





Consolidated report with recommendations drawn from the presentations and discussions at Policy Seminar

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Abstract	Consolidated report with recommendations drawn from the presentations and discussions at Policy Seminar held in Belgrade on 18 th and 19 th April, 2016
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LIST OF ABBREVIATIONS

ECTS European Credit Transfer and Accumulation System

EU European Union

HEI Higher education institution

IPA Instrument for Pre-accession Assistance

IPR Intellectual property office

NGO Non-governmental organization

R&D Research and development

SME Small and medium enterprises

TM Third mission WG Work Group





EXECUTIVE SUMMARY

The objective of this document is to present the conclusions and recommendations generated during the policy seminar held in Belgrade, on 18 and 19 April, 2016.

This report is elaborated based on recommendations given within the presentations of project reports D1.1, D1.3 and D1.4 and presented experiences of EU project partners. It also relies on fruitful discussions during the second day of the seminar organized in two round tables. As such, the report provides a preview of consolidated suggestions and recommendations related to the development of the third mission at Serbian universities.

This report will be also the base for further analysis and prioritization of recommendations that will be considered within other activities related to the development of third mission within the IF4TM project, particularly during the elaboration of D1.5 Benchmarking analysis and consensus meetings that will be organized at Serbian universities in the following period.





1. Recommendations from EU project partners' experience

1.1 International perspectives and concepts of universities third mission (presentation by Attila Pausits from Danube University Krems)

Recommendations: Institutions and their leaders

- commitment into mission statements, strategic documents
- supporting and celebrating the "activity"
- engaging with local authorities and the other high-level institutions of society
- achieving academic recognition meritorious involvement by academic staff as justification for promotion
- · fostering a trusting ambiance

Recommendations: Academic staff

- realizing their own personal share of the Third Mission social contract with society
- behaving entrepreneurially both academically and through external engagement
- engaging in trusting relationships and activities with non-academic people, including administration, and people outside the university

Recommendations: Business sector and others in public role

- trusting, engaging and working with university people, looking for inputs of innovation, knowledge and skills
- making allowances for the particular culture within universities, which typically differs markedly from that found in the commercial world, but is not 'worse'
- adopting a medium-term horizon for the timing of projects

Recommendations: Public officials and politicians

- facilitating the recovery of the social contract between universities and society through Third Mission activity
- using whatever (financial and other) instruments they have at their disposal
- abstaining from rapid and/or repeated changes in funding or policy regimes

Recommendations: All stakeholders

- combine forces to promote and support work of developing suitable metrics and indicators to represent the range of Third Mission activity
- unintended consequences
- over a reasonable timescale: neither long nor hurried





2. Recommendations from the IF4TM reports (D1.3 and D1.4)

2.1 D1.3 Report on existing strategies and laws in the Republic of Serbia

The Law on Higher Education

- The recommendation of the relevant Work Group for organization and management is that in the Article 4 which defines the principles of higher education, the existing principles are expanded with:
 - "the unity of education, scientific research and artistic work on one side with the innovation activity on the other side"
 - "links to the pre-university education and cooperation with the society"
 - o "following the principles of intellectual property rights in the knowledge transfer processes"
- The most of the new recommendations concerning the third mission are related to the defining of organizational units dealing with knowledge and technology transfer and innovations, as well as the commercialisation of achieved research results (articles 38, 47, 49).
- The Work Group recommends the correction and improvement of existing funding model in order to use budget resources more rationally and to improve the quality of higher education. For this purpose, it is necessary that the model of budget funding includes the quality as additional criteria. Also, this model has to encourage market/entrepreneurial activities of faculties, i.e. making their own profit that will be exploited to raise the quality of educational process by investing in science, material and technical equipping of faculties, international cooperation, salaries and everything else that is not partially or completely covered with the budget funding.

