

# **TOWARDS INDUSTRY 4.0 IN KOSOVO**

Academia, Smart City and World of Business
Strategic Partnership







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# TOWARDS INDUSTRY 4.0 IN KOSOVO

Academia, Smart City and World of Business Strategic Partnership

ALLED2 – "Aligning Education and Training with Labour Market Needs - Phase II" Project, funded by the European Union (EU) and the Austrian Development Cooperation (ADC), implemented by the Austrian Development Agency (ADA)

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# **List of Acronyms**

AB Advisory Board

ADA Austrian Development Agency
ADC Austrian Development Cooperation

ADO Academic Development Office

ALLED Aligning Education and Training with Labour Market Needs

ALLED PIU ALLED2 Project Implementation Unit COSME EU Program for the Competitiveness

of Small and Medium-sized Enterprises

COVID-19 Coronavirus Disease of 2019

DHBW Duale Hochschule Baden-Württemberg

EC European Commission

EEN Enterprise Europe Network

EHEA European Higher Education Area
EIT RIS European Institute of Innovation

**Regional Innovation Scheme** 

ERASMUS+ EU's Programme to support Education,

Training and Sport in Europe

ETF European Training Foundation

EU European Union

EUA European University Association
FAV Faculty of Agriculture and Veterinary

FE Faculty of Education

FECE Faculty of Electrotechnics, Computing and Energetics

FME Faculty of Mechanical Engineering

HE Higher Education

HEI Higher Education Institutions



HERAS Higher Education Project-ADA Funded

ICT Information and Communications Technology

IPA Instrument for Pre-accession Assistance

KAA Kosovo Accreditation Agency
KCC Kosovo Chamber of Commerce

KIC Knowledge and Innovation Communities

LLL Lifelong Learning

LLLC Lifelong Learning Center

LMNA Labour Market and Skills Needs Analysis

MES Ministry of Education and Science

MEST Ministry of Education Science and Technology

(now MESTI- Ministry of Education Science Technology and Innovation)

MoU Memorandum of Understanding NGO Non-Governmental Organization NQA National Qualification Authority

OECD Organization for Economic Co-operation and Development

PIU Project Implementation Unit
RI Research and Innovation

SEE South East Europe

SES Smart Educational Systems

S3 Strategies for Smart Specialization

TEMPUS Trans-European Mobility Programme for University Studies

TUM Technical University of Munich

UASF University of Applied Sciences in Ferizaj

UBC University Business Cooperation

UBT University for Business and Technology

UP University of Prishtina

UPCO University of Prishtina for competitiveness/competencies/cooperation

VET Vocational Education and Training

## **Summary**

In this study development of the University of Prishtina (UP) cluster/hub is presented through all phases, from concept-design development to its institutionalization, promoting institutional triple helix approach in practice applied for the first time in Kosovo, supported by the ALLED2¹ project. Comprehensive assessment of current capacities as well as future needs was conducted to serve as a bases for proposed systematic step forward towards application of the triple helix concept, with third mission of university through entrepreneurial university in place, to support VET and private sector smart development.

Current context and trends in the EU and Kosovo were analyzed and discussed through structured consultation and consensus reaching process towards defining credible and efficient competence cluster/hub setting with strong promotion of innovative teaching/ learning and systematic application of EU Key Competence Framework and Green Agenda included with the aim to support industry through high quality VET provision, especially valid for post COVID-19 recovery period. The study was carried out to support the creation/establishment of a proper model for structured cooperation of UP with relevant government Institutions (local and/or central level), other HEIs, VET providers and business community. The state of play in regard to the legislative and strategic framework as well capacities and future needs at the UP were assessed. In addition, semi-structured interviews with UP representatives as well as with other relevant stakeholders were carried out. A core working group composed of the University of Prishtina nominated representatives, ALLED2 team and local and international experts worked on the development of the concept model. The whole process started in the second half of 2019 and finalized in the beginning of 2022, consequently changes and trends caused by COVID-19 pandemic at global and local level are/were reflected and solution applied is expected to contribute to post COVID-19 recovery.

Applicable cluster/hub model based on the enabling legislative and strategic framework as well on the existing capacities of the UP is developed. The model was broadly discussed and consensus reached and two implementation scenarios were proposed. First scenario was about a cluster/hub as unit within an internal structure of the UP whereas the second (advanced) scenario presents opening of the University through structured cooperation with the world of business and provides enabling framework for structured cooperation

<sup>1.</sup> The project "Aligning Education and Training with Labour Market Needs – ALLED Phase II" (in further text ALLED2) is funded by the EU, as a part of IPAII for Kosovo with co-funding by the Austrian Development Cooperation – ADC and implemented by Austrian Development Agency (ADA) in Kosovo.

of most relevant triple-helix partnerships, in line with Action Area 1 – Pact for Skills of the European Skills Agenda (July 2020). UP management showed the commitment to follow scenario that provides more opportunities for the institution (the external/advanced model) with third mission of the University ensured. As a next step, a strategic framework and other needed documents were drafted in order to proceed towards its institutionalization.

While in 2019 it was still an idea, now the UP cluster/hub (named UPCO) becomes reality. The institutionalization process was initiated 2020 with Memorandum of Understanding (MoU) between UP Rector, President of the Kosovo Chamber of Commerce (KCC) and City of Prishtina Mayor expressing readiness to be co-founders of the future institution. The MoU served as base for next steps, signing of the UPCO Establishment Act, Statute, a 3-year strategic framework with action plan and preparation for UPCO office location. The agreement between the founding partners (University of Prishtina, Municipality of Prishtina and the Kosovo Chamber of Commerce) was finalized in January 2022. With the further support of ALLED2 project interim manager was selected to support official registration process, initial positioning of the UPCO with his visual identity defined and web page created as well as office set-up functional at the UP Faculty of Education premises.

Supporting and strengthening the structured cooperation between academic world, public sector and industry/business community (Triplex helix in reality) through UPCO is a sound ground for successful provision of qualitative education including VET and fostering an entrepreneurial eco-system in Kosovo in line with latest technological trends and developments. Furthermore, it will explore the potential for excellence in teaching/learning, innovative entrepreneurship technology transfers on local and national level, following EU trends. Cluster Hub will open new opportunities to UP and its partners for better aligning with EU policies, trends and developments<sup>2</sup> and programs contributing to knowledge based economic and societal development of Kosova. At the end of the 2021 Kosovo become full-fledged member of EU Horizon program, European Institute of Technology and Innovation (EIT) and recently established European Innovation Council programs where UPCO just in time, being operation in the beginning of the 2022, serves as smart capacity for all recently available opportunities.

UPCO will contribute to UP to extend its traditional mission, focusing on teaching and research, to the so-called Third Mission, which has become a major policy concern in recent years in Europe, is a step forward in Kosovo's EU integration path. The Third Mission has assumed an increasingly crucial and strategic role of universities in seeking to support and generate knowledge outside academic environments to the benefit of the social, cul-

<sup>2.</sup> With great/sound possibility/probability of EU programs support

tural, and economic development through structured University-Business Cooperation.

UPCO will contribute to the City of Prishtina, to promote EU sustainable development best practices through smart city frameworks that will enable Kosovo's Capital, to lead in addressing growing urbanization challenges and sustainable development of cities.

UPCO will contribute to the Kosovo Chamber of Commerce (KCC) to further engagement in the alignment of education with the labor market and infrastructural support to entrepreneurs, in the service of the Kosovo economy.

This structured cooperation of three founding partners in the establishment of Cluster/ Hub is a step forward towards smart specialization and Industry 4.0 supporting Kosovo's EU integration agenda.

### 1. Introduction

Universities are no longer expected to work in isolation; rather, they are perceived to be interactive players working closely not only with industry but with community and government<sup>3</sup>. In order to improve the quality and performance of higher education, it is recommended to involve all interested parties to implement efficiently smart educational systems (SES)<sup>4</sup>. In addition, European Commission (EC), designed, implemented and monitored Research and Innovation (RI) Strategies for Smart Specialization (S3) in the framework of a set of directives, regulations and communications at EU level. The Smart Specialization, brings together academia spheres, business community and the governmental authorities, cooperating for the implementation of different developmental strategies supported by EU funds<sup>5</sup>.

It is evident that EU policy framework points out the importance of the changes in the world of skills and up-skilling opportunities<sup>6</sup>,<sup>7</sup> while the role of Higher education is considered crucial also in facing the challenges of the COVID-19 pandemic<sup>8</sup>. It is important to emphasize that COVID-19 pandemic created many opportunities and facilitated changes in Higher Education Institutions<sup>9</sup>.

Recent development in the HE at the international level are characterized by the introduction of education cluster/hubs/centers aiming to harmonization of education and training with the current needs of the world of work. "Clusters" and "hubs" structures are being applied in many sectors. When used in an applied sense, denote a group, gathering, center, nucleus, core or collection cooperating together<sup>10</sup>. At EU level, the cluster is considered an instrument of industrial policy, research and a competition and cooperation generator<sup>11</sup>.

<sup>3.</sup> Altbach, P.G., Reisberg, L., Rumbley, L.E. (2009). Trends in Global Higher Education: Tracking an Academic Revolution. UNESCO 2009 World Conference on Higher Education.

<sup>4.</sup> Bătăgan I, Boja C. and Cristian, I. (2011). Smart Educational Systems and Education Clusters. International journal of education and information technologies, 4 (5) 452-460

<sup>5.</sup> European Commission (2014). The Role of Universities and Research Organisations as Drivers for Smart Specialisation at Regional Level. DG for Research and Innovation. Brussels, European Commission. doi:10.2777/64550.

<sup>6.</sup> European Commission (2020). European Skills Agenda for sustainable competitiveness, social fairness and resilience. <a href="https://ec.europa.eu/mi-grant-integration/librarydoc/european-skills-agenda-for-sustainable-competitiveness-social-fairness-and-resilience">https://ec.europa.eu/mi-grant-integration/librarydoc/european-skills-agenda-for-sustainable-competitiveness-social-fairness-and-resilience</a>

<sup>7.</sup> European Commission (2020). Proposal for a Council recommendation on vocational education and training (VET) for sustainable competitiveness, social fairness and resilience. COM (2020)275 final.

<sup>8.</sup> CoE (2021) Higher education's response to the Covid-19 pandemic. Council of Europe Publishing.

