

Development and Implementation of MDTV Curricula (DIMTV)

WP2 - Deliverable 2.4.5

Achieving academic sustainability Plan

Project Sustainability Plan

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Lead Organization: UAMD

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Table of contents

Foreword	3
1. Introduction.....	4
2. DIMTV project description and context	5
2.1 Aim and objectives.....	6
2.2 Specific Objectives	6
2.3 Consortium members	6
2.4 Project outcomes	6
3. Sustainability concept and project sustainability plan	9
3.1 Sustainability plan actions and steps	10
4. DIMTV project sustainability	11
4.1 The consortium’s sustainability strategy.....	11
4.1.1 DIMTV project sustainability and audience target after the end of the project (according to DIMTV application)	12
4.1.2 Target groups (including participating institutions, stakeholders) after the project is finished.....	13
5. Achieving academic sustainability	14
5.1 Achieving academic sustainability plan – UAMD.....	14
5.2 Achieving academic sustainability plan – EPOKA	18
5.3 Achieving Academic Sustainability plan – UP	20
5.3.1 Impact of the project in modernization and updating of courses (2018-2020)..	20
5.3.2 Impact of the project on developing new study programs with DIMTV courses/ specializations in bachelor and master level.....	20
5.3.3 Making institutions more competitive and attractive by promoting project sponsored curricula and labs to high school students.....	21
5.3.4 Sustainability plan.....	22
5.4 Achieving academic sustainability plan – UBT	23



Foreword

One of the main DIMTV project objectives is to ensure the sustainability of the project results after the end of the project lifetime. This document presents a sustainability plan to be adopted by the Erasmus+ Project DIMTV consortium partners as a guideline to ensure project sustainability. Its objective is to underline the activities designed to raise the awareness of a specific or general audience to the results and impact of this project. Each partner university must take a lead on dissemination within its own country and help to raise awareness amongst targeted groups and stakeholders in the national context.

1. Introduction

The Project Sustainability Plan (PSP) aims to provide important information about the DIMTV project continuity. The given specifications, orientations, and concrete actions will help the consortium and especially institutions from partner countries to ensure the sustainability of the project results after the European Union (EU) support ends.

This plan is prepared carefully by the project team, with representatives from each institution in the consortium.

DIMTV is a three-year joint capacity-building Erasmus+ project between five partner institutions from Albania and Kosovo and three Higher Education Institution partners from the EU. The main aim of the project is to develop and implement the Multimedia and Digital Television Curricula in Albanian and Kosovo universities. Activities within the project framework are organized under five Main Work Packages, as listed below:

- **WP1 Preparation:** Studying the MDTV situation in Albania and Kosovo.
- **WP2 Development:** Reviewing and restructuring the existing bachelor MDTV curricula; Innovating MDTV master curricula; Enriching infrastructure and teaching methodologies; Implementation of professional studies program; Fostering collaboration with industries and MDTV experts. PSP is a deliverable of WP2.4.
- **WP3 Quality Assurance:** Ensuring quality throughout the project timeline.
- **WP4 Dissemination and Exploitation:** Dissemination and exploitation of the results.
- **WP5 Management:** Operational, Financial, and Communication activities to achieve successful implementation of the project activities.

In this document information about the following will be found:

1. General Project information
2. Sustainability concept and main actions
3. Achieving Academic Sustainability plan for UAMD, EPOKA, UP, UBT.

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2. DIMTV project description and context

During the years the electronic media institutions in Albania have had an evident lack of specialists in the field of Multimedia and Digital Television (MDTV). During the transition period of the country, there was a wide-spreading and increase in the number of electronic media. Following this, a contradictory situation appeared. While the number of TV stations (public and private) and broadcasting services increased, the required professional support could not be provided due to the lack of a very low number of experts in the field. Therefore, the application of high-quality standards services became impossible. The lack of professional manpower can be manifested, in the low technical quality video, audio, and multimedia services provided. To cover this, experts from abroad have been hired, but this does not solve the unemployment problem of the country. Therefore, there is a need for national MDTV-graduated experts so that the country does not need experts from abroad.

