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ADVANCES IN URBANISM

Abstract. This paper aims to provide an experience-based overview of current advances in urbanism, with a specific focus on the higher education sphere impacted by numerous challenges. On the one side, international projects provide the framework for fostering a connection between research and education, and on the other hand, demonstrate the importance of acquiring sources of funding for the realization of research activities that are very relevant and interesting in the context of „small countries“). In this sense, the following four projects would be presented: 1. HERSUS — an example of a strategic partnership, focused on intellectual results and activities, 2. ECOBUILT — an example of a project that correlates research in the early phase of the conception of new study programs, 3. RMB — an example of a joint master’s program project and its influence on the reformulation of the national accreditation framework, and 4. Circle U. — project focused on building a European University by co-creating knowledge and solutions across disciplines. In addition, in the thematic sense, all four projects illustrate current topics in the field of advances in urbanism: from the relationship between sustainability and heritage (HERSUS), to ecological and environmentally sensitive approaches (ECOBUILT), reuse of existing building stock and reuse, rehabilitation, reconstruction, (RMB), and public health, well being (CIRCLE U.).

1. INTRODUCTION

We are experiencing an era of accelerated growth in the higher education sphere impacted by lots of challenges derived from different layers of contemporary urban life. Having in mind that urbanism, in its scientific and exploratory nature, has spatial values at the core of study and that all urban challenges have repercussions on space, urban studies and related disciplines and scientific fields are faced with the occupation of formulating new paradigms and precedents for action. Looking at the current strategic

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and action documents, a number of priorities are found that are positioned and have an affirmative influence in the practice of urbanism: (1) The 2030 Agenda for Sustainable Development highlights the goal of ‘making cities and human settlements inclusive, safe, resilient and sustainable as one of 17 sustainable development goals (SDGs), (2) New European Bauhaus which highlights a culture- and design-led approaches as an important strategy for contemporary urban transformation continuously shaped by cultural conditions and dynamic patterns, and (3) European Green Deal Initiative which aims to improve the well-being and health of citizens and future generations through renovation and energy-efficiency of buildings.

This paper advocates a bottom-up approach that starts from the belief that a sustainable and fundamental practice of urbanism can be built exclusively through enhancing higher education and innovating study programs that rely on current priorities and challenges. The paper proposes a ‘3I’ approach which implies: (1) investigation — direction towards the conception of curricular and extracurricular activities that are based on scientific research and critical dialogue with practice, (2) innovation — direction towards a unique pedagogical agenda that implies the development of new study programs that focus on certain narrowly specialized areas or skills which can contribute to the improvement of the practical scope, and (3) integration — direction towards the establishment of an integrated university that enables a high level of interactivity and exchange of knowledge based on mobilities and initiatives that stimulate creative and critical thinking both for students and teaching staff.

This paper is by its nature experience-based while according to the type and structure it is a review. It will present the experiences of the University of Belgrade, through the initiation and implementation of Erasmus + projects co-funded by the European Commission at the Faculty of Architecture. The main goal of the review is to point out the importance of higher education in the field of architecture and urbanism, as a leading pillar for the problem-based and innovation-oriented practice of urbanism. The paper will present three program actions that are implemented within the current Erasmus + cycle (2021–2027) through the demonstration of four projects that are currently being implemented at the University of Belgrade, for which the Faculty of Architecture is a coordinator or partner.