<sup>9.</sup> Dennis, M. J (2021) The role of higher education in a post-COVID-19 world. Enrollment Management Report / Vol. 24, Iss. 11.

<sup>10.</sup> Knight J. (2011) Education Hubs: A Fad, a Brand, an Innovation? Journal of Studies in International Education, 15: 221.

<sup>11.</sup> Bătăgan I, Boja C. and Cristian, I. (2011). Smart Educational Systems and Education Clusters. International journal of education and information technologies, 4 (5) 452-460.



Knowledge hubs/clusters are a new generation of cross-border education activities which bring together a different stakeholder—including students, education institutions, companies, science and technology centers—who collaborate in a strategic way on innovation initiatives and cross-border education<sup>12</sup>. The unstoppable progress of globalization will oblige Higher Education Institutions (HEI) of all kinds to prepare students with skills and knowledge that will support the permanent increasingly borderless economy. This challenge requires policymakers, administrators, and university professors to reconsider the structure of traditional degree programs as well as the pedagogy of the past<sup>13</sup>.

Different types of clusters will bring together HEI to engage actively with enterprises, community organizations and regional authorities to provide education and research programs and to engage in knowledge exchange<sup>14</sup>. "Combining" continuing education and career development is considered the right way to address the need for the new opportunities of the graduates who are already in work. Further, it creates opportunities in the individual development and adaptation to the changes as well as the dynamics in science and technology.

Skill mismatch (skill gaps) in labor market (VET, secondary and tertiary education leaves graduate unprepared for the market needs) was and is continued to be an intensely debated fact in Kosovo <sup>15</sup>, <sup>16</sup>, <sup>17</sup>, <sup>18</sup>. On the other hand, strategic documents at national level *as well as the strategy of the University of Prishtina*<sup>19</sup> put emphasis on the need for alignment of the education and labor market needs. As regard to the emerging skills forecast, the ALLED2 LMNA study<sup>20</sup> listed: Engineering skills; ICT related skills; General skills (team work and communications skills, foreign language creativity and innovation) and Agriculture & food production skills.

Addressing the raised concerns, an assessment of the current situation as regard to the legislative and strategic framework as well as UP structures and capacities to develop training structure and enhance university – enterprise link (establishing cluster/hub) was carried out and

<sup>12.</sup> Knight J. (eds.) (2014). International education hubs: student, talent, knowledge-innovation models, Dordrecht: World University News, 8 March, No. 262.

<sup>13.</sup> Altbach, P.G., Reisberg, L., Rumbley, L.E. (2009). Trends in Global Higher Education: Tracking an Academic Revolution. UNESCO 2009 World Conference on Higher Education

<sup>14.</sup> HEA (2014). From Regional Clusters to Knowledge Hubs: HEA Forward-Look Forum. <a href="https://hea.ie/assets/uploads/2017/04/hea\_forward-look\_forum\_26.11.14\_discussion\_paper\_1.pdf">https://hea.ie/assets/uploads/2017/04/hea\_forward-look\_forum\_26.11.14\_discussion\_paper\_1.pdf</a>

<sup>15.</sup> STIKK (2013). ICT Skill Gap Analysis. Prishtina, Kosovo.

<sup>16.</sup> ACC (2017). Skills Gap Analysis. Prishtina, Kosovo,

<sup>17.</sup> USAID (2015). Kosovo Workforce readiness assessment (final report ).

<sup>18.</sup> KEEN (2019) Vocational Education and Training in Kosovo: Challenges and Opportunities.

<sup>19.</sup> UP (2016). "Strategy and Action Plan of the University of Prishtina 2017-2019.

<sup>20.</sup> Krasniqi, B. (2019) IESB Institute: Labour Market and Skills Needs Analysis; Perspective for the future. Kosovo: Publication of "Aligning Education and Training with Labour Market Needs 2" project. ISBN: 978-9951-8990-0-0.

reported<sup>21</sup>. The study was carried out to support institutionalization of a Cluster/hub meaning also to support innovative structured approach based on *triple helix* principle and knowledge triangle (*structured public sector – academia – business cooperation*), especially for VET and HE, not only responsive to the labour market needs but also contributing to economic growth and overall sustainable development of society. Therefore, the cooperation between the academic world, the public sector and the industry/business community (Triplex helix in reality), is a prerequisite for successful provision of qualitative education including VET and fostering an entrepreneurial eco-system also in Kosovo.

The designed cluster/hub should contribute to the economic growth also through better communication between the educational system and the business environment in Kosovo. Further, cluster/hub will be contributing to regular update of needed qualifications in respective sectors based on global technological trends and developments. It is also expected to contribute to the harmonization of education and training with the current needs of the world of work.

Taking into consideration the latest developments at the global level, it is evident that COVID-19 pandemic negatively affected human lives and the economy and exposed many weaknesses. On the other hand, COVID-19 pandemic triggered the great acceleration towards increasing use of the modern technologies as an opportunity<sup>22</sup>, <sup>23</sup>. In addition to digitalization, the COVID-19 crisis has also increased the awareness on the need for green transition<sup>24</sup>. However, while responding with recovery plans, many countries ignored the environmental and climate change issues<sup>25</sup>. In this context, it is worthy to underline that GreenComp (as part of the EU's strategic action) promotes learning on the environmental sustainability aiming to acquire the knowledge and skills needed to achieve the transition to greener economy<sup>26</sup>.

These trends are further encouraging to suggest the establishment/development of the suitable models at the University of Prishtina and Kosovo and this is the purpose of this innovative setting proposed through functional and applicable model of Cluster/Hub.

<sup>21.</sup> ALLED2(2020). "Baseline assessment report under the assignment: "Expert support to the University of Prishtina ALLED2 for targeted faculties to develop a cluster/hub to serve industry and VET".

<sup>22.</sup> Amankwah-Amoah, J., Khan, Z., Wood, G, Knight, G. (2021) COVID-19 and digitalization: The great acceleration. Journal of Business Research 136, 602–611.

<sup>23.</sup> De Vet, J.M., Nigohosyan, D., Nunez Ferrer, J., Gross, AK, Kuehl, S., Flickenschild, M. (2021). Impacts of the Covid-19 pandemic on EU industries. Policy Department for Economic, Scientific and Quality of Life Policies European Parliament.

<sup>24.</sup> De Vet, J.M., Nigohosyan, D., Nunez Ferrer, J., Gross, AK, Kuehl, S., Flickenschild, M. (2021). Impacts of the covid-19 pandemic on EU industries. Policy Department for Economic, Scientific and Quality of Life Policies European Parliament.

<sup>25.</sup> IBC (2021) Measures to Green the post-pandemic period. https://unece.org/sites/default/files/2021-02/IBC%20Env%20Green%20post-pandemic%20measures%2031.1.21.pdf.

<sup>26.</sup> Bianchi, G., Pisiotis, U., Cabrera Giraldez, M. GreenComp – The European sustainability competence framework. Bacigalupo, M., Punie, Y. (editors), EUR 30955 EN, Publications Office of the European Union, Luxembourg, 2022;

# 2. Approach and Methodology

Aiming to meet the objectives the approach consisted of the steps for the assessment of the current situation as regard to the legislative and strategic framework as well as UP structures and capacities and enhance university – enterprise link (to establish cluster/hub). The process was very participative and a core working group has been established with nominated deans from respective faculties and a vice rector of UP. The process has undergone through systematic approach of consensus building and development of common understanding towards new trends and ideas that were agreed among all working group members. This important joint working journey went through 4 main phases:

#### Desk research:

- Literature review (including policy documents) at national and international level;
- Analysis of current developments within Higher Education and research on global, EU and Kosovo level.

#### Interviews:

Key stakeholders and partners (UP and targeted faculties, relevant agencies and institutions) were interviewed. Semi-structured interviews carried out with the representatives of the UP (Rectorate) as well as representative of four Faculties of the University of Prishtina (Faculty of Agriculture, Faculty of Mechanical Engineering, Faculty of Electro and Computer Engineering and Faculty of Education) which are subject to ALLED2 project support. Interviews with the UP and Faculties representatives were focused on the main issues as following: Available regulation on the specific structures/bodies; Experience, functioning, staff, involvement in services/trainings; Trainings under the frame of the institutes; Advantages, obstacles in the functioning of Institutes, centers; Experience, functioning, the level of cooperation with the academic unit; Eventual requests from the industry for training that would be important for the UP unit; Involvement in the program (academic) design in the previous rounds of the accreditation process; Initiatives for short cycle studies, trainings, certifications; Link to regulated professions that require specific training (certificates) for the licensing (need for trainings for the specific professions); Existing cooperation between two parties.

An important group of the interviewed persons were members of the advisory boards from targeted faculties aiming to bring their experience and perspective on the following issues: Experience, functioning, staff, involvement in services/trainings; Eventual request from the industry for training that would be important for the recruitment and staff development.

opment in different professions; Interest shown by the public or private sector for these services; Already existing cooperation (such as internships, services to third parties, training etc.) signed by MoU between two parties.

Department of VET and department of the HE with MEST were interviewed to assess the current situation as regard to: Needs for training programmes and the training sources for VET schools- role of HE providers.

Representative of the Kosovo Chamber of Commerce (KCC) brought the perspective as regard to: Interest of the public or private sector for short cycle studies, trainings, certifications; Partnerships at local, regional, national and international level to provide attractive and relevant programs; Link to regulated professions that require specific training (certificates) for the licensing (need for trainings for the specific professions); Existing cooperation between two parties. The perspective of the actual developments in other HEI (both- public and private is taken too).

In addition to the interviews, the available data in the respective web-sites as well as additional documents provided by the interviewed partners were taken into consideration and analyzed.

#### **Core Working Group**

As a follow up, a core working group composed by: the representatives of the University of Prishtina (Rectorate and four academic units supported by ALLED2) and ALLED2 (PIU. local and international experts) was established. Many meetings and discussions were organized aiming to develop a concept-model which will serve as a cluster/hub for innovative teaching/learning (with application of EU Key Competence Framework<sup>27</sup>). The current context and modalities on EU and Kosovo were taken into consideration.

Diversified and methodologically reach approach and a very compact and representative working group resulted in an excellent collaboration towards same objective. The process applied brought to the maturity of ideas and to the achievement of distinguished joint results and suitable solutions. This was important as it presented a systematic approach of consensus building and development of common ground towards new trends and ideas that were agreed among all working group members. In addition, this created conditions for consensus building regarding the suitability and applicability of the proposed Cluster/ Hub for UP.