Similar problems appear in Kosovo as well. An important scope of the DIMTV project is to increase the number of experts and qualified workers and to reduce the existing unemployment rate in the field of MDTV in both Albania and Kosovo. In the last years, the switch from analog to digital broadcasting has been a real challenge for both these Western Balkan countries. Despite the intensive efforts to make this switch, the full transition to digital TV transmissions has not been finalized yet. Even though huge investments have been done in media technology, the quality of broadcasting is not at the required level. Thus, great work is still needed to reach the required standards in the MDTV area. All these facts show the need for a fast solution to the problem. Through this project, we aim to contribute to the improvement of the actual situation in these countries and reduce both the unemployment rate and the lack of experts in the MDTV-related areas to an important extent.

To achieve this, UAMD will offer a new Professional Master with three specific specializations as Image Processing; 3D Animation; Production, and Post-Production. In addition to teaching, these modules, and the program itself will lead to higher research collaborations with EU partners. The curricula which will be developed will produce high-quality specialized young professionals and they will comply with the job profile requirements. Moreover, the professional support from the EU Partner Countries with their high expertise and knowledge in the MDTV field will be a valuable treasure for the universities/enterprises in Albania and Kosovo as well.

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2.1 Aim and objectives

Innovation and implementation of Multimedia and Digital Television study in Albania and Kosovo.

2.2 Specific Objectives

- Restructuring the existing curricula of the first cycle of Multimedia and Digital Television (MDTV) study program.
- Developing a new Professional Master curriculum in MDTV with specialized directions in Production and Post-Production, 3D Animation, and Image Processing.
- Building a new high-quality equipped laboratory.

2.3 Consortium members

The DIMTV consortium consists of 8 partner institutions. 5 of them are from Albania and Kosovo (Partner Countries) and 3 of them are from EU (Program countries). The partners are listed according to the list of beneficiaries found at the DIMTV Partnership agreement.

P1: Aleksander Moisiu University (Coordinator)

P2: Radio Televizioni Shqiptar

P3: Tartu Ulikool

P4: Turgut Ozal Education SHA

P5: Universiteti i Prishtinës

P6: Universiteti Ndërkombëtar për Biznes dhe Teknologji

P7: Univerza V Ljubljani

P8: Vysoka Skola Banska - Technicka Univerzita

2.4 Project outcomes

WP1: Analysis of MDTV study programs in Kosovo/Albania and related EU studies

1.1. Analysis of the general MDTV situation

WP2 (1): Reviewing and restructuring the existing bachelor MDTV curricula

2.1.1. Workshop: Learning from EU expertise in the MDTV area

2.1.2. Reviewing the existing MDTV curriculum

2.1.3. Defining competencies and learning outcomes for bachelor MDTV program

2.1.4. Printing bachelor's degree curricula

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WP2 (2): Innovating MDTV master curricula

- 2.2.1. EU Study visits
- 2.2.2. Innovating professional master (PM) curricula
- 2.2.3. Developing Image Processing Module
- 2.2.4. Defining competencies and learning outcomes for PM
- 2.2.5. Printing of PM curricula

WP2 (3): Enriching infrastructure and teaching methodologies

- 2.3.1. Training staff members on modules
- 2.3.2. Developing Animation Module
- 2.3.3. Developing Production/Post-production Module
- 2.3.4. Hardware/Software and Teaching material procurement
- 2.3.5. Staff Training for equipment
- 2.3.6. Preparing teaching materials and instructions

WP2 (4): Implementation of professional studies program

- 2.4.1. Accrediting developed MDTV PM
- 2.4.2. Student enrolment to MDTV PM
- 2.4.3. Realization of MDTV PM program
- 2.4.4. Students' feedback on the programs
- 2.4.5. Achieving academic sustainability

WP2 (5): Fostering collaboration with industries and MDTV experts

- 2.5.1. Formalizing collaboration with industry partners
- 2.5.2. Students' internship
- 2.5.3. Guest lecturing with MDTV experts

WP3: Quality plan

- 3.1. Internal quality assurance on bachelor program
- 3.2. Internal quality assurance PM program
- 3.3. External evaluation of study programs by experts

WP4: Dissemination and exploitation

- 4.1. Web site and social network promotion
- 4.2. Preparing marketing materials
- 4.3. Promotion in the Albanian/Kosovo high schools and universities

WP5: Project management

- 5.1. Steering/Project management committee meetings

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- 5.2. Organizing & coordinating project activities
- 5.3. Financial management
- 5.4. Preparation of interim and final reports

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3. Sustainability concept and project sustainability plan

There exist different definitions of the project sustainability term. In this document, we will refer to sustainability as the ability to continue meeting the goals, objectives and achieving the desired outcomes with the currently available resources in the future, after the end of the project and the end of the financial support by the EU. The vision that started the project application should continue. The EU funding, the project consortium, the human resources trained and skilled, and all the activities during the project time should be the basis and the foundation of the continuation of the results and not the end. What has already started should grow and work independently to keep realizing the initial vision.