2. STRATEGY FOR ENHANCING HIGHER EDUCATION OF ARCHITECTURE AND URBANISM

The current development of the University of Belgrade is faced with numerous challenges. Higher education plays a unique role in creating a

sustainable framework for modern society. The demand for highly qualified, socially engaged experts is increasing and changing in accordance with the numerous global challenges facing society as a whole. According to the European agenda for higher education, it is predicted that in the period until 2025, half of the existing professions and jobs require high qualifications, and the existence of numerous omissions in the education process and skills acquired within higher education is recognized. Under the influence of numerous challenges that include social transformation, climate change, globalization, urbanization, environmental threats, and increasing pressure on public services, the health system, infrastructure, and housing, as well as the growth and affirmative positioning of information technologies and the digital transition, various jobs, and professional domains are becoming increasingly flexible and complex. Such circumstances require future experts in various fields to be entrepreneurially oriented, manage complex information and systems, think creatively and problem-solving, develop an awareness of sustainable planning and development, the health of the population and the environment, use resources wisely and communicate effectively, expressing their opinions based on knowledge. Moreover, the National Sustainable Development Strategy of the Republic of Serbia recognizes applied knowledge, education, and science as dominant factors in the development of modern economy and society, which is why the continuous improvement of the education system is one of the leading directions of change for the sustainable development of society.

Well-designed programs and curricula, focused on the needs of students, are crucial for the effective development of professional skills. A wider range of elective courses, including innovative master's and specialist programs, and opportunities for continuous professional development, help higher education better respond to the needs of society. In this framework, it is necessary to harmonize study programs in accordance with European academic standards and regulations, with a special focus on the compliance of these requirements with the local context and newly identified priority areas for the labour market in a national and international environment. Numerous nationally and globally established acts confirm that effective education systems are the foundation of open and democratic societies and sustainable growth and employment, and accordingly identify education and skills as a priority for international cooperation. Accordingly, the necessity of encouraging new study programs, as well as joint study programs with reference to international universities and institutions, is also recognized. In this sense, this paper represents the belief that the gradual realization of

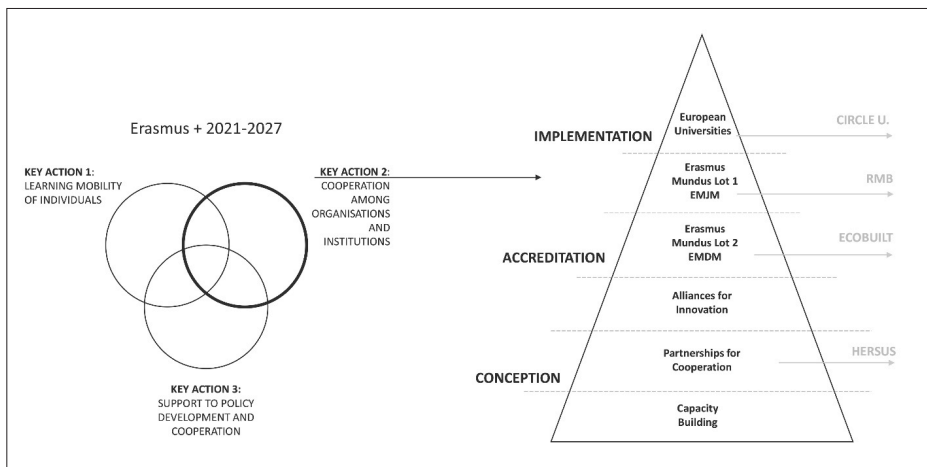


Figure 1. The structure of the Erasmus + program for the period 2021–2027 with the positions of UB-FA projects.

this long-term and the strategic goal would be in feedback with the permanent need to modernize study programs and methodologically operational ways of working at faculties.

In order to achieve a broader perspective of the aforementioned strategic goal, the University of Belgrade and the Faculty of Architecture have adopted the Erasmus + program as a specific system for capacity building and innovation within which a series of actions positioned in a hierarchical manner are carried out — from conceptualization (actions of capacity buildings and strategic partnerships) towards accreditation process (Erasmus Mundus Design Measures) and implementation (Erasmus Mundus Joint Master and European Universities). Figure 1 shows the structure of the Erasmus + program for the period 2021–2027 with the indicated positions of the 4 projects that are currently being implemented at the University of Belgrade: (1) Strategic Partnerships in Higher Education — HERSUS project, (2) Erasmus Mundus Lot 2 — Design Measures — ECOBUILT project, (3) Erasmus Mundus Lot 1 — Joint Masters — RMB project, and (4) European Universities — CIRCLE U. project. In the continuation of the paper, all four projects will be presented through (1) general background and aim, and (2) formulation of project contribution for the long-term realization of a set strategic goal.

