new opportunities for collaboration. Seek feedback to improve partnership strategies and outcomes.

By implementing this plan, project consortium can foster meaningful and sustainable partnerships with businesses, enhance educational outcomes, promote economic development, and contribute to the region's innovation ecosystem.

БОЈАН ПРЛИНЧЕВИЋ 007711021 Sign

Digitally signed by БОЈАН ПРЛИНЧЕВИЋ 007711021 Sign
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Date: 2024.09.18 21:56:42 +02'00'

REPORT DONE BY:

[Phd Bojan Prlinčević]

[Phd Danijela Zubac]

REPORT PREPARED BY

Ljiljana Pecić, Aleksandra Grujić, Miroslav Voznak, Danijela Zubac, Bojan Prlinčević, Milan Mišić, Uroš Jakšić, Rene Prenc, Michele Rojnić, Christos Manasis, Maria Koukou, Joaquin Ordieres-Mere, Slobodan Bojanić, Marija Boranijašević, Dejan Blagojevic, Nebojša Arsić, Aleksandra Petrović, Dragana Radosavljevic, Slobodan Lubura, Srdjan Lale, Davorka Šaravanja, Mirela Juric, Petar Spalević, Nebojsa Bacanin Dzakula, Žaklina Spalević, Dael Dervishi, Anni Dasho, Maaruf Ali, Donald Elmazi, Nela Milošević, Sandra Tinaj.

CHECKLIST FOR REVIEW OF DELIVERABLE[1]

Project acronym:	**NEST4WB**
Project full title:	**NEW ENERGY COMPETENCE SYSTEM AND TECHNOLOGY FOR WB ENERGY STABILITY SYSTEM CURRICULUM REFORM**
Project No:	**101129321 (Call: ERASMUS-EDU-2023-CBHE)**
Coordinator institution:	**ACADEMY OF APPLIED STUDIES KOSOVO AND METOHIJA**
Coordinator:	**Phd Bojan Prlincevic,prof.a.s.**
Beneficiaries:	**SVEUCILISTE U RIJECI-TEHNICKI FAKULTET (UNIRI RITEH), Croatia** **ETHNIKO KAI KAPODISTRIAKO PANEPISTIMIO ATHINON (NKUA), Greece** **VSB - TECHNICAL UNIVERSITY OF OSTRAVA (VSB - TUO), Czech** **UNIVERSIDAD POLITECNICA DE MADRID (UPM), Spain,** **AKADEMIJA TEHNICKO-VASPITACKIH STRUKOVNIH STUDIJA (AATPS), Serbia,** **AKADEMIJA TEHNICKO-UMETNICKIH STRUKOVNIH STUDIJA (ATUSS), Serbia,** **UNIVERSITY OF MITROVICA (UPKM), Kosovo *,** **UNIVERZITET U ISTOCNOM SARAJEVU (UES), Bosnia and Herzegovina,** **University of Mostar (SUM), Bosnia and Herzegovina,** **UNIVERZITET SINERGIJA BIJELJINA (USB), Bosnia and Herzegovina,** **LUARASI UNIVERSITY (LRS), Albania,** **UNIVERSITETI METROPOLITAN TIRANA (UMT), Albania,** **FAKULTET PRIMIJENJENE NAUKE PODGORICA (FPRN), Montenegro.**

[1] *This form has to be filled and to be returned to author of deliverable and WP leader, and to the coordinator, on e-mail address:* nest4wb@akademijakm.edu.rs..

WP6

Deliverable D6.1 Creation of a sustainability plan

ASSURANCE POINT	ISSUES TO BE ADDRESSED	ASSESSMENT	COMMENTS	RECCOMENDATIONS
Compiliance with NEST4WB objectives	*Does the deliverable comply with the overall objectives of the project?*	▶ yes		
Compiliance with the specfic objectives of the WP	*Does the deliverable comply with the WP Objectives as specified in the WP description?*	▶ yes		
Correspondence with the description of work of the relevant activity	*Does the deliverable correspond with the activity description as specified in the Application Form?*	▶ yes		
Compliance with the deliverables format	*Is the deliverable presented using the Project's deliverable format – Annex K*	▶ yes		
Adequacy of complementary information	*Examples of complementary info:* *- Sources used,* *- Bibliography,* *- List of contacts,* *- Methodology used.*	▶ yes		
Adequacy of written language	*Level of written English*	▶ adeguate		
Overall assessment and suggestions for improvement	**I consider the report as appropriate.**			
Date of Quality Assurance performed by CQA ~~or EC~~ reviewer				
Deadline for submission of amended version of the Deliverable				

Reviewer signement:_____

prof. Ing. Miroslav Vozňák, Ph.D.

Digitálně podepsal prof. Ing. Miroslav Vozňák, Ph.D.
Datum: 2024.09.18 14:02:44 +02'00'

REPORT DONE BY:

_____

[Name and Surname]

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[Name and Surname]