After the end of the project, it is important to ensure continuity and sustainability. Project results should continue to be used despite the end of the financial EU support. The project team should have in mind since the beginning of the project the importance of sustainability and to work ahead at preparing a proper sustainability plan. There are different perspectives to consider sustainability, as listed below:

1. *Financial sustainability.* The project team should find ways and new opportunities to support financially the project results. Various sources of funding should be considered.
2. *Organizational sustainability.* It is important that what has been invested during the project timeline and with the support of the EU funding, be maintained and functional. Infrastructure, different resources should be maintained and allowed to produce results in the future.
3. *Operational sustainability* focuses on the potential to implement the project's activities and plans and actions after the end of the project.
4. *Multiplicativity of the project results.* Project impact should be reflected on reaching Target groups and growing beneficiary groups or other new stakeholders added to the list.

It is advisable to consider all the above-mentioned perspectives when preparing a sustainability plan.¹²

¹ <https://erasmusplus.kz/index.php/en/erasmus/information-for-on-going-projects/sustainability-and-impact>

² https://yesforfairtax.org/wp-content/uploads/2021/10/Sample_Sustainability_Action_Plan.pdf

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3.1 Sustainability plan actions and steps

This plan was prepared following the steps listed below:

1. Continuously analyse and quality measurements of the project results. Feedback from the students, staff, and EU partners. All the data collected helped to prepare a better PSP.
2. A clear and specified target group. From the beginning, it was clear what were the main target groups. During project activities, more stakeholders and beneficiaries were added to the list.³
3. Each institution has prepared a detailed plan with specific activities to achieve academic sustainability after the project end.
4. After finalizing the activities of the PMP, a detailed description of the resources and the operational activities to be made was given.⁴
5. Long impact on the target groups through website and dissemination, continuous cooperation, and continuous meetings should be organized and planned.

³ https://digitalcommons.usu.edu/cgi/viewcontent.cgi?article=2001&context=extension_curall

⁴ https://yesforfairtax.org/wp-content/uploads/2021/10/Sample_Sustainability_Action_Plan.pdf

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4. DIMTV project sustainability

4.1 The consortium's sustainability strategy

In the last DIMTV closing conference, a session dedicated to the PSP was set. Project teams from all the institutions and different stakeholders participated in this session. All the institutions from AL and Kosovo presented their sustainability plan. This was a valuable session of sharing ideas, exchanging experience, and brainstorming, and all the conclusions and the discussions are presented in this document.

The institutional and financial sustainability is a part of the sustainability plan that is developed after the completion of the WP1, WP2, and WP3 by their package leaders. This plan will be approved at each partner institution.

To ensure DIMTV project outputs and outcomes sustainability and impact the following main factors were considered:

- Development of high-quality curricula and courses by a depth assessment of the needs of the target groups for new skills and analyzing the long-term labor market trends to argue on the future attractiveness of the new innovative curriculum.
- Continuous, complementary, and well-balanced involvement of each partner.
- Involvement of students and target groups in project activities.
- The new curricula and courses' institutional sustainability is guaranteed by the accreditation of the study programs by appropriate academic bodies at universities from partner countries.
- The project partner Universities' human resources trained with updated methodologies, and teaching-research equipment and material resources will be integrated into daily activities and will ensure at least 5 years of organizational sustainability.
- Financial sustainability by university support after the accreditation of study programs. Mainly the program will be financed through the student fee and by sponsored grants, just like other existing MSc programs, so financial aspects of sustainability will not be a problem.
- Financial support from Universities for Multimedia laboratories.

Human resources play a key role in the continuity of the project results. Academic staff and the administrative staff involved in the project implementation and especially the academic staff trained during the project activities will have to be the ones to ensure the sustainability of the outcomes.