3. PROJECTS REVIEW

3.1. *HERSUS* project

Enhancing of Heritage Awareness and Sustainability of Built Environment in Architectural and Urban Design Higher Education (HERSUS) is Strategic Partnership in Higher Education project implemented in the period from 2020–2023 and coordinated by UB-FA. Together with the UB-FA, HERSUS engages 4 European architectural schools: Iuav University of Venice, Aristotle University of Thessaloniki, University of Cyprus, and Universidad de Sevilla.

The main objective of the project is to create and pilot new innovative courses/groups of courses/extracurricular activities within existing study programs of participating schools, which can contribute to bridging the gap between sustainability and heritage. Moreover, HERSUS aims to promote greater awareness about the types and methods of innovative and sustainable-directed teaching and learning through (1) publishing Intellectual Outputs (Review of best practices, Survey on state-of-the-art, Statements for educating sustainability and heritage, Digital sharing platform, Book of innovative courses, and Handbook on Research and Design for the Sustainability of Heritage) and (2) implementing Learning/teaching/training activities (Seminar for Teaching through design for Sustainability, three Student workshops on Sustainable Reconstruction in Urban Areas, Adaptive Reuse and Resilience, and Training for Teachers on design studio practice). The project is designed to result in the conceptual framework for further formal development through the accreditation of new innovative study

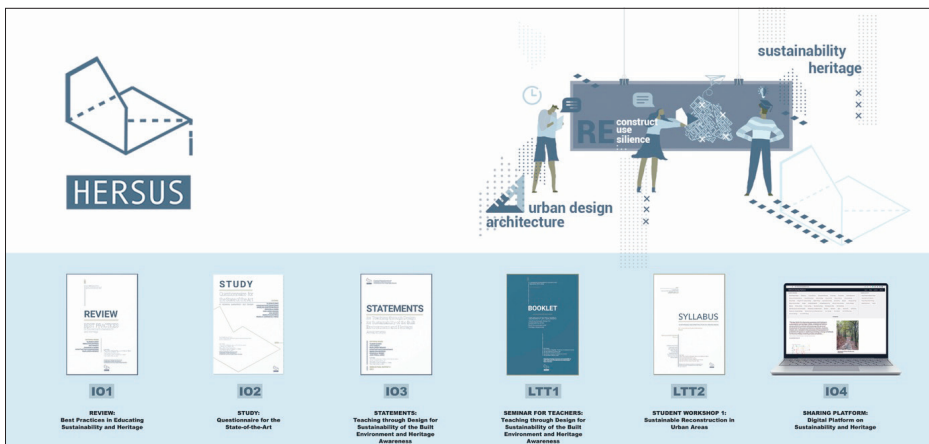


Figure 2. HERSUS Project illustration of intellectual outputs

programmes or through piloting knowledge alliances that will enhance the arena of education and arena of practice. HERSUS contribution is twofold and it is reflected in the enhanced existing study programs at the master level, and the achieved stable and sustainable education framework complementary to the globally established goals in the field of architectural and urban studies education.

3.2. ECOBUILT project

Eco-friendly Built Environment (ECOBUILT) is Erasmus Mundus Lot 2 — Design Measures project implemented in the period from 2022–2023. In this project, UB-FA is engaged as a partner institution together with the Riga Technical University (coordinating university) and the University of Genova who have agreed on a process-based, problem-based and multilevel approach based on a theoretical and practical focus on the specific areas of eco-oriented architecture and its implementation in architectural and urban design. The main objective of the project is to develop an integrated Master program in Eco-friendly Built Environment aimed at training highly qualified professionals who will be able to design and restore buildings and landscapes in urban and rural settings with a minimal impact on human health and environment.

