# SmartWB NEWSLETTER

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### **Editorial**

Welcome to the 3rd Newsletter issue of the SmartWB Project:

Curricula innovation in climate-smart urban development based on green and energy efficiency with the non-academic sector

We were all very excited about bringing this issue out, so that you could start knowing more about us, and getting updated about what we have been doing for the SmartWB project development.

The Newsletters will periodically publish information about the project partners' roles; the project progress; news and activities; as well as about the synergies we make withother research and educational initiatives and activities.

The Newsletter of the SmartWB Project is edited by its dissemination partner Polytechnic University Of Tirana (UPT) including contributions from project partners and active stakeholders.

Enjoy your reading!

Comments and announcements for the next issues of the SmartWB Newsletter should be sent to the email address below with the subject: "Newsletter". Your feedback is very welcome. *Thank you!* 

Email: genti.qirjazi@fin.edu.al Website: https://smartwb-eu.com/



Co-funded by the European Union

### Project Description THE SMARTWB ERASMUS+ PROJECT

In this unprecedented era of increasing urbanization and the context of the 2030 Agenda for Sustainable Development, the Paris Agreement, the UN Framework Convention on Climate Change and other global development agreements and frameworks, cities should be well-planned and well-managed.

The broader objective of the SmartWB project is to improve the quality of higher education in the climate-smart urban development (CSUD) field, strengthen its relevance for the labour market and society, enhance relations between Higher Education Institutions (HEIs) in Western Balkans (WB) partner countries (Albania, Bosnia and Herzegovina and Montenegro) and the economic and social environment by establishing a technological for cooperation, exchange knowledge, experience and good practices, modernizing universities' courses in line with EU trends and improving the level of competencies and skills of teaching staff. This broader objective fully complies with the priorities of the Capacity Building projects within the Erasmus+ program, i.e., Green Deal.

To achieve planned wider and specific objectives, the Project Consortium consists of six HEIs from EU Member States and third countries associated to the Programme: Austria, Croatia, Germany, Norway, Spain and Serbia and seven HEIs from targeted countries of Region 1: Albania, Bosnia and Herzegovina and Montenegro, supported by 5 non-academic partners from the West Balkans region.



#### **WEBSITE & SOCIAL MEDIA**



https://smartwb-eu.com/



@smartwb-erasmusplus-project



@smartwb\_erasmusplus\_project



Smartwb Erasmus+ Project



@smartwberasmusplusproject

# Project Progress WHAT WE HAVE DONE

# WP2 finished!

# Analysis of current status in climate-smart urban development

The successful completion of Work Package 2: Analysis of current status in climate-smart urban development, led by BOKU, marks a significant milestone in our project! It resulted in four reports which analyses the current status in climate-smart urban development



### T2.1 Identification of WB regional issues related to urban development:

The report concludes that urban development in the Western Balkans (WB) faces common challenges such as weak social cohesion, inadequate planning regulations, environmental degradation, and car dependency, but also highlights opportunities for regional improvement through sustainable, inclusive policies, EU integration, and cross-sectoral cooperation.

### T2.3 Analysis of existing curricula related to CSUD in Programme countries and WB HEIs:

The report concludes that while curricula related to Climate-Smart Urban Development (CSUD) in EU Member States and associated countries are more advanced and stable, curricula in third countries not associated with the Programme in the Western Balkans require modernization and harmonization to close gaps in technological advancement, course diversity, and alignment with sustainable urban development priorities.

### T2.2 Analysis of EU initiatives and polices related to urban development and climate change:

The report concludes that EU initiatives and policies provide a comprehensive, multi-level framework for advancing climate-smart urban development across Europe, emphasizing climate neutrality, resilience, and sustainability through coordinated legislation, funding mechanisms, and best practices tailored to national and local needs.