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Maintaining continuous communication with project stakeholders and different target groups after the project ends also has an important role in sustainability. To ensure the long impact of the project results on the target groups specified in the above section it is important to continue with the dissemination of the project activities through the website and other social media. The DIMTV website will continue to be active after the end of the project with the main aim to serve as a database where all the interested ones can have a look at the success of the project outcomes.

4.1.1 DIMTV project sustainability and audience target after the end of the project (according to DIMTV application)

After the completion of the project, developed study program will be constantly monitored and improved through the following processes:

- improving courses program and teaching materials reflecting technical innovations and state of the art in the field of MDTV.
- introducing new software tools in teaching and learning process.
- adequate maintaining of the equipment and purchase of new equipment.
- monitoring needs from industry and enhancing teaching materials.

Fostering higher education institutions cooperation with enterprises that operates in the Republic of Albania and Kosovo will have a substantial increase in the number of internships and professional experiences available for both bachelor and master students. There are high opportunities for an increased demand for multimedia and digital TV experts in Albania and Kosovo, mostly due to increasing number of broadcasting and media companies operating in these countries and planned switch to digital broadcasting technologies, as EU requirement. To have a financial support after the successful implementation of the project, UAMD will plan each year a specific budget fund for the laboratory maintenance and organization of workshops and other activities. All the partner countries will use their incomes to support further improvement of the curricula and organization of the promotional and increasing collaboration between the relevant entities that operate in the field of multimedia and digital TV. Higher education institutions may also use the teaching facilities to produce multimedia and digital TV for third parties, securing another source of financial funds.

4.1.2 Target groups (including participating institutions, stakeholders) after the project is finished

DIMTV projects partners are currently and will remain interested in participating in the MDTV Communities. New information on the topic will continuously be disseminated via these networks where the topic is among their core interests. We will plan to organize workshop, with both academic and students' participants, in which EU partners will have the chance to presents new developments in the field. Partners will also continuously use and build on the developed experience in DIMTV in their own future projects. In the longer term, project partners also envisage reaching future stakeholders.

The DIMTV team is building up relations with HEI institutions who are creating complementary research and are interested to offer curricula involving topics in the field of Image Processing, Animation and Production/Postproduction. In this respect, new partners from broadcast industry will Be crucial to help higher education institutions achieve their goal. Policymakers, education authorities, the broadcasts industry, the research community and DIMTV team, but also students, will have a ready insight into what has been done in this area, together with a categorization of the different Multimedia and Digital Television initiatives. Next to policymakers we also hope to provide education authorities, the broadcast industry, the research community, and multimedia researchers with trustworthy research results, in which feedback from all stakeholder groups has been incorporated and which can be used as standard literature.

5. Achieving academic sustainability

5.1 Achieving academic sustainability plan - UAMD

Developing and implementing the DIMTV curricula for the master program and establishing Multimedia Studio and Lab at the UAMD premises were two main successful outcomes of the DIMTV project.

The master program is a unique program not only in Albania but also in the region. It is the only possibility offered by Albanian universities to prepare technicians and experts in the field of Multimedia and Digital Television supported by a degree. Based on the labor market needs analysis, a deliverable of the WP1, and in cooperation with EU partners from the DIMTV consortium, the Multimedia and Digital Television Professional master program allows students to specialize in one of the three profiles, listed below:

- 3D Animation
- Production and Post-Production
- Image processing.

The Department of Information Technology at the Faculty of Information Technology at UAMD is the unit responsible for the successful implementation of the program. During the first year of the master's implementation, the academic year 2018-2019, 17 students were enrolled. In the second and the third year, 14 students were accepted to continue their studies in the professional master's program at UAMD.

The MDTV master program curriculum was developed considering the latest advancements in technology, the suggestions of EU experts in the MDTV field, and the labor market needs. During the years, project activities and resources funded by the EU have played a crucial role in establishing the proper foundation for this program to be developed and successful.

During this project timespan, an advanced and modern Multimedia laboratory and Audio-Video studio were established at UAMD premises to help students studying in the Multimedia study programs. This was a dedicated environment to practice their knowledge on the field and improve their skills. The multimedia laboratory and studio have been very active in attracting students, establishing Multimedia student groups, and developing Multimedia products. These two resources are used by professors during lectures and academic staff training.