The core strategy of ECOBUILT is to focus on specific skills related to specialized tracks: green architecture, urban design, landscape design, and renovation design. Moreover, ECOBUILT aims to raise awareness of eco-paradigm in architecture urbanism through (1) organizing scientific conferences and open houses (events directed to the wider public), and (2)

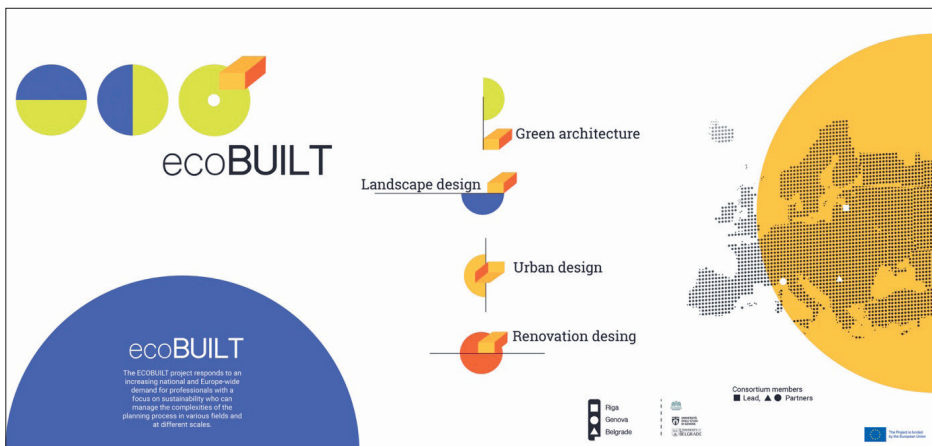


Figure 3. ecoBUILT Project illustration of main topics

developing common procedures for the accreditation process, QA, and promotion of future study programme. The project is designed to mainstream the Master's programme into universities portfolio/accreditation with the further intention to upgrade it within Erasmus + programme hierarchy. ECOBUILT's contribution can be primarily recognized in gaining experience when it comes to accreditation procedures and mechanisms according to EU standards, which at the same time enables the perception of all complementarities and differences with other institutions on the international scene of education.

3.3. RMB project

Reuse of Modernist Buildings (RMB) is forced to be implanted within Erasmus Mundus Lot 1 — Joint Master action in the period from 2023–2028. In this project, UB-FA is engaged as a partner institution together with the TH-OWL (coordinating university), the University of Antwerp, the University of Coimbra, and The Technical Institute of the University of Lisbon. The main objective of the project is to provide deep and qualified academic expertise and knowledge of procedures of a conceptual / design, technical/constructive, and methodical kind in the areas of building conversion and reuse of modernist buildings. The need for the RMB study programme is based on the individual experiences of individual partners, market surveys, and current EU initiatives that show a general concern for heritage at loss, the growing awareness of reuse as effective in fighting climate change, and development in the building industry.