<sup>27.</sup> Official Journal of the European Union (2018). Council Recommendation on Key Competences for Life-Long Learning (2018/C 189/01).



#### Peer review, discussion and learning activities

In reaching the final proposal, a peer learning process has taken place. Peer learning process included peer discussions and peer review of the experts' team with international experts as well as with similar institution in EU member country<sup>28</sup> was consulted. Peer learning included institutional setup development, functional arrangements, strategic directions, possibilities for international cooperation and networking (EU member states similar entities, EIT). With application of integrated methodological approach and with a comprehensive and participatory process the final model applicable for Kosova was developed<sup>29</sup>. After the UP and founding partner's decision on the model to be followed and implemented, ALLED2 developed a strategic framework for UPCO and worked closely with them (University of Prishtina, Municipality of Prishtina and the Kosovo Chamber of Commerce) in drafting needed documents for its institutionalization and formalization.

<sup>28.</sup> Terra Tehnopolis, Osijek, Croatia http://web.tera.hr/

<sup>29.</sup> Peer reviewer - "Terratehnopolis"

# 3. Processes and developments at global, EU and national level

#### 3.1 Trends and processes at EU and global level

The triple helix model of innovation refers to a set of interactions between academia (the university), industry and government, to foster economic and social development, as described in concepts such as the knowledge economy and knowledge society<sup>303132</sup>

According to Parkins<sup>33</sup>, the current developments in robotics and artificial intelligence call for next revolution in education system. It is estimated that 47% of jobs in US will be automated within next two decades<sup>34</sup> whereas a high susceptibility to automation for more than 50% of European jobs is reported<sup>35</sup>.). In this context, it is important to mention that EU Digital Education Action Plan presented measures for education and training institutions when facing the challenges in the digital age<sup>36</sup>. These are among the developments that put the higher education in the center of governmental agendas (local and central level) becoming lighthouses of economic growth and sustainable development in conditions of Industry 4.0<sup>37</sup>. In this context, European Commission aims to support companies in their digital transformation through Digital Innovation Hubs which offer services for them (experimenting with new digital technologies, trainings, networking opportunities etc.)<sup>38</sup>. Further, New Skills Agenda for Europe published by European Commission aims to support individuals and businesses when facing with identified skills problems<sup>39</sup>.

<sup>30. &</sup>quot;The Triple Helix Concept". Stanford University Triple Helix Research Group. 11 July 2011.

<sup>31.</sup> Jump up to:a b c Leydesdorff, Loet (2012). "The Knowledge-Based Economy and the Triple Helix Model" (PDF). University of Amsterdam, Amsterdam School of Communications Research. arXiv:1201.4553. Bibcode:2012arXiv1201.4553L.

<sup>32.</sup> Jump up to:a b c d e Galvao, Anderson; Mascarenhas, Carla; Marques, Carla; Ferreira, João; Ratten, Vanessa (2019-10-02). "Triple helix and its evolution: a systematic literature review". Journal of Science and Technology Policy Management. 10 (3): 812–833. doi:10.1108/jst-pm-10-2018-0103. ISSN 2053-4620.

<sup>33.</sup> Parkins D. (2017). Equipping people to stay ahead of technological change. The Economist.

<sup>34.</sup> Frey C.B and Osborne M.A. (2017). The future of employment: How susceptible are jobs to computerization?. <u>Technological Forecasting and Social Change</u>, 114, 254-280. <u>doi.org/10.1016/j.techfore.2016.08.019</u>.

<sup>35.</sup> Berger, T and Frey C.B (2016). Digitalization, jobs, and convergence in Europe: Strategies for closing the skills gap. Prepared for the European Commission DG Internal Market, Industry, Entrepreneurship and SMEs.

<sup>36.</sup> https://ec.europa.eu/education/education-in-the-eu/digital-education-action-plan\_en

<sup>37.</sup> OECD (2017),The Next Production Revolution: Implications for Governments and Business, OECD Publishing, Paris.http://dx.doi. org/10.1787/9789264271036-en

<sup>38.</sup> Europeann Commission (2019.). Digital Innovation Hubs: Helping companies across the economy make the most of digital opportunities. ISBN 978-92-76-08938-4 doi:10.2759/79575.

<sup>39.</sup> European Parliament (2017). New Skills Agenda for Europe: State of implementation. Policy Department A: Economy and Scientific Policy.



Although there are differences between the countries, actual trends in European Higher Education Area points that there are some shared development trends suggesting that governments should support the transformative processes in teaching and learning<sup>40</sup>. On the other hand, with the COVID-19 pandemic, the only sure thing has become uncertainty and mobilizing everyone in implementing measures to slow its spread. The world has shifted from normal *modus operandi* to a "new normal" with strict physical distancing on the one hand and intensifying efforts to support social contacts on the other. COVID-19 has accelerated the use of digital technology in all spheres of life and demonstrated the necessity of its use.

The latest trends and developments in the EU strongly highlight and supports "the role of the universities in the Europe of knowledge" and third mission of the university, triple helix, entrepreneurial University 42,43,44. Universities are becoming an integral part of the national or regional innovation systems and a critical component of the evolving "triple helix" in which universities, government, and industry change their roles through interaction to cooperation with business community helps HEIs to develop relevant curricula and teaching and learning approaches that meet the needs of both individual students and of the society. Furthermore, according to Campillo et al. 48, the most important additional actions to promote University-Business Cooperation could be: (a) Foster entrepreneurship and innovation culture in universities; (b) Foster a strong participation of university staff in innovation ecosystems and clusters; (c) Launch a call for proposals of collaborative projects for university-VET-business consortia; (d) Mobility of professors to companies to promote university - business interactions.

Despite the continuing increase in the impact of HEI on the generation of new knowledge, cooperation between HEI and the business community across Europe is still not considered satisfactory and still not much is known about a wider University-Business

<sup>40.</sup> EUA (2018). Trends 2018: Learning and teaching in the European Higher Education Area

<sup>41.</sup> EUA (2003). Response to the Communication from the Commission: The Role of the Universities in the Europe of Knowledge.

<sup>42.</sup> NIRAS Consultants, FORA, ECON Pöyry (2008). Survey of Entrepreneurship Education in Higher Education in Europe/European Commission, Directorate-General for Enterprise and Industry.

<sup>43.</sup> EC-OECD (2012). A Guiding Framework for Entrepreneurial Universities.

<sup>44.</sup> European Commission (2018). The State of the University-Business Cooperation in Europe (final Report). DG Education and Culture, Brussles.

<sup>45.</sup> Mowery, D.C. and Sampat, B.N. (2005). Universities in national innovation systems. J.Fagerberg, et al. (eds.), The Oxford Handbook of Innovation, Oxford, Oxford University Press. 209-239.

<sup>46.</sup> Etzkowitz, H. and Leydesdorff, L.A. (1997). Universities and the Global Knowledge Economy: A Triple Helix of University-Industry-Government Relations. London and New York, Pinter

<sup>47.</sup> Etzkowitz, H. & Leydesdorff, L. (2000) The dynamics of innovation: From National Systems and "Mode 2" to a Triple Helix of university-industry-government relations. Research Policy,

<sup>48.</sup> Campillo, I., Arregui-Pabollet, E., and Gómez-Prieto, J. (2017), Higher Education for Smart Specialisation: The Case of Navarre, JRC Technical Reports, Luxembourg: Publications Office of the European Union.

cooperation (UBC) within a European context, especially from the viewpoint of business<sup>49</sup>. Here, it is worthy to mention that in the US universities the specific offices responsible for industry and business linkage have been transformed into technology-transfer complexes that include offices for industrial research, marketing and monitoring technology licensing, research parks, business incubators etc.<sup>50</sup>. Among good examples in Europe elaborated in baseline study<sup>51</sup>, it has to be emphasized the University-Business Cooperation in Germany, building an education and training system (especially VET), responsive to the labor market needs. According to official German statistics, there were 806 endowed professorships (german "Stiftungsprofessuren") in 2016. Around 60 percent (488 professorships) were financed by businesses/industry and 40 percent (318 professorships) by foundations<sup>52</sup>.

A Specific example of university-industry cooperation illustrates the Baden-Württemberg Cooperative State University (German: Duale Hochschule Baden-Württemberg, DHBW), as the first higher education institution in Germany to integrate academic studies with workplace (a close integration of theory and practice). DHBW is a prestigious institution of higher education (with around 35,000 students and about 9,000 dual-partner companies) that offers dual-education bachelor and master-degree programs in cooperation with industry and business community in several areas (business administration, engineering, and social services)<sup>53</sup>. The good practices of DHBW dual education system in BSc and MSc study programs is based on the maximization of applied learning and the transfer of knowledge between the University and their partner businesses. This is considered best practice for the successful integration of universities with workplaces.

In a fast-changing world and speeding up in/of technological cycles, there is a need for learning and training in continuation, not necessarily as part of a formal education system. For most of these workers going back to schools/university to get new skills/expertise and to earn up-to-date degrees could not be possible, therefore LLL is becoming a time imperative in the rapid changing world. Furthermore, the current speed of economic transition and technological change is forcing retraining of workers, which is also putting pressure on policymakers to focus on the role of HE in LLL, and transforming colleges into a learning hub of LLL<sup>54</sup>. Therefore, the one of EU priorities continues to be LLL in reality; improvement of the quality education and training; promotion of equity, social cohesion and active citi-

<sup>49.</sup> European Commission (2018). The State of the University-Business Cooperation in Europe (final Report). DG Education and Culture, Brussels

<sup>50.</sup> Altbach, P.G., Reisberg, L., Rumbley, L.E. Trends in Global Higher Education: Tracking an Academic Revolution. UNESCO 2009 World Conference on Higher Education, 2009

<sup>51.</sup> ALLED2(2020). "Baseline assessment report under the assignment: "Expert support to the University of Prishtina ALLED2 for targeted faculties to develop a cluster/hub to serve industry and VET

<sup>52. &</sup>lt;a href="https://www.stifterverband.org/stiftungsprofessuren">https://www.stifterverband.org/stiftungsprofessuren</a>

<sup>53.</sup> Duale Hochschule Baden-Württemberg (DHBW) https://www.dhbw.de/startseite.html

<sup>54.</sup> Dunagan A. (2017). Transforming college into a hub of lifelong learning: Northeastern university level bootcamp. <a href="https://www.christenseninstitute.org/blog/transforming-college-lifelong-learning-northeastern-university-level-bootcamp/">https://www.christenseninstitute.org/blog/transforming-college-lifelong-learning-northeastern-university-level-bootcamp/</a>



zenship and enhance of creativity, innovation and entrepreneurship<sup>55</sup>. In this regard, it has to be mentioned that EIT will also extend the EIT Label to lifelong learning activities involving and reaching out to a wider target group of students, adult learners and institutions (including VET institutions) beyond the KICs.<sup>56</sup> In this context, it is important to mention that among the sectors supported by ALLED2 in Kosovo (agriculture, food processing, mechanical engineering and energy sector), energy and food are also in the list of eight current KICs.