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Since the beginning of the project, when analyzing the current Multimedia and Digital Television situation in Albania and Kosovo, the lack of academic staff specialized in the abovementioned profiles was identified. Using the project activities and funding different training modules were conducted at UAMD premises and EU partner premises during the project timeline. The aim was to specialize the staff in this field to ensure the sustainability of the program.

To ensure the sustainability of the outcomes and project results, the department, following the universities and faculty's vision and regulations has prepared a careful sustainability plan, for the resources that currently pose and that will not be supported by the EU after the end of the project. This plan was prepared following the logic and steps explained in the second session and aims to be a guideline for sustainability in the years following the end of the EU support. In the following paragraphs, details of this project are explained.

Financial sustainability. In principle, the master, after the project's financial support, will be financially supported through student fees and other sponsored grants that the department or the faculty will work to find. Based on the UAMD regulation, in case needed, the university can provide extra financial support for foreign professors to lecture in this master. The department will continue to lobby the university and other supporters to secure the financial resources in case they are needed to ensure the continuity of the master.

Multimedia Laboratory and Studio, after the project ends and the funding by EU ends, are planned to be used as new financial sources. Students coordinated by professors will give services to third parties to generate profit. This profit will be later used to maintain the equipment, laboratory, studio, organizing activities, and attract more and more students to the program.

Organizational sustainability. From an organizational perspective, the IT department will be the one responsible for ensuring the successful continuity of the program. The department will develop a strategy to attract new students to the master, such as:

- Promotion to high schools will continue
- Promotion to kids (future students) (open days, different training)
- Promotion to the community and the media about the importance of the market.
- Promotion in social media.

During the project timeline, the department has trained the academic staff in the field of Multimedia and has created a dedicated team to this field. This dedicated team will serve as a mentoring team to Multimedia students and will be responsible for managing the organizational activities of this master. This team will be responsible also for continuously

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studying the market needs, promoting Multimedia programs, being up to date with the latest advancements and changes in this sector. The trained staff will be integrated and involved in daily activities related to the MDTV study program will ensure organizational sustainability. This group will be the ones that will enquire about a request for curriculum and syllabuses update. This team includes academic and administrative staff from the Faculty of Information Technology.

Administrative staff will be dedicated to the maintenance of the equipment, lab, and studio. It is their responsibility to maintain the equipment, organize a schedule for the use of the lab and studio and work together with the Multimedia students' groups to help them use the equipment, practice, and even use them for multimedia products. This administrative staff will be responsible even for managing the financial resources when the lab and studio start to work for the third parties and earn revenue. The aim is that the studio will be a support for third parties starting from the second year, after the end of the DIMTV project.

Operational sustainability. To ensure continuity of the master and at the same time to see for new ways to supply the department with new lecturers and assistants, the department is working to develop and implement a Master of Science in Multimedia and Digital Television. The current professional master program can be organized in a way that can be transformed to a Master of Science diploma, following higher education law and UAMD regulation. Every semester, students' feedback will be collected, analyzed to evaluate the quality of the teachings and the subjects. Based on students' feedback the coordinator with the MDTV monitoring group will make the necessary improvement and will take the necessary steps to deal with the problems that might arise during the quality evaluation of the program master.

Every three years there will be an update of the market needs analysis to ensure that the study program will fulfil the needs of the labor market in Albania and the region and at the same time will open a door to the process of curriculum improvement. Every three years the department responsible for the study program will analyze the curriculum, the latest trend to understand if there is a need for innovation of the current curriculum. To respect the academic freedom of the lecturers' courses and syllabuses will be each lecturer's responsibility to update and to improve the quality, topics, and teaching material. The department and especially the MDTV group will play the role of monitoring the situation and evaluating the changes. Every year the UAMD administration at the UAMD library prepares a list of books that the UAMD might buy, based on the lecturers' request. In case there is a need for new teaching materials and new books for the Multimedia program, the lecturers will request resources following the UAMD call for new books.

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According to Albanian Higher Education law, study programs must be accredited by the national accreditation agency. This process takes place every 3, 4, and 5 years, depending on how long a study program has been evaluated by the agency. This will ensure the continuation of the study program and at the same time the quality of the program.

UAMD will continue to collaborate with EU partners of the DIMTV consortium after the project ends through new forms of cooperation and new forms of fundings. At the sustainability session at the DIMTV conference, UAMD discussed with EU partners how they might continue their collaboration. The main idea discussed was the development of a new joint study program between UAMD and one of the partners. UAMD and the Albanian government are working currently on making public universities in Albania to be more international and increase their international cooperation.

