

HERE ANNUAL CONFERENCE, ROME 2018

Capacity building for higher education reform: The impact of collaborative international projects



IF4TM

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

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IF4TM WIDER OBJECTIVE

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

- Technology transfer and innovation Continuing education
- 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

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)
- Technical College of Applied Sciences in Zrenjanin (TCAS)

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 Maribor, Slovenia (UM)

University of Bari Aldo Moro, Italy (UNIBA)

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
- 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
- Defining and monitoring metrics for third mission activities

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

2nd TM Dimension: Continuing education (CE)

3rd TM dimension: Social engagement (SE)

- niversities' social engagement plans ix Creativity Centers in Serbia /orkshops on entrepreneurship and creative thinking

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 Technology 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 the Republic of Strategy for Scientific and Technological Development of the Republic of Strategy for Scientific and Technological Development of the Republic of Serbia for the Republic of Serbia for the Polymer Strategy for Scientific and Technological Development of the Republic of Serbia for the Polymer Strategy for Scientific and Technology for Scientifi
- 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

- 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



TTI1. 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
- . BMU www.inno-student.metropolitan.ac.rs
- UNS www.inno-student.uns.ac.rs
 UNI www.inno-student.ni.ac.rs

- 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

. TCAS - www.inno-student.vts-zr.edu.rs

Fundraising or crowd-funding support.

teams in 6 local finals, 11 teams at the National final competition, Study visits to DUK in August 2018. TTI3. 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:
 - Technology/concept validation
- · Development of prototype Business model development Commercialization strategy



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

- Development of university legal framework
 Mapping the current offer of CE activities
 CE activities
 External accreditation
 Quality control and assessment of CE activities
- · University CE units
- Types and scope of CE activities

. Incentive systems for providers and users

- CE2. University academic and administrative staff, researchers and students trained for the third
- 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 i 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 teachingCreative workshops Creative support
 Innovation activities · Entrepreneur and networking activities · Idea generation · 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: Specific methodologiesTrainingsCommercial services Applied research results
- · Laboratory tests · Patents 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









