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EACEA (Education, Audiovisual and Culture Executive Agency of the European Commission) selected **IF4TM** project in **TOP20 CBHE** (Capacity Building in Higher Education) projects with significant structural impacts on higher education institutions as well as national education policies



IF4TM

INSTITUTIONAL FRAMEWORK FOR DEVELOPMENT OF THE THIRD MISSION OF UNIVERSITIES IN SERBIA, 2015 - 2019

561655-EPP-1-2015-1-RS-EPPKA2-CBHE-SP | Coordinator: Prof. Dr. Vesna Mandic, University of Kragujevac, Jovana Cvijica bb, 34000 Kragujevac, Serbia, mandic@kg.ac.rs

IF4TM WIDER OBJECTIVE

To contribute to the establishment of institutional framework for the third mission (TM) of the universities in Serbia, encompassing three dimensions:

- 1 Technology transfer and innovation
- 2 Continuing education
- 3 Social engagement



IF4TM SPECIFIC OBJECTIVES

- To define legal and policy framework supporting the development of universities' third mission in Serbia
- To adjust existing and define new legal framework at seven Serbian Higher Education Institutions
- To develop technology transfer and innovation dimension
- To develop continuing education dimension for capacity building of university staff, researchers and students
- To develop universities' social engagement dimension unlocking and mobilizing university resources and capacities to society and enterprises needs
- To establish five Creativity centres in Serbia as spaces facilitating creativity in teaching and learning, ideas development and proving concept

IF4TM CONSORTIUM

Serbian partners

Higher Education Institutions

- University of Kragujevac (UKG)
- University of Belgrade (UBG)
- University of Novi Sad (UNS)
- University of Nis (UNI)
- State University of Novi Pazar (SUNP)
- Belgrade Metropolitan University (BMU)

Governmental bodies

- Ministry of Education, Science and Technological Development of the Republic of Serbia (MEST)
- Intellectual Property Office of the Republic of Serbia (IPOS)

Institutions supporting innovation and entrepreneurship

- Business innovation centre Kragujevac (BICKG)
- Business Technology Incubator of Technical Faculties Belgrade (BITF)
- Business Incubator Novi Sad (BINS)
- Intranea solutions d.o.o (INT)

EU partners

- University of Brighton, United Kingdom (UoB)
- Danube University Krems, Austria (DUK)
- University of Lisbon, Portugal (IST)
- University of Bari Aldo Moro, Italy (UNIBA)
- University of Maribor, Slovenia (UM)

IF4TM STRUCTURE AND INTERVENTION

Policy debate and benchmarking analysis

- Analysis of EU policies and legal frameworks for the third mission
- Analysis of strategies and laws in the Republic of Serbia
- Analysis of regulatory documents and existing structures at 7 Serbian HEIs
- Policy seminar and debate on the third mission of universities
- Benchmarking analysis and recommendations
- Consensus meetings

Development of legal framework

- Development of new policies and law amendments
- Development of new and modification of existing universities' regulatory documents
- Operational manual for implementation of the third mission
- Defining institutional policies to promote university third mission dimensions and activities
- Defining and monitoring metrics for third mission activities

1st TM Dimension: Technology transfer and innovation (TTI)

- Setting-up seven INNO platforms for innovation management
- Seven workshops "Methodology guide for innovation"
- National competitions for best ideas of students
- Improving Technology Readiness Level (TRL) through Proof-of-Concept programme (PoC)
- IP valuation and development of commercialization strategy
- Good practices on TTI activities at Serbian universities

2nd TM Dimension: Continuing education (CE)

- Integrative university approach in continuing education
- Capacity building program for university staff
- Trainings on IP management
- Trainings on market strategy
- Start-up trainings
- Including entrepreneurship and IP management topics in study programs

3rd TM dimension: Social engagement (SE)

- Universities' social engagement plans
- Six Creativity Centers in Serbia
- Workshops on entrepreneurship and creative thinking
- Non-discipline students' volunteering
- Mobilizing university resources to society needs
- Open-innovation campaigns

IF4TM RESULTS AND IMPACT

TM1. Benchmarking analysis and policy debate defined gaps and main goals for further development of the third mission of the universities in Serbia (TM), with the participation of 10 EU and 7 Serbian HEIs, relevant ministries and other stakeholders from academic and business sectors (70 experts, 30 institutions)

TM2. Developed/drafted/adopted new policies and laws, with provisions relevant for TM implementation at Serbian HEIs

- The new Law on Higher Education (adopted in September 2017)
- Strategy on Scientific and Technological Development of the Republic of Serbia for the period 2016 - 2020 - Research for Innovations (adopted in February 2016)
- Action Plan for the Strategy for Scientific and Technological Development of the Republic of Serbia for the period 2016-2020 (adopted in July 2018)
- The new Law on Fund for Science (adopted in December 2018)
- The new Smart Specialization Strategy (drafted in December 2018)
- The new Law on Scientific-Research Activity (drafted in November 2018)

TM3. University regulatory documents developed/adopted and aligned with the law framework, at 7 HEIs in Serbia

- New Statutes of 7 participating HEIs adopted in line with new laws
- UKG - New Technology Transfer Center established
- UKG - New Rulebook on the management of intellectual property adopted
- UKG - New Rulebook on the procedure for applying for reviewers and procedures for reviewing the application for IP disclosure adopted
- UNS - New Rulebook for social engagement and volunteering drafted
- UNS - New Rulebook on life long learning drafted
- UNS - New Rulebook on intellectual property drafted
- UBG - New By-Law on minimal conditions for obtaining an academic position
- UNI - New Bylaw on the valuation of students' extra-curricular activities adopted
- TCAS - New Bylaw on IP management drafted
- TCAS - New Bylaw on the organization of teaching within continuing education drafted
- TCAS - New Bylaw on social engagement drafted

TM4. Operational Manual for Implementation of the Third Mission with recommendations to faculties/institutes/high schools developed and published. The manual includes the set of recommendations and guidelines to Serbian HEIs on how to establish the legal framework and procedures for successful implementation of the third mission. This manual was developed with the aim to share the findings of the comprehensive work and analysis conducted so far and will be updated by the end of the project with new results and findings in order to provide the most efficient set of guidelines to be used by the universities outside the IF4TM Consortium.