Accelerating Western Balkans University Modernization by Incorporating Virtual Technologies (VTech@WBs) is an ERASMUS + project where UAMD is the coordinator. This project is seen as the continuation of the DIMTV project, a step forward to the implementation of the new multimedia technologies in education. Since one of the specializations in the MDTV master is 3D animation, then we can combine 3D animation and Virtual technologies to solve problems in education and to modernize teaching methods. Virtual Technologies HUB aimed to be established during the Vtech project will work closely with Multimedia Laboratory and Multimedia students.

Multiplicativity of the project results. Dissemination mediums will continue to be active, even after the project ends to reflect transparency to the target groups aiming to attract students and all the parties interested and related to the Multimedia and Digital Television field. The project website and other social media profiles will be available to the public for a minimum of three years after the end of the project. Multimedia students have created their Multimedia TV media, broadcasting on YouTube and promoting the students' products, multimedia realizations, and activities.

The department has planned that after the project ends, the Multimedia LAB and Studio will be an open space for everyone to be involved and develop their ideas while using the equipment of the lab. The aim is to transform Multimedia LAB from a lab to a Multimedia workspace. Students, lecturers, different interested parties that are attracted by the multimedia field, and desire to express their know-how, ideas, will come together and find their group of people to be involved in different projects, using multimedia lab equipment.

In the end, the department will establish a Multimedia and Digital Television Committee with representatives from both industry, academia, and different stakeholders and interested parties. The committee is seen as a cornerstone to the sustainability plan of the

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master program. It will be one of the key elements to allow the continuous collaboration between both sectors and most important to link the needs of the companies with the resources of the academia and at the same time to allow student internships in the industry and to strengthen the link of knowledge application. This will help experts from the field contribute to the continuous development of the curricula, will allow companies to be in touch continuously with students to help them integrate into the business sector. On the other hand, the relation between both sectors will help the department promote, improve, and keep the quality of the students and the curricula under the needs of the market.

5.2 Achieving academic sustainability plan – EPOKA

The following plan aims to ensure not only a successful implementation of the project but also to provide results that go beyond the normal duration of the project in the framework of sustainable professional management and organizational ecosystem. It aims to develop, assess, report, track, disseminate teaching and learning outcomes of the Image Processing Module program at EPOKA University. EPOKA University, through the Computer Engineering department (CEN) where the Image Processing Module is developed and offered to master students, will follow some action steps to provide a sustainability plan beyond the lifetime of the project. Regarding the equipment from the project, each of them has a unique number registered in EPOKA Inventory Database. Also, the new books purchased from the DIMTV project are available on the EPOKA library and they also have a unique number and a system to track their use. EPOKA University will be responsible for its use and maintenance.

After the end of the project, the main monetary contributions to the CEN department will be the student fees. The goal of the CEN department is to increase the number of students on one hand and on the other hand to maintain direct connections with the labor market and stakeholders interested in hiring students with Digital Image Processing backgrounds in the field of Multimedia & Broadcasting, Biomedical field, or IT market.

The first action step that will be taken is to create an Advisory Board for the CEN department composed of internal and external members offering innovative advice and dynamic perspective on the future of the Image Processing Module. Members of the board will: Head of CEN department, Academic program coordinator, Alumni from the respective labor market, and Member from the labor market. The board will ensure the results of the Image Processing module beyond the project lifetime. The main objective of the board is to assess student learning outcomes and improve the learning outcomes of the Image Processing Module and study program where it is offered: align curriculum activities with

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the learning outcomes for further development and improvement of the respective study programs in the CEN department.

The second action step that will be taken, is the use of qualitative and quantitative data in the evaluation of its courses and teaching, including feedback from students and stakeholders to identify the strength and weaknesses of the Image Processing Module and the study program where it is offered. The purpose of analyzing the collected data is to be updated with what the labor market wants and to make research to identify potential other interested parties in students with a background in Image Processing for Multimedia and Broadcasting.

The third action step will be to schedule a periodic meeting with interest partners where their representative will be invited to present some state of the artwork & research. The topics and invited partners will be decided by the data collected on the two previous action steps.