### T2.4 Workshop on climate-friendly and innovative solutions: current and future challenges:

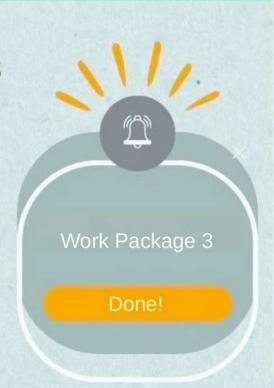
The report concludes that while the Western Balkan countries are making progress toward climate-smart urban development, significant gaps remain in regional policies, implementation of innovative solutions, and academic curricula; addressing these requires harmonization with EU standards, enhanced institutional cooperation, and modernization of higher education to equip future professionals with relevant skills.

# Project Progress WHAT WE HAVE DONE

# WP3 finished!

### Capacity building of WB HEIs

The successful completion of Work Package 3: Capacity Building of WB HEIs, led by URJC, marks a significant milestone in our project! This achievement promises to elevate the quality of education and research, paving the way for future innovations and partnerships across the region.



### T3.1 Modernisation of university courses in collaboration with the industry sector

The report concludes that modernized university courses now better align with EU standards and industry needs, enhancing student skills in climate-smart urban development through updated content and teaching methods.

### T3.3 Theme-based training of teaching staff for acquiring new practical skills

The report concludes that the theme-based trainings successfully equipped Western Balkan university teachers with modern teaching methods and practical skills, enabling them to implement updated climate-smart urban development curricula aligned with EU standards.

### T3.2 Development of training programme for students internships

The report concludes that the internship programs effectively connect academic learning with real-world practice, preparing students for climate-smart urban development.

### T3.4 Providing agreements for the future cooperation between WB HEIs and the non-academic sector

The report concludes that all Western Balkan partner universities successfully signed cooperation agreements with non-academic institutions, ensuring structured student internships that enhance practical learning and foster collaboration in climate-smart urban development.

#### T3.5 Purchasing of software and laboratory equipment, installation and activation

The report concludes that the purchased laboratory equipment across Western Balkan universities has significantly enhanced educational and research capacities in climate-smart urban development, supporting modernized curricula and fostering practical, hands-on learning aligned with EU standards.

# WP4 finished!

### Creating technological platform

Work Package 4, led by UET, is now complete, resulting in the creation of an innovative technological platform. This platform integrates urban planning systems, industry needs for green jobs, and action plans to foster stronger connections between higher education institutions and the wider economic and social environment.



T4.1

T4.2

T4.3



Introduction with innovative technological solutions in CSUD in EU Member States and third countries associated to the Programme



Analyse of industry sector needs for green jobs and climatesmart solutions in WB



Development of technological platform for sharing experiences in CSUD

# International Educators Gathered in Höxter for 5th Theme-Based Training on Sustainability and Innovation

Höxter, Germany — From March 19 to 21, 2024, educators from Albania, Bosnia & Herzegovina, and Montenegro gathered for an intensive themebased training program organized by Martin Oldenburg and Anna Mues at Faculty of Environmental Engineering, TH OWL. The event provided a platform for educators to engage in discussions, hands-on experiences, and knowledge-sharing on sustainable solutions and digital learning methodologies.



The training commenced with a welcome address by Yvonne Knepper-Bartel, Vice-President of Education at OWL University. Participants explored the THOWL campus and its botanical garden before delving into laboratory visits. The energy lab showcased solar cells and hydrogen batteries, while the water lab featured course structures and learning videos. Educators also had the unique opportunity to observe activated sludge under a microscope, gaining insight into wastewater treatment processes. The session concluded with a presentation on digital learning platforms, including an interactive 360° virtual tour of a wastewater treatment plant.

Day two emphasized creativity and course development through Lego Serious Play (LSP), led by Tanja Osterhagen. Using Lego models, participants visualized and debated ideas, later designing course structures that integrated digital learning tools. The afternoon featured a presentation by Joerg Felmeden on the "Waterplus EWL" network project, focusing on collaboration between businesses and municipalities for water management.

The final day took participants on a bicycle tour in Essen, led by the Emschergenossenschaft. The tour highlighted the transformation of the Emscher River from an open sewer to a restored natural waterway. Experts Ulrike Raasch and Anke Gebhard discussed the redevelopment of industrial sites into residential and recreational areas, showcasing sustainable urban planning in action.