TT1. Innovation management at participating HEIs in Serbia improved and supported by 7 collaborative software INNO platforms. The INNO Platform represents the central spot for submitting and developing ideas. The platform was designed to follow every step of the Competition for best student ideas, in compliance with the Methodology for the Competition for best student ideas.

- UKG - www.inno-student.kg.ac.rs
- UBG - www.inno-student.bg.ac.rs
- UNS - www.inno-student.uns.ac.rs
- UNI - www.inno-student.ni.ac.rs
- SUNP - www.inno-student.np.ac.rs
- BMU - www.inno-student.metropolitan.ac.rs
- TCAS - www.inno-student.vts-zr.edu.rs

TT12. Competition for best student ideas

- Competition in 2017, 97 ideas/teams, 350 students participated, 6 local competitions held, total 30 teams in 6 local finals, 12 teams at the National final competition, Study visit to UM in October 2017.
- Competition in 2018, 54 ideas/teams, 152 students participated, 6 local competitions held, total 21 teams in 6 local finals, 11 teams at the National final competition, Study visits to DUK in August 2018.

TT13. Proof of Concept Program developed and piloted in Serbia with 10 selected research teams and their PoC projects, leading to improved TRL (Technology Readiness Level), with the support of the Ministry (MEST) and Innovation Fund.

The Operational Manual for Proof-of-Concept Programme provides the set of recommendations and guidelines for researchers on how to validate their laboratory prototypes and make them more marketable. Support activities defined and provided under PoC program are:

- Market research
- Business model development
- Commercialization strategy
- IP evaluation and protection
- Technology/concept validation
- Development of prototype
- Technical feasibility study
- Fundraising or crowd-funding support.



CE1. Guidelines for the establishment of an integrative approach in continuing education at university level elaborated and implemented. This strategic document provides the guidelines and set of recommended measures to develop institutionally and systematically CE dimension of the third mission. The document defines the concept of an integrative approach to continuing education, stating the benefits for both providers and users of this kind of education. It covers the elements such as:

- Development of university legal framework
- Mapping the current offer of CE activities
- University CE units
- Types and scope of CE activities
- External accreditation
- Quality control and assessment of CE activities
- Incentive systems for providers and users
- Promotion of CE activities

CE2. University academic and administrative staff, researchers and students trained for the third mission implementation

- 4 capacity building trainings, 39 participants
- 7 two-day workshops "Methodology guide for innovation", 467 participants
- 4 trainings for INNO platform administrators, 21 participants
- On-line training for 610 INNO platform users
- 56 start-up trainings at 7 HEIs and 3 BIs, 656 participants
- 5 trainings on IP management, 116 participants
- 11 trainings on market strategy, 154 participants
- 4 workshops on creative thinking and entrepreneurship, 61 participants

SE1. Universities' social engagement plans developed and implemented at 7 HEIs in Serbia, defining different activities of engaged research and education, but particularly those which are connected directly to society, such as public access lectures, concerts and other events, initiating public debates on important social issues, voluntary work and consultancy by university staff and/or students etc.

SE2. 6 Creativity center established, equipped and operational at participating HEIs in Serbia (UKG, UBG, UNS, UNI, SUNP and BMU). The objectives of Serbian Creativity Centres are to:

- Enable innovation and idea generation,
- Encourage social and entrepreneurial engagement
- Enhance knowledge and practice in the creative process

The wide scope of creativity, creative practice and third mission activities, means that Creativity Centres undertake a wide set of activities:

- Creative teaching
- Creative workshops
- Idea generation
- Group and meetings
- Creative support
- Innovation activities
- Entrepreneur and networking activities
- Staff training

SE3. Realized volunteering activities of students and academic staff at six participating HEIs from Serbia (UKG, UNS, UNI, UBG, SUNP, TCAS) are presented in details in D5.4.1 report, including in total 332 students volunteers and 76 volunteers from academic staff. D5.4 starts with a short preview of volunteering, its types, duration periods and benefits, and recommends the set of motivational activities to promote volunteering among students. It also provides the recommendations of procedures for application, selection and realization of volunteering activities at the university level.

SE4. Mapping and unlocking of HEIs resources to be engaged in cooperation with enterprises and social partners completed at five HEIs in Serbia (UBG - 144, UNI - 38, UKG - 29, UNS - 23, SUNP - 7). University units (R&D centers, labs, offices) and research teams are presented in online catalogue, and publicly available information is structured in the following categories:

- Applied research results
- Developed technologies
- Software
- Patents
- Specific methodologies
- Trainings
- Commercial services
- Laboratory tests

SE5. Open Innovation campaigns launched based on developed Methodology for Open Innovations. OI methodology is designed for companies located in Serbia that are ready to open the part of their challenges and seek for solutions outside, particularly in scientific and research community [researchers, students, etc.]. Besides companies, the OI campaign is also designed for members of the academic sector, particularly researchers and students of seven Serbian HEIs participating in the project. The concept of cooperation with industry with the aim of solving technical, technological, organizational and other challenges shifts the traditional research into the direction of practical application, encouraging at the same time innovativeness and creativity among researchers.