The Law on Innovation Activity

- The new Law needs to create the legal framework for more successful realisation of innovative activities at universities. In that sense, it is necessary to envisage the solutions that will enable the establishment of organisations and units at universities dealing with the innovation activities.
- The registration of organizations dealing with innovation activities at universities needs to be simplified, having in mind that universities are accredited for scientific research activities.
- The Law should encourage innovation activities in academic, research and all other sectors and also to support all other forms of transfer and diffusion of innovative solutions.
- Leaving the space for establishment of specific funding mechanisms, new Law should continue to support the establishment of science and technology parts, spin-offs, technology transfer offices, IPR offices in public research organisations and universities that will facilitate the education of young people and gaining of new skills in accordance with the demands of Serbian and EU labour market, as well as demands of knowledge and technology transfer into the local and international business sector.





 The new Law provisions need to support the opportunities for creating stronger links between universities and industry in the area of innovation activities, including here the flexible funding mechanisms as well.

Law on Scientific and Research Activity

- Article 110 of existing Law needs to explain in more detailed manner the exact measures and tax policy for encouraging the scientific and research activities
- One of the articles needs to envisage the financial incentives for those teams that are successful in international projects, particularly in Horizon2020 program so that researchers and their institutions are encouraged to applied and be more competitive
- This Law should envisage the vision of organisation of Serbian institutes, especially
 encouraging those technical and technological ones to be more industry oriented and
 more active in their participation in international funding schemes
- To adjust the legal provisions in this Law with the provisions of the Law on higher education that would allow the eminent scientists (PhD) on researcher positions to be engaged as lecturers at certain study programmes and as mentors for PhD students
- The Law should envisage the significant periodical investments into scientific and research infrastructure and modern equipment which is necessary for high quality research and producing the top results
- One of the articles needs to envisage the incentives system for researchers who are currently working at the prestigious foreign institutions and who would like to return to Serbia to continue developing their scientific careers
- The principles of scientific and research activities defined in the Article 5 need to be expanded with the clearly defined principles which follow the universities' third mission
- The aims of scientific and research activities (Article 6) need to cover some additional activities such as:
 - Technology transfer
 - Encouraging entrepreneurship and
 - o Encouraging the development of innovations

Strategy for education development in Serbia 2020

- VO-ZD26 improvement of cooperation with employers and industry
 - To envisage the obligation of HEIs to form the Employers Councils that would approve the study program curricula
 - To envisage the obligation of HEIs to define the rules, forms, mechanisms and procedures for development of university-industry cooperation
- VO-ZD28 Strengthening of innovative potential and increase of innovative outcomes
 - To increase the share of highly educated people engaged in research and innovations in HEIs, institutes and enterprises
 - To ensure that research and development of innovations are always the part of higher education system by changing the organizational structures, funding models and incentives systems





- To support the applied research that rely on the fundamental research which is directed towards the set priorities and which is the base for development of innovations
- Organized research work at all universities (regardless of their size and ownership structure) should include significantly higher number of associates (teachers and assistants).
- To establish applied research at colleges of applied sciences as one of the pillars of their establishment and development
- All HEIs should educate students for the development of innovations and entrepreneurship through teaching process or implementation of student projects
- VO-ZD29 Strengthening of entrepreneurial component of higher education
 - To support the concept of "entrepreneurial university"
 - To encourage the establishment of venture capital funds and other specialized financial institutions (so-called accelerators of commercialisation of new ideas)
 - o In order to attract foreign companies to open their research and development centres in Serbia or to cooperate with HEIs and their research centres, it is necessary to develop the special program of support for development of centres of researcheducation-industry excellence (including HEIs) through networking and other forms of cooperation with private investors

Strategy for scientific and technological development of the Republic of Serbia for the period 2016-2020 – "Research for innovations"

- Having in mind that the Strategy envisages the large number of actions and measures
 within six specific objectives, as well as the fact that some of them were presented in the
 D1.3 Report by Work Group WG1 on the project, the first priority activities is the
 development of the Action plan for the implementation of the Strategy.
- The Plan of the Ministry of Education, Science and Technological Development is to develop the Action Plan within the six months from the date when the Strategy was adopted. The members of Work Group that will be formed by the Ministry will be responsible for this activity.
- Action Plan needs to include the activities for all recommended measures within six specific objectives with deadlines, progress indicators, expected results and impacts, as well as the list of organisations responsible for implementation of each activity.