Since ALLED2 put emphasis on the capacities and needs for future cluster/competence hub in UP relevant academic units (Faculty of Agriculture, Mechanical Engineering, Electro-Technical Engineering and Education), a model to be taken into consideration (especially due to the similarity with the cluster concept) could be one of them implemented at several German Universities (University of Hohenheim<sup>57</sup>, Münster<sup>58</sup> and Aachen<sup>59</sup>. Competence centers in these Universities offer training in some fields as well as industry related courses, some of them being the fields to be supported by ALLED2 at the academic units of the UP. The mentioned competence centers/clusters/hubs (the center have diverse names) carry out different levels of teaching/training/education: the basic training and throughout the whole training period, they offer internships, courses, industry courses, and support for preparing VET teachers and trainers (depending on the level and course duration).

According to the specific objectives of ALLED2, the proposed cluster/hub model of UP should serve as a basis for the future "Entrepreneurial University" as defined by the European Commission leading concepts and latest developments on global scale. In this regard, a good model to be followed is the Technical University of Munich (TUM) which was elected as one of the most innovative universities of 2019 in Germany and Europe<sup>60</sup>. Beside the excellence in research and teaching, TUM is promoted as an "Entrepreneurial University" as good example for strong links and cooperation with the companies that emphasize support in continuous education and LLL, in line with EU policies and best practices<sup>61</sup>. On the other hand, another good example of the organization (cluster) is Tera Technopolis- a Technology Development Centre in Osijek-Croatia<sup>62</sup>. This center was

<sup>55.</sup> Official Journal of the European Union (2018). Council Recommendation on Key Competences for Life Long Learning (2018/C 189/01).

<sup>56.</sup> Proposal for a Decision of the European Parliament and of the Council on the Strategic Innovation Agenda of the European Institute of Innovation and Technology (EIT) 2021-2027: Boosting the Innovation Talent and Capacity of Europe. COM/2019/330 final.

<sup>57.</sup> University of Hohenheim https://www.uni-hohenheim.de/en/vocational-training

<sup>58.</sup> University of Münster https://www.uni-muenster.de/ausbildung/en/allgemeines.html

<sup>59.</sup> University of Aachen https://www.rwth-aachen.de/cms/root/Die-RWTH/Arbeiten-an-der-RWTH/Berufsausbildung/~epa/Berufsausbildungszentren/lidx/1/

<sup>60.</sup> World Economic Forum https://www.weforum.org/

<sup>61.</sup> TU Munih https://www.tum.de/innovation/entrepreneurship/entrepreneurship-center/

<sup>62. &</sup>lt;a href="http://portfolio.web.tera.hr/index.php/o-nama/">http://portfolio.web.tera.hr/index.php/o-nama/</a>

established in 2002 as a result of the cooperation between the University of Osijek, City of Osijek and Osijek-Baranja County. Beside other activities of the center it is important to underline that many business enterprises are in TERA center.

Based on specific characteristics of education on the Triple Helix model (University - Industry - Government), it is considered that the establishment of competence centers/cluster/ hubs, is an imperative of time for todays and developments of the near future, in fostering entrepreneurial ecosystem in line with EU policies and best practices.

The proposed model developed through the comprehensive process, could be used as a leading example, a good practice, for university-business cooperation and cluster/hub models, contributing to economic growth, employment promotion and sustainable development in Kosovo as well. Tera Technopolis could be specifically relevant for Kosovo, taking into consideration the similar education system, inherited from the common historical past and the similarity of the education systems.

#### 3.2. State of the play in Kosovo with special attention to UP

While the harmonization of education and training with the current needs of the world of work remains one of the global challenges for sustainable social development, in Kosovo, the problem of aligning education and training with the labor market is even greater.

A need for stronger education-business cooperation in Kosovo is emphasized in the report from the assessment of the Implementation of the Small Business Act for Europe<sup>63</sup>. Attention is on emphasizing the further step in building concrete cooperation models and measures between education and training and private sector with systemic effects highlight innovation and innovation driven entrepreneurship as a driving force of Kosovo competitiveness.

Although the link between the education and labor market needs is a priority of the both sectors/departments in the MEST (VET department and HE department), there are insuffi-

<sup>63.</sup> OECD/ETF/EU/EBRD (2019), SME Policy Index: Western Balkans and Turkey 2019: Assessing the Implementation of the Small Business Act for Europe, SME Policy Index, OECD Publishing, Paris. https://doi. org/10.1787/g2g9fa9a-en.



cient coordination in their activities in this regard. The focus on the needs of the education and training with the labor market is shown also by the Kosovo Chamber of Commerce (KCC). KCC is established by the Law<sup>64</sup>, and brings together numerous associations and companies.

The LMNA (Labour Market and Skills Needs Analysis) study<sup>65</sup> points out the consequences of the skills gap for private companies in the Kosovo and puts emphasis on the importance of the policy measures to reduce them and to support the growth of the private sector. In this regard, building knowledge and skills in the private sector is considered very important because of the need for generating employment and growth. The study elaborated the importance of the continuous training for the economic growth of the companies too indicating the insufficient investment on training of employees. On the other hand, private sector recognizes the importance of the training but at the same time face the difficulties in filling vacancies with adequate competencies and skills, indicating the need for better services from the VET schools. Among other findings from this study, it is important to point out the lack of skills and low innovation activities in the private sector. This is very important issue to be considered when estimating the future job creation. As regard to the emerging skills forecast, the study listed: Engineering skills; ICT related skills; General skills (team work and communications skills, foreign language creativity and innovation) and Agriculture & food production skills. Companies reported to have difficulties in finding courses and trainers for the emerging skills suggesting to work directly with private sector while supporting all levels of education in the Kosovo.

A fragmented VET system, lack of the clear orientation toward the local labor market, overall perception for the VET in Kosovo and insufficient funding are some of the shortcomings identified through a study<sup>66</sup> which included 20 VET schools from 17 municipalities in Kosovo. Aiming to better alignment with the business community and labor market, this study points out the need for the improvement on the governance system of VET, improving quality assurance mechanisms and better promotion of the specific qualifications.

A threat identified by the LMNA study<sup>67</sup> is also the migration of the skilled workforce which is becoming a serious problem for the Kosovo. In the context of the interventions in HE sectors, it is worthy to mention that LMNA study suggests more efforts and support for

<sup>64.</sup> Assembly of the Republic of Kosovo (2004). Law No. 2004/7 on Kosovo Chamber of Commerce. Prishtina, Kosovo.

<sup>65.</sup> Krasniqi, B. (2019) IESB Institute: Labour Market and Skills Needs Analysis; Perspective for the future. Kosovo: Publication of "Aligning Education and Training with Labour Market Needs 2" project. ISBN: 978-9951-8990-0-0

<sup>66.</sup> ALLED2, EIPP, 2019, State of Art on Vocational Education and Training. Kosovo: Publication of "Aligning Education and Training with Labour Market Needs 2" project. ISBN: 978-9951-8990-1-7.

<sup>67.</sup> Krasniqi, B. (2019) IESB Institute: Labour Market and Skills Needs Analysis; Perspective for the future. Kosovo: Publication of "Aligning Education and Training with Labour Market Needs 2" project. ISBN: 978-9951-8990-0-0.

both- secondary and tertiary education aiming to align the study programs with the needs of the private sector.

Kosovo has a HE system consisting of 9 public and 22 private institutions accredited by KAA<sup>68</sup> (University of North Mitrovica<sup>69</sup>). Number of the HE institutions in Kosovo is among the highest (calculated per 1 million inhabitants)<sup>70</sup>. According to the same report (based on the data from the higher education institutions), the total number of the academic staff employed (as regular full time) in HEI in Kosovo is 3242. Among them, 1,247 (38.5%) are employed in public HEI in Kosovo whereas the number of the regular full time employed in private institutions is 1995 (61.5%). According to the data provided by MEST (Education Statistics 2018/19), the total number of the students in accredited HEI was 104,513 (65.57% in public and 34.43% in private HEI). In 2019 the total number of accredited programs by KAA (Bachelor, Master and Doctoral) was 293<sup>71</sup>. According to MEST and available data from public HEI, in the academic year 2018/19 the professor-student ratio in public HEI was 55 while in private HEI this ratio was 18. In this context, it is worthy to emphasize that the number of the part-time (no regular full time contract) staff is not included. The quality improvement (including the alignment to labor market needs) remains one the key priorities for HE in Kosovo<sup>72,73</sup>.

With more than 40.000 students, more than 1000 members of the academic staff<sup>74</sup> (out of them 866 full time employed<sup>75</sup>) and around 350 administrative staff, University of Prishtina "Hasan Prishtina" is the largest HE Institution in Kosovo (with approximately 40% of the total number of the students). UP provides 150 study programs (about half of the total number of the study programs in HEI in Kosovo) at three cycles (Bachelor, Master and Doctorate)<sup>76</sup> and has 14 academic units Faculties). Beside its main academic orientation<sup>77</sup>, UP has experience of developing study programs more oriented toward the needs of the job market. A good example (beside some other similar ones) in this regard was the Master study program "Health Management" which was developed in the framework of a project ("Master Studies Development Program" financed by Austrian Development Cooperation). This was one of the good examples of a cooperation between the academic units of the University of Prishtina in offering joint study program.

<sup>68.</sup> http://www.akreditimi-ks.org/new/index.php/sq/2015-09-16-11-39-57/2015-09-16-11-54-07

<sup>69.</sup> University of North Mitrovica is operating under specific framework due to political complexity.