The fourth action step will be to push students to create small Start-up mentors by the professors and participate, also in groups or alone, in international/national events/conferences/competition to gain broader visibility of their study of application and maybe to find new stakeholders. They should identify what product from the CEN department can be used by the market to produce income for projects expensive. To achieve this result, they will develop a marketing plan, select members from Advisory Board, and together they will brainstorm and come out with precise strategies for meeting with potential stakeholders/individuals. They will manage all the receiving fundings.

The fifth action step will be to finalize as much as a possible memorandum of agreement or/and memorandum of understanding with country partner/stakeholders/universities etc. Exchange master students with other Universities in the field of Image Processing or complementary field will increase the students' background and will prepare more of them for the labor market.

The Sixth action step is the most important one, as we aim to use the know-how in the field of Image Processing for Multimedia to provide the final available products ready for the market. The laboratory and good human resources and hiring qualified staff will be the main asset to achieve this goal.

The Last action step will be research collaboration among members of DIMTV not only to increase the influence in the research community but also to gain visibility and introduce students to research problems.

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5.3 Achieving Academic Sustainability plan – UP

Before we discuss the sustainability plan, let us first present the main project objectives and deliverables at FECE/UP.

The main objectives of this project are:

- I. Restructuring and modernizing the first and second cycle ICT study programs by enriching teaching methodologies and introducing new DIMTV content
- II. Establishing a new multimedia laboratory
- III. Developing academy-industry cooperation in the multimedia and broadcasting sector
- IV. Producing skilled employable graduates in the sector
- V. Making institutions more attractive and competitive in the region and beyond

Project deliverables:

There were several project deliverables at FECE/UP during the lifetime of the project. The deliverables are listed below:

Project impact in the curriculum development process

5.3.1 Impact of the project in modernization and updating of courses (2018-2020)

Project updated and re-structured courses were offered to start from the academic year 2018/2019. Project impact: providing lab components to DIMTV courses, enriching course teaching methodologies, providing software tools for course delivery, updating teaching materials, re-structuring course syllabuses, etc.

- > 100 students attended updated courses in the academic year 2018/2019
- > 100 students attended updated courses in the academic year 2019/2020
- > 12 academic staff benefited from training organized by EU partners

5.3.2 Impact of the project on developing new study programs with DIMTV courses/ specializations in bachelor and master level

New study programs, bachelor, and master in ICT, with new courses/specializations/ content in the field of multimedia and broadcasting technologies, are prepared and approved by the university. The same was accredited by external experts for 3 years 2021-2024 after which period the faculty will apply for reaccreditation.

New attractive courses added to both levels of study programs: Internet technologies, broadcast technologies, Communication networks, Multimedia technologies and systems,

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Animation, Virtual reality, Applied digital signal processing; Image processing, and Computer Vision; 3D Animation; Selected topics in Multimedia Communications.

The teaching methodologies are advanced by enriching the academic process with project-developed knowledge on applying new software tools, using high tech equipment, to deliver courses, and make students active participants in the class.

- ✓ **Multimedia LAB- Enriching teaching infrastructure** - where students developed DIMTV supported courses and follow lectures with experts from Industry on selected topics for different courses. Students have acquired new practical competencies and skills working in project sponsored labs which will make them more employable
The lab is being used by students and staff of the university on regular basis for teaching, learning, and thesis research activities.
- ✓ **DIMTV Library** was established at FECE/UP from which students will benefit greatly from new literature to broaden their knowledge on state-of-the-art topics and select the thesis topics
- ✓ **Formalizing collaboration with industry** - MoU with relevant industry for enabling student internship to produce skilled employable graduates in the sector. The students of faculty, after successful completion of the Internship Program, and respective assessment of gained knowledge and competencies, are awarded 6 ECTS credits. Students have an opportunity to work on professional projects in the DIMTV industry and face the challenges of the profession as future radio and broadcast engineers. MoU will enable also that staff from professional companies to be invited for lectures. The partnership built with industry stakeholders in the field of digital multimedia will continue beyond project life

5.3.3 Making institutions more competitive and attractive by promoting project sponsored curricula and labs to high school students

The faculty study offers became more attractive with a project-sponsored modernization of curricula. This offer is promoted to high school students and other relevant stakeholders. Added modules make the institution more attractive and competitive at regional and national levels. Promotion materials, such as brochures, new program catalogs, pens, USBs, notebooks, etc, were designed and printed with DIMTV project funds. The same was distributed to new students and high school students. The teaching staff and students of the Faculty of Electrical and Computer Engineering of the University of Prishtina have also promoted DIMTV/ICT study modules to Kosovo high schools. Industry representatives have joined promotion activities to share with high school's pupils their experience, success stories, and career opportunities in the ICT/DIMTV fields

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5.3.4 Sustainability plan

Dissemination of project results plays a strong role in sustainability because dissemination of project results it is ensured and sustained the project impact in the long run.