Strategy for development of adult Education in the Republic of Serbia

- To create the institutional framework
- To develop the partnership at local, regional and international level between the service providers and service users in order to define the educational demands
- To establish the National and local council for consulting in the area of development of human resources
- Cooperation with international organizations for better access to lifelong learning funding programmes
- To define the funding sources (private sector, individuals, fiscal policy, international projects)





- To change the mind-set regarding the adult educations
- To introduce the combined funding, public, private and individuals (budget + individual)
 for education where mutual benefits are achieved, to introduce tax incentives for
 employers who invest in education of employees, as well as for the individuals interested
 in continuing their education
- Envisaged actions related to the adult education which are relevant for the third mission, particularly continuous education are as follows:
 - Establishment of network of publicly recognized activity organizers of adult education
 - Design of development program and vocational workplace learning
 - Introduction of short courses in order to gain necessary knowledge and skills with ECTS system applied
 - Introduction of quality assessment system at institutions for formal and non-formal adult education at all levels
 - Introduction of e-learning into adult education
 - Establishment of third age universities
 - Allocation of budget resources depending on the possibilities (republic, province, local budget, etc.)
 - Application of new funding model for higher education including the subsidized scholarship loans
 - New measures for incentives systems for natural persons and legal entities
 - Directing the funds from private sources and international projects in adult education and forming of public-private partnerships
 - Creation of financial support for public presentation and promotion
 - Influencing the relevant actors and partners to implement all measures, particularly Ministry of education, science and technological development, to form the Work Group whose members will monitor the implementation of the Action Plan and develop foreseen electronic data base
 - o Informing the public about the concept of lifelong learning, its benefits, service providers and examples of good practice
 - Development of the model of participation of social partners in definition of curriculum

Strategy for supporting the development of small and medium enterprises, entrepreneurship and competitiveness for the period 2015-2020

- It is necessary to harmonize the study programmes and enrolment policy with the market demands
- It is necessary to include the practical placement into study programmes that would be realized in the real environment future working place
- Entrepreneurship as a subject and related business disciplines (marketing, management, organization, etc.) need to be introduced into study programme at the first level at most of the faculties
- Through their centres for lifelong learning and career development, universities should support this process by designing and implementing the non-formal training in the area of





entrepreneurship which would be targeted to students and graduates, but also to managers, employees, entrepreneurs, etc.

- The special attention should be paid to the introduction of contents related to the entrepreneurial education at faculties that educate the teaching staff
- The strengthening or even establishing of relations between the private sector and scientific and research sector is necessary
- University community needs to design and implement the programmes adjusted to the SMEs related to the building capacities for non-technological innovations, such as: using information and communication technologies, marketing, successful business communication skills, etc.
- It is necessary to train and strengthen SMEs to participate in the EU projects such as: Horizon 2020, Erasmus plus, IPA, etc. and in that way provide the resources for financing of innovative activities and processes.

<u>D1.4 Analysis of the regulatory documents and existing structures for all three</u> dimensions of third mission activities at seven Serbian HEIs

- Building stronger commitment to Third Mission by explicitly including these activities into universities' mission statements, regulatory and strategic documents;
- Developing a list of indicators and ranking methodology for university Third mission;
- Keeping all the relevant stakeholders informed about the third mission activities that are happening on the university and its faculties;
- Raising awareness about the importance of the third mission of university both in academia and general public.
- Encouraging entrepreneurial behaviour among academics and students at all levels of studying;
- Encouraging cooperation with business sector to foster all three dimension of the third mission;
- Investing more resource into building organisational capacities in order to be able to undertake third mission to further develop established organizational units.