<sup>70.</sup> KEEN (2019). Mid-term Evaluation: Implementation of Kosovo Education Strategic Plan 2017 - 2021.

<sup>71.</sup> http://akreditimi-ks.org/docs/Downloads/Accreditation/kshc20092019/kshc20092019.pdf

<sup>72.</sup> MEST (2016). Kosovo Education Strategic Plan 2017-2021.

<sup>73.</sup> Kosovo Government (2016). National Development Strategy 2016-2021.

<sup>74.</sup> UP (2019). Yearbook of the University of Prishtina.

<sup>75.</sup> KEEN (2019). Mid-term Evaluation: Implementation of Kosovo Education Strategic Plan 2017 - 2021.

<sup>76.</sup> UP (2019). Yearbook of the University of Prishtina.

<sup>77.</sup> MEST (2005) "Strategy for Development of Higher Education in Kosovo 2005-2015"



#### National policy framework and UP

In the context of the policy and enabling environment for better alignment of the education with the labor market needs, it is important to underline that Kosovo has improved the situation as regard to the institutional and regulatory framework whereas a need for stronger education- business cooperation is emphasized in the recently published report<sup>78</sup>. In addition, the increased focus on fostering the innovation in enterprises has underpinned the institutional framework in this regard. Among others good examples and initiatives in the Kosovo, a project initiated in 2018<sup>79</sup> is considered as an opportunity to support the education- business cooperation aiming to accommodate the needs of dual VET. Under this initiative, three priority sectors (with the highest potential for growth) were identified (ICT/technology-based firms, agro/food processing, creative and cultural industries) whereas the recognized cross-cutting areas for development were vocational education and training and research & development.

Among important interventions foreseen in the "National Development Strategy 2016-2021"80 is also "Improved correlation between skills acquired in education and labour market needs" (under the thematic pillar "Human Capital"). Reform measures related to the quality assurance in HE and profiling of HEI are foreseen under the "Economic Reform Programme 2020-2022"81 (a draft) too. Aiming at building of sustainable institutions, ADC 82 is supporting in modernizing the Higher Education and Research in the Kosovo.

Actual basic documents for the development of the education sector in Kosovo in the period 2017-2021 ("Kosovo Education Strategic Plan 2017-2021")<sup>83</sup>, listed "Vocational Education and Training and Adult Education" as one (among seven) of the thematic areas aiming to harmonize vocational education and training with labor market needs in the Kosovo and abroad. This document is also addressing the concerns about the inconsistency of the knowledge and skills acquired in Higher Education Institutions (HEI) in Kosovo with the needs of the labor market. Lack of reflection of the study programs to the labor market needs is due to the insufficient and inadequate "communication" and cooperation between the HEI and business community. The section of this document related to the

<sup>78.</sup> OECD/ETF/EU/EBRD (2019), SME Policy Index: Western Balkans and Turkey 2019: Assessing the Implementation of the Small Business Act for Europe, SME Policy Index, OECD Publishing, Paris. https://doi.org/10.1787/g2g9fa9a-en.

<sup>79.</sup> ITP Prizren (2018), The Kosovar-German Innovation and Training Park, <a href="http://itp-prizren.com/wp-content/uploads/2018/10/Gizz-Leaflet-Trifold-ITP.pdf">http://itp-prizren.com/wp-content/uploads/2018/10/Gizz-Leaflet-Trifold-ITP.pdf</a>.

<sup>80.</sup> Kosovo Government (2016). National Development Strategy 2016-2021

<sup>81.</sup> Kosovo Government (2020). Economic Reform Programme 2020-2022

<sup>82.</sup> ADC (2013). Kosovo Country Strategy 2013-2020.

<sup>83.</sup> MEST (2016). Kosovo Education Strategic Plan 2017-2021

HE, is promoting partnerships with businesses, professional programs and programs in applied sciences and provision of professional services for businesses.

The actual legal, strategic and policy framework (at national and institutional level) creates an advantageous environment for needed interventions at the UP. In this context, Law on Higher education puts emphasis on promotion of the links between HE and labor market, development of entrepreneurship as well as lifelong learning. The law on National Qualifications<sup>84</sup> has a provision which adressess the cooperation of the National Qualification Authority with the Kosovo Accreditation Agency and the Higher Education sector. It is worthy to mention that "Law for Vocational Education and Training"<sup>85</sup> has a provision addressing the "communication" with the Law on Higher Education as regard to the level V of the NQA education.

Beside concerns about many provisions in the Statute of the University of Prishtina<sup>86</sup> (mainly related to academic issues), it offers a basis for the concentrating the profile of its academic units to the training as well as on the Lifelong learning. Further, it emphasizes the possibility of the establishment of the institutes with the aim to offer services, trainings etc.

The Strategy of the University of Prishtina ("Strategy and Action Plan of the University of Prishtina 2017-2019")<sup>87</sup> lists market-driven degrees as one of the eight core strategic areas. The commitment of the University of Prishtina to "increase cooperation with the public and private sector to align degrees with demand, current skills and knowledge requirements and future needs", is a direct reflection on the needs for the alignment of the education and labor market needs. Further, fostering research excellence, and creative work as well as supporting university staff development are listed among the strategic initiatives under the mentioned Strategy.

Under the existing framework, UP put efforts to better "communication" and alignment with the needs of the job market by establishing a number of structures (either at central or at academic unit level). Institutes/ centers (within the academic units) are established in the recent years in most of the academic units at the UP. One of the aims of these Institutes is also the strengthening of the structured cooperation with companies and rel-

<sup>84.</sup> Assembly of the Republic of Kosovo. (2008, November). Law No.03/L-060 on National Qualifications. Prishtina, Kosovo: Official Gazette of the Republic of Kosovo

<sup>85.</sup> Assembly of the Republic of Kosovo. (2013, February). Law No. 04/L-138 for Vocational Education and Training. Prishtina, Kosovo: Official Gazette of the Republic of Kosovo.

<sup>86.</sup> Assembly of the Republic of Kosovo(2011). Statute of the University of Prishtina.

<sup>87.</sup> University of Prishtina ("Strategy and Action Plan of the University of Prishtina 2017-2019



evant government Institutions. *Regulation*<sup>88</sup> contains the provisions on the organs of the institutes (Council, Director, Secretary) as well as on financing, reporting, work contracting and management of the incomes (generated by the Institutes). Academic units of the University of Prishtina have established their Institutes (under the steering board regulation). In addition, the established Institutes have their own regulation (approved by the steering board). However, in targeted beneficiaries (UP units), Institutes are either not functioning or are led by the dean's office (Faculty of Mechanical Engineering). An experience in offering services and trainings is accumulated. Some of the provided services are certified by different bodies and there are examples of the income generation for the University of Prishtina. In addition, an increasing trend of the cooperation through the internships is evidenced.

"Center for excellence in teaching" at the University of Prishtina, is a good example of a center which is supporting through the training offer in the effective and innovative teaching for the Uni staff. "The career Development Center" was established with the aim of supporting in the setting and deepening the cooperation between UP and labour market.

Center for Innovation and entrepreneurship (established in 2018) is also aiming to support activities and projects in the field of innovation and innovative entrepreneurship. Another centre "Center for Energy and Sustainability" presents an example of the University of Prishtina efforts to address the important issues (at local and global level) such as the sustainability.

According to the respective Regulation<sup>89</sup>, academic units (Faculties of the University of Prishtina) establish advisory boards (based on the dean's proposal). Advisory boards are established with the aim of setting closer communication with the industry, private sector etc. Role and responsibilities of the AB include the participation in the process of the study program review, realization of the professional practice for the students, supporting the academic unit in the labor market by establishing joint working units, offer financial support for research projects of the students etc. It is important to underline that AB can suggest changes, improvements and amendment of the UP regulations as well as to propose programs related to LLL, adult and professional training.

In context of the overall situation in the academc units, it is important to underline that although the Advisory Boards (AB) are established in academic units, there is clear indication for the need that academic units put more efforts in keeping the AB functional and

<sup>88.</sup> University of Prishtina (2013).Regulation on the establishment and principles of the functioning of the Institutes at the University of Prishtina "Hasan Prishtina".

<sup>89.</sup> Regulation on the establishment and principles of the functioning of the Advisory Boards of the Academic Units within the University of Prishtina "Hasan Prishtina (2018)

to involve them more in the processes (as foreseen in the respective regulation). For the UP academic units, the functioning of the AB is vital in the efforts for coomunicating with the stakeholders and addresing the needs of the job market (which is a priority set under strategic documents in the national and Institutional level). Furthermore, it is of a key importance in building the profile of the academic units (as stated in the Statute of the UP)90.

Although there is an ongoing discussion about the VET school teachers, the contacts and cooperation with the VET schools are insufficient (or missing). The existing structures in place (Institutes, centers) can be used while shaping an applicable cluster/hub model at UP. However, it is worthy to mention that there are concerns about the regulation on the establishment and functioning of the Institutes as regard to insufficient level of the autonomy.

Although they are units of the University of Prishtina (as a legal entity), the level of the cooperation between the faculties in offering joint study programs (and other services) is not at a satisfactorily level. The evidenced cooperation in this regard was mainly project based and there is a lack of sustainable and structured cooperation. A cluster/hub is an opportunity to address the above-mentioned issues. The existing structures (Faculties, Institutes, Centers, Advisory Boards etc.) need to be better coordinated aiming to consolidate the cooperation with the business community, other HEI, Government and VET schools.

On the other hand, the status quo analysis<sup>91</sup> of the Center for Lifelong Learning, which was established several years ago (through a TEMPUS project), shows that it is not operative. This document developed under ALLED1 activities suggests the revitalization and a strategizing process for the LLL concept.

An opportunity to use the existing structures (as a coordinating body) is the revitalization of the LLL center as a hub for the activities within the UP structures (evidencing and coordinating the LLL and training activities) as well as for the better communication and coordination with the business community, VET sector, accreditation and other regulation bodies etc. Although the existing strategic framework is prioritizing the activities such as those described to the institutes and other centers, the recording and promotion of these activities is not at satisfactory level or non-existent.

However, the existing setup within UP limits the scope of an open and flexible cluster hub, which can optimize the use of existing capacities and to increase university's absorption capacities and the opportunities for building partnerships based on triple helix approach.