Dissemination of project outcomes:

1- Identify the target groups to be reached with information on the project outcomes

- Faculty website
- Social networks
- Printed materials (brochures, posters, flyers, etc)
- Electronic materials
- Company visits
- Industrial Advisory Boards
- Research networks
- Alumni organization
- Student union representatives
- Visits to high schools

After continuous analysis and quality measurements of the project results, feedback from the students, staff, and EU partners, we were able to prepare a sustainability plan.

For each project deliverable, FECE/UP has a well-prepared plan to maintain sustainability:

- Project-developed curricula will continue to be offered by the Faculty of Electrical and Computer Engineering beyond project life. The programs are accredited till 2024, after this period faculty will apply for re-accreditation. The study programs are affiliated with UP.
- Periodically conducting student evaluation on courses/programs
- The laboratory inventory and equipment are registered as university assets, so the university should take care of maintenance and upgrade.
- Human resources trained with updated methodologies, and teaching-research equipment and material resources will continue to be integrated into daily activities and offered beyond project life.
- The faculty will continue to promote the new study programs to target groups.
- University will continue collaboration with the DIMTV industry beyond project life. The cooperation is focused on: internship (mandatory ECTS credits), guest lectures, and joint professional projects.

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- The sustainable network between project partners with collaboration with EU and partners from Albania in different projects: Erasmus+ VTECH@WBs, possible H2020, etc.

5.4 Achieving academic sustainability plan - UBT

In principle, the course modernization in UBT study programs accounts for 41 Courses in all UBT faculties. The future financial investment will be minimal as equipment already exists, staff has been trained, syllabuses of modernized courses will be reflected upon new technologies applied as teaching staff is proactive therefore, we don't see any financial burden regarding MDTV courses carry on.

To ensure MDTV outputs and outcomes sustainability and impact the following main factors were considered:

- Several Faculties within UBT were involved as of 2019 to identify courses, wherever potential is through by an in-depth assessment of the needs of the target groups, course development tied and related to mission and vision of the institution, course materials, use/application of technologies suitable for the teachers and student use as well, Accessibility, scalability and practical use of labs to ensure long term positive effects were all part of the real sustainability to be in place when the project is complete in terms of duration but to continue.
- New skills and analyzing the long-term labor market trends to argue on the future the attractiveness of the new modernized innovative courses where students will be able to find jobs easier in this industry.
- Continuous, complementary, and well-balanced involvement of each partner.
 - Involvement of students and target groups in project activities.
 - The new courses application and institutional sustainability are guaranteed by the accreditation of the study programs by appropriate academic bodies at UBT has occurred in 2020/ and 2021 and will continue in future years.
- Modern equipment use has been accomplished during project training at partner countries, prior experience, etc. including methodologies, and teaching research and they will further be integrated with daily activities and will ensure years of organizational sustainability
- Maintain pro-activeness, innovative teaching, and overall well-balanced technical and soft skills will ensure further promotion of MDTV achievements and employment

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results for the young where the project is expected to have a future impact in providing a qualified ready workforce for the local TV/Media broadcasts.

- The future upgrades of the courses or future study programs will have an MDTV roadmap, they will be accredited, the programs will be financed through the student fee and by sponsored grants wherever possible as teaching staff already have a strong desire to take part in future actions to further upgrade entire cycle whether personal, institutional or countrywide so financial aspects of the sustainability will not be an issue.
- The sustainable project results are the curricula and courses including e-learning and blended learning courses, laboratories equipped with IT equipment, laboratory works, project webpage who will become network webpage, also posted on official collage web site, training materials available, knowledge sharing, etc.
- Future consortium agreement for future projects with the existing partners to tie to MDTV will be a matter of continuation, a new beginning.