3. Recommendations from policy seminar discussions (round tables)

Recommendations: Ministries and public officials

- The third mission of universities should be legally supported and incorporated in relevant laws (the Law on Higher Education, Law on Scientific and Research Activities, Law on Innovation Activities) and current strategies in Serbia in compliance with the Europe 2020 strategy and Western Balkans Regional R&D Strategy for Innovation
- The Law on Higher Education should explicitly define standards for all universities in order to have high quality of higher education
- As important milestones for development of third mission framework it is essential to develop new Law on Innovation Activity or to make necessary amendments of existing Law and to initiate the development of Smart Specialization Strategy as part of the negotiation Chapter 25; Ministry needs to form Work Groups for abovementioned activities and combine them with IF4TM Work Groups
- To allow accredited R&D institutions to apply for the national innovation projects (financed by the Ministry of Education, Science and Technological Development), and not only registered innovation entities (Register of the Ministry); it is also recommended that call for innovation projects should be open all the time
- To reinforce innovations through cooperation of the Ministry of Education, Science and Technological Development with the Ministry of Economy (relevant entities for networking: universities, institutes, SMEs, micro enterprises, large companies, etc.)
- To develop mechanisms and incentives for better employment of young population in order to stop the brain drain and to engage young perspective researchers and graduates at well-paid positions at R&D and other institutions and domestic enterprises
- To form the guaranty fund within the Ministry that would secure the 10% of the prefinancing/cofinancing of international projects, so that researchers can apply and implement the projects from international funding schemes with better success rates in order to return investment of the Ministry for membership fees in international programmes (e.g. Horizon2020)
- Ministry needs to recognize and formalize the work places in the Rectorates dealing with the third mission. The staff cost for at least one employee needs to be financed by the Ministry (technology transfer offices, lifelong learning centres, collaborative centres, patent offices, business support offices, career development centres, etc.) in order to support TM activities; well-developed reporting and monitoring mechanisms should be also developed and implemented in order to measure performance indicators and overall impact of this initiative
- To invest more in capacity building of human resources, and less in buildings and other infrastructure for education and research
- Increasing the number of grammar schools and reducing the number of unnecessary vocational secondary schools in order to increase the number of potential students
- To show initiative to steer things defined by Strategies, especially the development and implementation of Action Plans which should be precisely defined and monitored (subactivities, progress indicators, deadlines, actors, etc.)
- To support the development of competitiveness and innovativeness of SMEs through better collaboration with universities (TM activity) and tax incentives systems (e.g. if





innovation is well documented the tax on profit generated by the innovation in question can be reduced) since the private investment in R&D in Serbia is extremely law (0.01% of GDP)

- To introduce performance indicators (limited number) to assess the progress of universities regarding the third mission activities and to monitor long-term impact; they should be included in statistics regularly required by the Ministries
- To reduce the gap between education and employment through well-defined enrolment policy and monitoring of labour market needs
- To establish several levels of quality control and monitoring of third mission activities (local, regional, national)
- To introduce incentives for IPR protection on international level
- Introduction of Performance based contract for funding of universities and monitoring of the impact of its implementation
- Within the development of Smart Specialization Strategy which is planned in the next period (negotiation Chapter 25) mapping of regions in Serbia should identify strengths, specificities and potential in both industrial and research sector, but also to connect them with the market on national and EU level. Universities TM activities are crucial for implementation of the Strategy in Serbia.
- To legally regulate, allow and encourage the establishment of spin-offs at universities as one of the ways to commercialize research results and make them useful for Serbian economy

Recommendations: All stakeholders

- To actively contribute to establishment of innovation ecosystem, not only on national or regional level but also on city level through involvement of relevant actors and mobilization of all capacities and resources from public and private sectors for support to innovative activities: ministries, government bodies and agencies, universities, institutes, municipalities, regional bodies, chamber of commerce, private investors, venture capital funds, etc.
- To form the Ministry for science and higher education that would be focused on HEIs' activities, unlike the Ministry for Education, Science and Technology Development which includes also the institutions for pre-school, primary and secondary education
- In order to strengthen first two missions (education and research) as precondition for development and implementation of third mission it is necessary to regulate and establish order in the highly branched higher education system with more than 2200 study programmes at all HEIs, where even 80 of them are realized outside the home institutions. The joint efforts and the government support are required together with relevant ministries and national bodies.
- To have more frequent discussion within and among academic, scientific, research community, business sector, etc.
- To emphasize the role of university-industry cooperation and foster it through specific programmes and government incentives
- To raise awareness on the specificities of Serbia in the area of third mission development
- Having in mind the great investments in education of young people (especially HE) from state budget, the government should avoid agreements and arrangement with other





countries on employment of Serbian graduates which as a consequence have increased brain drain. If individual graduates educated by the state grant leave Serbia, they should participate in the costs of their education