<sup>90.</sup> Assembly of the Republic of Kosovo(2011). Statute of the University of Prishtina.

<sup>91.</sup> ALLED (...). Guideline on University LLL for the University of Prishtina.



EU framework policy points out the importance of the changes in the world of skills and up-skilling opportunities. 92,93, therefore, EU trends are encouraging to suggest the installment of the similar flexible models at the University of Prishtina and in Kosovo which is the purpose of this type of innovative setting proposed through functional and applicable model of Cluster/Hub. According to the "Overview of the Higher Education System" 94, the participation in LLL and promotion of the adult learning is a challenging issue in the Kosovo.

<sup>92.</sup> European Commission (2020). European Skills Agenda for sustainable competitiveness, social fairness and resilience.

<sup>93.</sup> European Commission (2020) Proposal for a Council recommendation on vocational education and training (VET) for sustainable competitiveness, social fairness and resilience. COM (2020)275 final.

<sup>94.</sup> EACEA (2017). Overview of the Higher Education System" (Kosovo country fiche).

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# 4. Cluster/hub and the ways forward

Based on the findings of the baseline study<sup>95</sup>, there was an indication that in many processes in Higher Education the Kosovo (in the past years) the expertise provided was often lacking the institutional perspective. Thus, leading to the duplication or "overlapping" of the structures, which finally lead to the lack of the sustainability of the newly established structures. The current approach (while designing a model of the cluster/s), underwent through a profound process of discussions and joint planning with the academic units which are subject to ALLED2 support.

Based on the assessment of the potential of the UP existing structures and their needs (including the needs of the VET providers) as well as based on reviewed documents related to cooperation modalities in global, EU and Kosovo level the proposed concept/model is applicable at the University of Prishtina.

Final proposal on Cluster/Hub model was developed and agreed as a result of series of meetings and experts' discussions building on EU good practices. The latest development in line with smart specializations <sup>96,97</sup> and *Industry 4.0* readiness highlights strong structured cooperation between HEIs and urban agglomeration building further on smart city approach<sup>98</sup>.

There is a solid ground for University of Prishtina to take a step forward, building on the good practices from EU and beyond (explored within ALLED2 intervention), with a model of structured cooperation through implementation and institutionalization of a Cluster/hub starting with University of Pristina academic units/faculties (with potential for further enlargement), City of Prishtina, business community etc. The Cluster/Hub (`as an excellence center for development`) will serve as a structure in charge for communicating with other stakeholders (central and local government), business community, VET schools, other Higher education institutions etc.

<sup>95.</sup> ALLED2(2020). "Baseline assessment report under the assignment: "Expert support to the University of Prishtina ALLED2 for targeted faculties to develop a cluster/hub to serve industry and VET

<sup>96.</sup> Bătăgan I, Boja C. and Cristian, I. (2011) Smart Educational Systems and Education Clusters. International journal of education and information technologies, 4 (5) 452-460

<sup>97.</sup> European Commission (2014). The Role of Universities and Research Organizations as Drivers for Smart Specialization at Regional Level. DG for Research and Innovation. Brussels, European Commission. doi:10.2777/64550.

<sup>98.</sup> Klett, F., & Wang, M.(2014). Editorial: Smart cities of the future: Creating tomorrow's education toward effective skills and career development today. Knowledge Management &E-Learning, 6(4),344–355.

#### 4.1. Concept-designs of the cluster/hub for Kosovo

The agreed model (between ALLED PIU and a core working group with the participation of representatives of the UP rectorate and academic units subject to ALLED2 support) of cluster/hub is elaborated through two possible implementation modalities (internal and external model). Both are analyzed based on SWOT, flexibility and efficiency of proposed structure for future opportunities for UP, business development and VET.

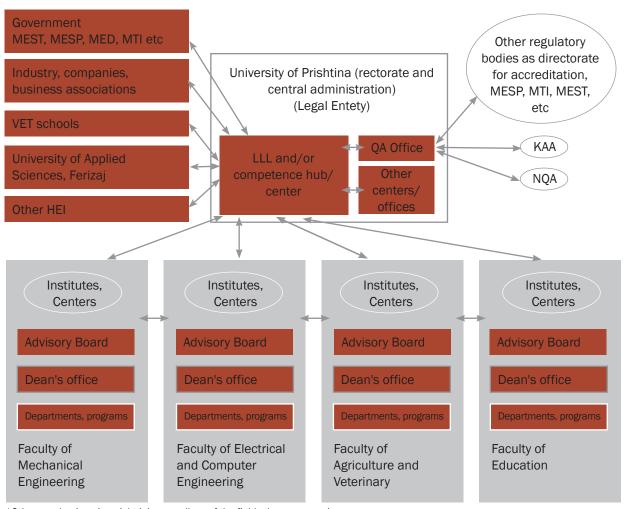
#### 4.2 Implementation modalities

**Model 1** (internal model): Under this scenario the LLLC (which can me named differently) would serve as a central element of the proposed model. In the process of the functionalization/revitalization, the setup would be in in charge (on behalf of the University) to continue toward the shaping of the cluster hub model through the activities (supported by ALLED2) for definition of: structured cooperation modalities (roles and responsibilities); operational procedures, clear definition of tasks, including operational arrangements of all relevant cluster/hub partners; cluster/ hub financial and management arrangements (including needed staff for functionalization; Development of cluster/hub work and implementation plan, planning and monitoring tools ready for piloting; cluster/hub partnership agreement (criteria, commitments for participation, partner roles and contribution, and monitoring and evaluation tools).

In order to show the real/organic connection between higher education and LLL, the representatives of the Lifelong Learning Platform<sup>99</sup>, an umbrella organization of more than 40 European organizations active in the field of education, training and youth.

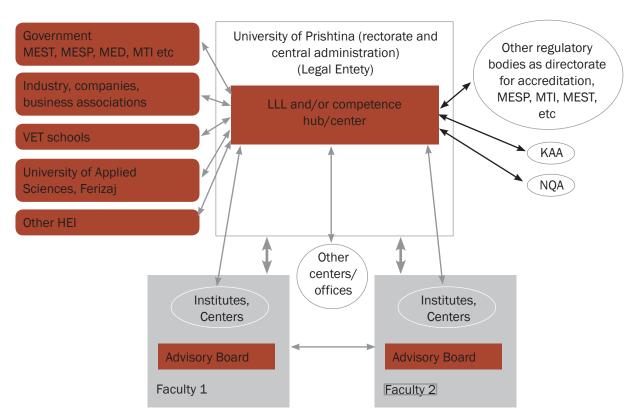
<sup>99.</sup> Lifelong Learning Platform <a href="http://lllplatform.eu/who-we-are/about-us/">http://lllplatform.eu/who-we-are/about-us/</a>

#### Diagram 1. Model 1



<sup>\*</sup>Other academic units might join regardless of the fields they are covering

Diagram 2. Model 1: Simplified scheme of the proposed model (University of Prishtina has 14 Faculties)



In the process of "shaping" LLLC as a key element of the cluster/hub, it has to be taken into account that the "Strengthening the relationship between research, teaching and innovation in a perspective of lifelong learning" and "Developing partnerships at local, regional, national and international level to provide attractive and relevant programs" are among the commitments<sup>100</sup> for the Universities while developing their role as LLL institutions. From the organizational point of view, there are examples of the HE institutions having a vice rector for teaching and continuing education<sup>101</sup>, vice-rector for study and lifelong

<sup>100.</sup> EUA (2008) European Universities' charter on lifelong learning . European University Association. Brussels.

<sup>101.</sup> https://boku.ac.at/en/universitaetsleitung/rektorat/vizerektorin-fuer-lehre-und-weiterbildung

learning<sup>102</sup>, vice rector for continuing education<sup>103</sup> etc.

This model doesn't require any major administrative change in the existing structure of the UP and its academic units. It can start to be implemented immediately with the parallel work on the LLL, but doesn't create conditions for cluster/hub flexibility and operational modality in line with the latest trends and developments as well as capacities needed. Since the aim of the cluster/hub is to serve industry and VET, it is suggested to include also the attributes of a Competence Center and Continuous Education Center. Therefore, options for naming this center are: "LLL and Competence Center": "LLL and Continuous Education Center" etc (Note: the name should be agreed when the regulation on the Center is approved).

It is clear that UP is a legal entity, however, based on the provisions of the UP statute, academic unites have competencies as regard to the managing the financial issues related to the academic units, Institutes and centers. In this regard, there are concerns related to the regulations on the Institutes (issued by the Steering Board) which are suggested to be re-considered with the aim to create incentives and better environment for the staff from the UP Faculties to be more focused in the work in the Institutes and centers.

The presented model is based on the existing structures and capacities in UP and its academic units and it is not based on triple helix approach with the third mission of the university. Here, it has to be mentioned that LLL center which is established years ago, it is not functional. In order to not overload with more structures, it is suggested that in the process of functionalization and consolidation (suggested also through the ALLED1 report on LLL). LLL center could serve as a coordinating body for the structures and activities of the actual institutes and centers placed within the Faculties (most of them non-functional). The format of the center could also serve as a structure in charge of communicating with other stakeholders (business community, VET schools, other Higher education institutions etc) as well as with the regulatory bodies such as KAA, NQA and other regulatory bodies. The center should not be a structure which centralizes the competencies which are (and can be) under the academic units. Instead, it should coordinate, facilitate and record the UP activities related to LLL and training offer. The revitalization of the LLL center is already addressed by the ALLED2 experts and core group through drafting the regulation of the LLL center and amendment of the regulation on the institutes. In the context of the University of Prishtina, a starting point for drafting the regulation of the center ("LLL and Competence Center"; "LLL and Continuous Education Center" etc.), was the "Regulation on the internal organization and systematization of the working places at the University of Prishti-

<sup>102.</sup> https://www.osu.eu/university-management/

<sup>103.</sup> https://ethz.ch/en/the-eth-zurich/organisation/vice-rectors.html

na", approved by UP in 2014. The article 16 describes the center for LLL (duties, responsibilities and structure). Together with a document developed under ALLED1("Guideline on University LLL for the University of Prishtina"), the given description is a very good starting point for the regulation on competence center/center for continuing education/ LLL center (to be drafted and submitted for approval by the UP authorities). But, having in mind that since then a lot of dynamic and rapid socio-economic and technological changes have taken place and the role of academia is of great importance to address the needs of the economy and industry, the more innovative model based on knowledge triangle is needed.