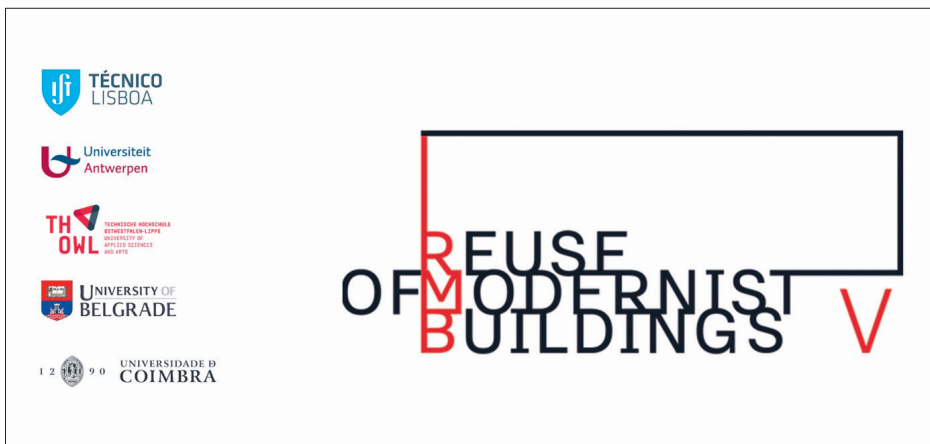


Figure 4. RMB Project illustration of partner institutions

The core strategy of RMB is to (1) deal with built heritage issues and reuse them confidently in a methodologically clear and respectful way and (2) to approach conservation, transformation, and reuse from a broad perspective, including spatial patterns, cultural heritage, climate and construction principles, social and technical assessment, and monitoring of built spaces. RMB's contribution is reflected in the broadening of institutional international activities and networking which is expected to result in an opportunity for students to apply to a new joint international Master programme in high demand, in enhanced collaboration between participating countries with the impact on the regional environment — developed regional hubs, in enhanced teaching skills of key staff members, as well as in enhanced university-business partnerships through combining knowledge into a multi-disciplinary knowledge pack.

3.4. *CIRCLE U. project*

Circle U. European University (CIRCLE U.) is an inclusive, research-intensive and interdisciplinary European university formally implemented in the period from 2020–2023. In this project UB is engaged as a partner institution together with the Aarhus University, Humboldt-Universität zu Berlin, King's College London, Université Paris Cité, University of Louvain, University of Oslo, Università di Pisa and Universität Wien.

The main objective of the project is grounded in a dedication to ethical principles and a sustainable society, links together the missions of all participating universities in education, research, innovation, and service to society, and paves the way for the universities of the future. Moreover, CIRCLE



Figure 5. Circle U. Project illustration of partner institutions and one of the activity

U. aims to promote European values, knowledge, and identity through (1) Knowledge Hubs as physical and virtual spaces for students and staff to co-create knowledge and solutions across disciplines with external stakeholders in three main fields: Climate, Democracy, and Global Health, and (2) Academic Chair Programme as a network for the implementation of Open School of Public Governance, in the Student Led Sustainable Innovation and, in the Think, and Do Tank. CIRCLE U. contribution is recognized in the capacity of the transformational changes in teaching methods and programmes, and their cross-cutting with critical thinking and problem-based research which in long-term impact contribute to the development of a specific profile of students and teachers in the European Education Area recognized as 'active co-creator.

4. DISCUSSION AND CONCLUDING REMARKS

Sustainability and responsibility toward people and environment, followed by culture and design-led approaches and green strategies present main priorities in the field of urbanism. Following this line of reasoning, all four projects illustrate current topics in the field of advances in urbanism: from the relationship between sustainability and heritage (HERSUS), to ecological and environmentally sensitive approaches (ECOBUILT), reuse of existing building stock and reuse, rehabilitation, reconstruction, (RMB), and public health, well-being and co-creation and interdisciplinarity (CIRCLE U.).

Conceptualization, development, accreditation, and implementation of the presented projects can significantly contribute to encouraging the adaptation of the legal framework that would enable more effective cooperation on the joint implementation of interdisciplinary study programs that can further respond to increasingly intense changes in the labour market and contribute to the formation of new highly qualified professionals. The establishment of the Framework for monitoring and evaluating quality in accordance with the Strategy for the Development of Education and Training in the Republic of Serbia until 2030 is a prerequisite for continuous and systematic monitoring and evaluation of the quality of education, as well as the creation of purposeful educational policies based on accurate and up-to-date data. Continuous monitoring of quality would contribute to a greater degree of transparency and integrity at the University of Belgrade. On the other hand, improving and evaluating quality would contribute to the development and efficiency of the quality management system through a multiple quality control system that will include all relevant aspects for the management and work of a modern University — science, teaching, finance, and international cooperation.