- To introduce and develop Crowdfunding concept in order to support idea development and launching the innovations on the market
- The chambers of commerce need to be more present and visible as key actor in third mission development
- Business incubators and science and technology parks should cooperation closely with universities and initiate jointly with them the establishment of start-ups and spin-offs

Recommendations: Universities and their leaders

- To develop the strategy for development of third mission at Serbian universities and other HEIs with prioritization of activities within TM dimensions
- To strengthen first two missions (education and research) in terms of quality, efficiency and relevance for society before the development of third mission
- Although universities have key role in the development of third mission, implementation
 of its activities should not be centralised but fragmented over the institution, since there
 are separate departments dealing with managing economic engagement, student
 volunteering, student entrepreneurship, innovation, etc.
- Third mission should be integrated into everyday university routines, rather than implement it separately
- Universities should consider and focus more on possibilities of drawing on partnerships, young people and creativity as the drivers for change.
- To set up the proper structure, proper management and quality control at universities
- Universities should develop and introduce in practice the third mission policies and related legal framework at institutional level among university members (faculties, departments, institutes, etc.)
- To raise the awareness on IP management and the purpose of IPR protection
- To motivate academic staff and students to direct their activities towards society needs
- Universities must leave their comfort zones (pure teaching and fundamental research) and establish better communication based on thrust with enterprises and other external institutions
- To build the creativity culture and entrepreneurial spirit among students and pupils
- Universities should consider and enable the development of academic entrepreneurship, as there are many new opportunities for it starting from start-up or spin-off creation to the development of informal intellectual property and the creation of new forms of entrepreneurial ventures.
- To consider the graduates (alumni) while implementing third mission activities
- To regulate legally the valuation of third mission activities performed by academic staff and to introduce these criteria in the criteria for professional advancement. The most common criteria for advancement at this moment are related to the number of SCI papers and teaching.





- To identify examples of good practice in implementing of TM activities and promote them on different media
- To establish Employers Council at universities that will have influence in curriculum development, continuing education processes and in development of sustainable collaboration of universities with business sector
- To engage student organizations and students in third mission activities especially within the social engagement dimension through volunteering and in some case paid activities within universities scholarships.

Recommendations: Academic staff

- Since national investments into science and research are at a very low level (0.4% of GDP), it is recommended to academic staff to be more engaged in fund raising activities through preparation of project proposals within EU funding schemes (e.g. Horizon2020), which will improve their research capacities (human resources, scientific equipment)
- To identify the research results that could be commercially exploited and to find the appropriate partners and ways for their transformation into innovations
- If commercialization of results is possible at international level, IPR protection should be extended from national to international level
- To file for patent application before the submission of scientific papers and doctoral dissertations to repository (in case that this kind of IPR protection is needed)
- In case of multiple innovators/applicants for IPR protection (in collaborative research projects, national or international), it is recommended to use the open concept with predefined ownerships, rights and obligations, terms of exploitation in Partnership agreement before the collaboration starts.
- To boost the creativity of students within their work in multidisciplinary groups within the study programmes courses where joint student projects are planned in syllabus
- To encourage students and young researchers to develop their ideas and to change the mind-set

Recommendations: IF4TM project

- To combine what was promised within the project with the priorities defined after the
 policy seminar to create the list of priority recommendations and actions in order to make
 step forward in development of third mission at universities in Serbia
- To forward the recommendations from policy seminar to rectors, university management and Ministries
- To elaborate the draft policy paper at the end of the year which defines the guidelines for the development of third mission not only at universities in Serbia but that would also be applicable for the countries facing the same challenges