MoUs and existing cooperation with the business community is a good prerequisite for further improvements in the process of aligning with the job market. In this regard, it is worthy to mention the need for strengthening the cooperation especially with the KCC with numerous associations and companies. The commitment of the KCC to cooperate with the University of Prishtina, makes this institution one of the most important potential partner in the future cooperation in the framework of the cluster/hub/ competence center at the University of Prishtina.

Setting the structured cooperation modalities: the role and responsibilities - will be further specified in close and intensive coordination with the UP and potential partners. A consensus on specific issues related to the criteria, commitments for participation, partner roles and contribution, and monitoring and evaluation tools is needed for the proposed model to be piloted.

This model that doesn't require major administrative interventions in the existing UP structures. The central structure under this scenario (LLLC) would serve as a coordinating body for the structures and activities of the actual institutes and centers placed within the Faculties contributing to their functionalization/revitalization too. On the other hand, one of the main concerns remains the risk for the lack of flexibility in addressing the issues as well as the risk for experiencing the fate of many structures at UP which are established and not functionalized.

In general terms it doesn`t accomplish the full scope and objectives of the modern cluster/hub in line with new trends and developments in HE. On the other hand, it provides limited level of flexibility and efficiency towards real mission of a cluster/hub which is to broaden future opportunities for UP such as increased project capacity of UP, keeps it primarily academic without any corporate culture that would serve to industry and VET.

In terms of flexibility, it is limited with rules for budget institutions (such as limits in spending and employment) and in optimizing and multiplying the chances of UP for applying in different projects and sources. It also has a weak perception by international partners

and UP academic units, by business community and by VET institutions.

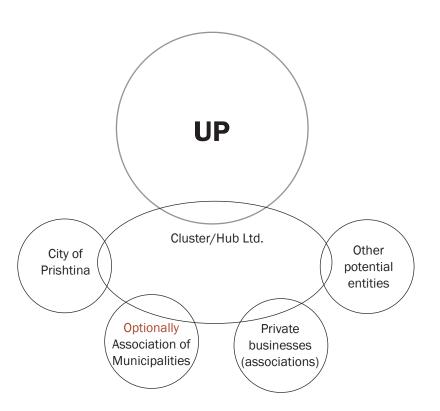
Model 2 (external model): The establishment of the cluster/hub under this model (external model) can be done in accordance to the article 13 of the Statute of the University of Prishtina. This would be a step forward in strengthening the cooperation with other Higher Education Institutions within Kosovo and internationally in consolidating the cooperation with the business community. This setting is based in putting triple helix approach into practice through structured partnership of the potential co-founders.

The following model is in line with international good practices for cluster/hubs and excellence centers, with defined roles, responsibilities, operational procedures etc., The creation of linkages between academic world, public sector and industry/business community is a prerequisite for successful provision of qualitative education and training including VET (Triple Helix Principle). It is worthy to mention that the latest developments at global levels shows the crucial role of cities in building/supporting these type of innovative structures and Universities and Cities goes hand in hand in building smart cities and smart societies. In this respect the role of the capital City would be very important, thus putting Kosova and on EU map of frontrunners for smart development. Cooperation with business community and involvement of the Kosovo Chamber of Commerce as one of the key co-founders is encouraged too.



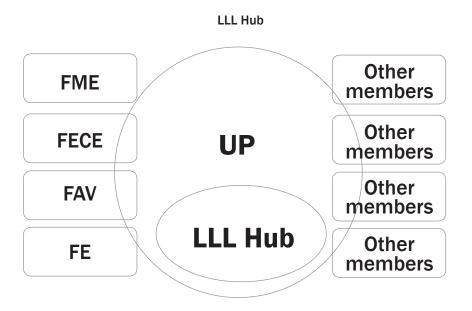
### Diagram 3: Model 2. Central element (entity/structure/ organization/hub) of the cluster/ hub more independent from UP

Alliance driven partnership for enterprising Kosova UPCO



### UP ClusterHub. Ltd - UPCO:

- Carefully crafted statute
- Not for profite clause
- Carefully crafted mission and vision
- Membership in the founding act
- Seats in Assembly
- Seats in Man.
   Board



**LLL Hub** 

# FECE UP Other members Other members Other members Other members Other members Other members UP Other members Other members

### Benefits of being a separate entity:

- Increased project capacity of UP
- Primarely corporate and not only academic culture
- Flexibility
- Not limited with rules for budget institutions (such as limits in spending and employment)
- Better perception by clients and UP members

### Benefits for LLL Hub

- Freedom to operate
- Independence from all deans
- No limits for budgetary institutions



Having in mind defined modalities of IPA III (shifting from dedicated national financial envelope to regional envelope available for all countries based on project maturities and competitiveness – first come first serve principle) the proposed innovative and efficient structure is a necessity to ensure for Kosova equal positioning with other countries in region.

The implementation model for a more independent Cluster Hub (with proposed name UPCO)<sup>104</sup> from the UP may have major advantages in terms of more autonomous management and increased opportunities for income generating activities as well as increased competitiveness in fund raising and service provision.

This model is similar to other advanced EU member countries practices throughout their universities, too. With this institution UP hand in hand with city of Prishtina as well as with most representative partners from the private sector will increase opportunities for competitiveness and equal positioning of Kosova (Prishtina) in SEE, EU and beyond.

Flexibility and efficiency of proposed structure for future opportunities will open new opportunities to UP and its partners for better absorption of EU funds and development programs contributing to knowledge based economic and societal development of Kosova (such as IPA III, COSME, Erasmus+, EIT RIS, NATURA, Green Fund and future Regional Development Fund etc.).

As elaborated, this model has many advantages and would ensure the complementarity with the approach followed in many advanced EU member countries. Application of this model presents innovation in Kosova and would be the new experience for UP, upgrade of all good points identified in the Model1, too<sup>105</sup>.

The advantages of this model are the high level of flexibility and efficiency towards real mission of a cluster/hub to broaden future opportunities for UP, such as increased project capacity of UP, primarily entrepreneurial culture that would serve to research, academic purposes and to alignment with industry and VET. The model supports creation of the enabling environment for the implementation of the third mission of the universities- entrepreneurial universities. In terms of flexibility, it is not limited with rigid rules for budget institutions (such as limits in spending and employment) and supports the increase of chances to UP for applying in different projects and sources.

<sup>104.</sup> UPCO- abbreviation for University of Prishtina for competitiveness/competencies/cooperation

<sup>105.</sup> Including promotion of LLL.

It also has a strong positive perception by international partners as a comparable model to advanced practices throughout EHEA and other international practices, too. Therefore, UP hand in hand with governmental structures (capital city) and most representative partners from the private sector will enhance the opportunities for competitiveness and cooperation with VET institutions, too.

Even though it is challenging, decision was taken for innovative enabling framework with three co-funding partners, broadening the perspective to contribute smart growth and sustainable development in line with news trends at EU and global level.

In close cooperation with ALLED2 and UP and co-founding partners, setting the cooperation links with similar entities from EU member state would further ensure full functionality of Cluster Hub.

Based on the advantages listed above, UP management showed the commitment to establish a cluster hub following the external model.

### 4.3. Legal framework

The legal and policy framework (at national and institutional level) provides an enabling environment for implementing the proposed model. Law on Higher education 106 and its provisions promote the links between HE and labor market, development of entrepreneurship and promotion of lifelong learning. According to the article 25.1. of the Law on Higher Education in the Republic of Kosovo (article 25.1.) Higher Education Provider can use "its education and research activities commercially in favor of the provider".

It is pointed out also that the legal provisions (article 8. 3.8) related to the rights of the Public Provider of higher education to "establish commercial enterprises for educational and research purposes". This is also "reflected" in the Statute of the University of Prishtina (article 13)<sup>107</sup> which is one of the most relevant statutory provisions as a legal basis for establishing such mechanisms (commercial enterprises).

Further, article 13.1. defines that "University is a legal person and has a full legal sub-

<sup>106.</sup> Assembly of the Republic of Kosovo. (2011, August). Law No. 04/L□037 on Higher Education in the Republic of Kosovo. Prishtina, Kosovo: Official Gazette of the Republic of Kosovo.

<sup>107.</sup> Kuvendi i Republikës së Kosovës (2011). Statuti i Universitetit të Prishtinës.

jectivity with all rights and obligations in relation to the matters dealt under applicable laws including": "Establishing commercial and noncommercial enterprises, institutes for educational purposes, scientific research, professional and artistic services" (article 13.1.14.).

Based on these provisions, commercial enterprises can be established for the following purposes:

- 1. Educational:
- 2. Scientific research:
- 3. Professional and artistic services

One of the responsibilites of the Governing Council (Steering Board) which is related to the abovementioned issues is listed under the article 22 (22.1.3): "To develop strategies for adequate provision of funds from public and private sources, taking into consideration the facilitation when establishing subsidiary companies and institutes for the use of the results of the academic work of the University".

Taking into consideration the analysis of the strategic and legal framework (Law on Higher Education and Statute of the University of Prishtina), as well as the proposed model of the UPCO center, following conclusions can be drawn:

- University of Prishtina "Hasan Prishtina" can establish commercial and noncommercial enterprises, institutes for educational purposes, scientific research, professional and artistic services;
- 2. Governing Council (Steering Board) of the University of Prishtina is competent body for establishing such mechanisms;
- 3. UPCO center should be established by the decision of the UP Steering Board;
- 4. The legal basis for establishing UPCO was:
  - Law on Higher Education in the Republic of Kosovo (Nr. 04/L-037) in articles 10; 13.2 and 13.2.2; 18; 20.1.3 and 25);
  - Statute of the University of Prishtina "Hasan Prishtina" in articles 17. 3; 22.1.3; 22.1.6 and 13.1.14);
- 5. Aiming the functionalisation of the center UPCO, a specific organisational code can be created for the center's objectives to support the UP.

The establishment of the center "UPCO" is based on the application of the triple helix in practice through structured partnership of the co-founders and in accordance with the primary and secondary legislation (as presented above). The model is also based on the international good practices for clusters, with the defined roles, responsibilities, operation-

This should be seen as a possibility for UP to establishing an institution/structure/center in partnership with other organizations/institutions. This creates major advantages in terms of more autonomous management and increased opportunities for income generating activities as well as increased competitiveness in fund raising and service provision.

### 4.4. Institutionalization and formalization

The institutionalization process started in 2020 with signing of the MoU between UP Rector, President of the Kosovo Chamber of Commerce and City of Prishtina Mayor as an expression of the readiness to be co-founders of the future institution

Based on the UP (and other founding partner's) decision for the model to be implemented, ALLED2 in close cooperation with founding partners drafted a strategic framework and other needed documents toward institutionalization and formalization of UPCO (such as Strategic plan, the Statute and the establishment act).

Other key steps in this process were:

- Founding partners signed the founding agreement (finalized in January 2022);
- Interim manager was hired;
- Location of the UPCO was specified (University of Prishtina Faculty of Education).



## 5. Conclusions and recommendations

Even though, both models can be considered for the implementation, the most important is to be chosen the model which better serves to UP and co-founding partners, industry and VET. The main difference between them is the operational concept, autonomy and flexibility without excluding the position of the LLLC (or other name of the center) within UP (model 1) and the position of the UPCO center as more autonomous approach and better serving to goals of UP (model 2). Most of differences are also related to the different organizational setup of the partnerships building and cooperation modalities.

It is obvious that model 2 (which ensures more independent functionality) has major advantages in terms of more autonomous management and increased opportunities for income generating activities as well as increased competitiveness in fund raising and service provision.

Proposed model is a result of structured processes within the ALLED2 project and the beneficiary institutions. Final proposal on Cluster/Hub model was developed and agreed as a result of series of meetings and experts' discussions building on EU good practices. The latest development in line with smart specializations and Industry 4.0 readiness highlights strong structured cooperation between HEIs and urban agglomeration building further on smart city approach. The advantages of this model are the high level of flexibility and efficiency, primarily entrepreneurial culture that would serve to research, academic purposes and to alignment with industry and VET. The model supports creation of the enabling environment for the implementation of the third mission of the universities- entrepreneurial universities, and supports the increase of chances to UP for applying in different projects and sources. Further, it positions UP in the international arena as a comparable model to advanced practices throughout EHEA and other international practices, where UP hand in hand with governmental structures (capital city) and most representative partners from the private sector will enhance the opportunities for competitiveness and for aligning with economy/industry and with VET providers.

The decision for this innovative enabling framework with three co-founding partners to establish UPCO, enhances wider perspective to contribute to smart growth and sustainable development in line with new trends at EU and global level.

Establishing the proposed model, UP as the oldest and biggest higher education insti-

tution in Kosova would greatly contribute to the overall development with an innovative solution. Cluster Hub UPCO will open new opportunities to UP and its partners for better absorption of EU funds and development programs contributing to knowledge based economic and societal development of Kosova (such as IPA III, COSME, Erasmus+, EIT RIS, NATURA, Green Fund and future Regional Development Fund etc.). Cluster/Hub will serve as a competence center and accelerator for the *Industry 4.0* and VET, by enhancing systematic cooperation with enterprises, exploring potential for excellence in teaching/learning, innovative entrepreneurship technology transfer on local and national level, following EU trends and positioning Kosovo and its capital Prishtina on global map. Further, cluster hub will explore the potential for establishing future partnerships with universities at the international arena, increasing quality of teaching programs and processes in VET to be aligned with labor market needs, as well as technology update on local, national and global trends.

For the University of Prishtina, cluster/hub is an opportunity to also address the need for better coordination of the existing structures within the UP (Faculties, Institutes, Centers, Advisory Boards etc.) aiming to consolidate the cooperation with the business community, other HEI, Government and VET schools. Actual structures in place (Institutes, centers) can be used while shaping cluster/hub model at UP. Further, the institutionalization of the cluster/hub model will be the right step in setting and strengthening the cooperation with other Higher Education Institutions in the Kosovo.

A cluster/hub is also an opportunity for consolidating the cooperation of the UP and HE in general with the business community, Government (central and local) and VET schools. The creation of linkages between academic world, public sector and industry/business community is a prerequisite for successful provision of qualitative education and training including VET (Triple helix). The proposed cluster/hub model of UP should serve a basis for future "Entrepreneurial University".

Specifically, the cluster/ hub model will address the needs identified through the assessments which detected main skill and economic sectors in the Kosovo. In addition, it would be the way of addressing also some of the concerns related to the corporative culture among which is also the lack of the generation of the own funds at the public HEI.

The implementation of the proposed model would be a step in the right direction when the UP and HE sector is facing with the situation when the number of the students interested in the existing study programs is decreasing therefore indicating the need for more focus in study programs which are more responsive to the needs of the labor market as well as Vocational Education and Training in HE.

UP cluster/hub is expected to serve as a leading consortium of university academic

staff, VET school teachers and public stakeholders, devoted to excellent vocationally research-based education, entrepreneurship and industrial collaboration. Existing examples of cooperation with the business community is a good prerequisite for further improvements in the process of aligning with the labour market.

Based on the decision of the UP (management and governing bodies) on the model to be implemented, the respective (specific) implementation modalities (indicated in the respective section) have to be taken into consideration. In addition, the following steps are recommended:

- The role of the universities in the Europe of knowledge and its third mission known as Entrepreneurial university to be performed in structured cooperation with City of Prishtina and Kosova Chamber of Commerce to increase opportunities for competitiveness and equal positioning of Kosova (Prishtina) in SEE, EU and beyond as well as putting Kosova's education and its capital Prishtina on EU map of frontrunners for smart development. Under the non-for-profit clause, in given regulatory framework to ensure innovative, sustainable and efficient governance model where the roles and responsibilities of the co-founders have to be described and regulated in details and UPCO should ensure significant position of the UP.
- UP authorities (including the interim manager) and co-founders in close coordination with ALLED2 should undertake all necessary administrative actions for formalizing and registering the entity (UPCO) and recruiting initial staff as a prerequisite for ensuring functionalization of the center (cluster).
- The activities of UPCO should be driven by innovative practices, promotion of the
  joint initiatives, supporting the access to training and qualifications, improving the
  quality in VET, established structured cooperation with businesses, promoting entrepreneurship, learning organization based on LLL principles.
- Since UP will provide the premises for the center whereas the use of the existing UP capacities (especially institutes and centers) has to be ensured too in close cooperation with co-founding partners City of Prishtina and KCC. The proposed governance model provisions should be flexible the activities as well as to ensure the flexibility in involving potential new partners in the future with broadening the scope of UPCO. In other words, UPCO should be open for other partners too (clustering). Based on this clear strategy and action plan should be developed.
- Cluster/hub should undertake the concrete actions to facilitate/coordinate the communication and cooperation of the UP with business community, VET schools,

other Higher Education Institutions, Government etc. In this context, the mobility of professors to companies as well as the participation of the University staff in innovation cluster and ecosystem is needed in order to promote university business interactions. Aiming to set and support closer cooperation with business community it is recommended that the UPCO undertake actions that promote entrepreneurship and innovation. In line with the national strategies as well as the Strategy of the University of Prishtina, the cluster/hub should also foster research excellence and university staff development.

The cluster/hub should promote the learning culture horizontally and vertically. In
this context, it is further recommended that center builds concrete cooperation
models which support both upper secondary (VET) and tertiary education in their
aim to align the education and training with the needs of the public and private sector (including the projects for which a good ground was developed by the ALLED2
activities).

Work on promotion of the UPCO at national and international level should be based on the existing partnerships established between the UPCO co-founders and other Institutions in Kosovo, region and beyond. In addition, the cooperation in the framework of the various EU and international programs should serve as starting points to identify the potential strategic partners. ALLED2 through its experts and collaborators will support in building structured cooperation links with similar entities from EU member states and participation in the networks (such as EEN -Enterprise Europe Network). The existing partnerships of the co-founders are very important and should be included and innovative structure should open new opportunities to UP and co-founding partners for better absorption of EU funds and development programs contributing to knowledge based economic and societal development of Kosova (such as IPA III, COSME, Erasmus+, EIT RIS, NATURA, Green Fund and future Regional Development Fund etc.). In this regard, a special attention should be put on the opportunities to participate on Horizon Europe Programme as made possible through the Association Agreement between Kosovo and EU (signed during 2021). In this context, a formalized and functioning UPCO is expected to better utilize the created opportunities under Horizon Europe. In addition, UPCO is an opportunity to more successfully explore and utilize the wider range of opportunities within the programs (such as ERAS-MUS+) with the focus on actions of various sizes and scopes that enable participating organizations to strengthen their capacities, to produce innovative deliverables etc.

The work on "shaping" the UPCO under the COVID-19 circumstances, was an opportunity to reflect on the raised issues therefore, UPCO is expected to contribute in post-Covid recovery period. From this point of view, UPCO expected to serve as a model also for other Institutions in Kosovo.



The agreed model will be piloted for at list six months and the lessons learned should be used for further improvement of the cluster/hub model in order to better serve industry and VET under the framework for aligning training programs with labor market and smart specialization approaches. In this framework the continuous education and LLL culture should be supported too.

In achieving the abovementioned goals co-founders are recommended to appoint their representatives in the future UPCO-s steering board and possible advisory/working groups.

It is obvious that the process is still vulnerable therefore in the initial phase ALLED2 will support UPCO establishment and capacity building as well as strategic and operational documents with related supportive acts and initiation of the international strategic partnerships. In this regard, it is of a key importance that founding partners remain committed and supportive to the capacities and resources needed.

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### 7. Annex

### List of the interviewees:

- 1. Merita Berisha- UP Rectorate
- 2. Besnik Loxha- UP (Academic Development Office- ADO and QA Office)
- 3. Shpetim Lajqi FME
- 4. Mentor Thagi- FAV
- 5. Afrim Hamidi- FAV
- 6. Majlinda Gjelaj- FE
- 7. Qamil Kabashi-FECE
- 8. Afrim Syla- AB FME
- 9. Gezime Rexhepi- AB FE
- 10. Valbona Fetiu-MEST, VET
- 11. Bekim Samadraxha-MEST
- 12. Agron Bajraktari Rector, UASF
- 13. Agim Emurli HERAS
- 14. Besim Mustafa- Kosova Chamber of Commerce
- 15. Edmond Hajrizi- UBT
- 16. Adnan Ahmeti- Kosovo Government (Office for Strategic Planning)

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