This immersive training strengthened crossborder collaboration and equipped educators with valuable insights into integrating sustainability and innovation into their teaching methodologies. The event marked a significant step towards fostering environmentally conscious and digitally advanced education.







#### Educators from the Western Balkans Gathered in Vienna for 6th Theme-Based Training

Vienna, Austria — From April 3 to 5, 2024, BOKU University hosted the 6th theme-based training for teaching staff, bringing together 18 participants from Albania, Bosnia & Herzegovina, and Montenegro. Organized by Christiane Brandenburg from the Institute of Landscape Development, Recreation, and Conservation Planning, the training focused on innovative teaching methods, climate adaptation, and sustainable urban planning.

The event featured hands-on workshops, interactive group exercises, and the introduction of new teaching tools. A key highlight was the LandscapeLab, where participants explored cutting-edge research in climate-adapted planning, urban heat islands, recreation management, and green infrastructure development.



Participants also engaged in guided tours through BOKU University's new hydraulic laboratory, gaining insight into water The management technologies. training extended beyond the university, with visits to Vienna's recreational area. Wienerberg, and climate-smart urban neighborhood, Biotope City, offering real-world examples of sustainable planning in action.



With a diverse group of educators exchanging ideas and experiences, the training strengthened international collaboration and equipped participants with practical skills for integrating sustainability into education. This milestone event reaffirmed the importance of knowledge-sharing in addressing global environmental challenges.

# Successful Inter-Project Coaching Session Enhances Collaboration at THOWL

Höxter, Germany — On June 13-14, 2024, an effective Inter-Project Coaching session was hosted at THOWL, drawing 17 participants from various project teams. Twelve partners presented their respective projects, fostering an engaging environment for analyzing common challenges and strategies for successful project implementation.



The session emphasized practical approaches overcoming typical project hurdles. significantly contributing to enhancing knowledge, professionalism, and the overall quality of international project execution. Beyond this main event, dedicated consortium members ensured additional visibility and knowledge exchange through four further inter-project coaching sessions, reinforcing the collaborative spirit essential for successful project outcomes.

## The 3rd Project Management Committee meeting

Höxter, Germany — The third Project Management Committee meeting of the SmartWB initiative took place on June 14, 2024, at the OWL University of Applied Sciences and Arts.

Marija Jevrić from the University of Montenegro opened the session, recognizing the successful completion of previous project stages and appreciating partners' timely contributions. Presentations included the recently launched digital platform by Agim Kasaj (European University of Tirana), implementation plans for modernized courses outlined by Emina Hadžić (University of Sarajevo), and upcoming dissemination strategies discussed by Genti Qirjazi (Polytechnic University of Tirana).

Feedback from the event showed high satisfaction among attendees, reflecting positive collaboration and continued commitment to advancing climate-smart urban development through innovative education.



# The 3rd Quality Assurance Committee meeting

Höxter, Germany — On June 14, 2024, the Third Quality Assurance Committee meeting of the SmartWB project convened at the OWL University of Applied Sciences and Arts.

The meeting opened with remarks from Milan Gocić (University of Niš), who praised the high-quality deliverables produced in the project's initial phases and highlighted the committee's ongoing monitoring role. Key discussions included the implementation of a technological platform and modernized courses, emphasizing their sustainability and relevance to various stakeholders.



Marija Jevrić (University of Montenegro) updated participants on the upcoming external evaluation by Professor Marjan Gušev from the and University of St Cyril Methodius. Additionally, Martin Oldenburg (Technische Hochschule Ostwestfalen-Lippe) emphasized coaching continued inter-project dissemination efforts.

The committee also reviewed previous issues of the SmartWB e-newsletter and discussed preparations for upcoming roundtables and workshops aimed at promoting green employment and low-carbon technologies. Feedback collected from the event demonstrated high participant satisfaction, underlining the effective collaboration among project partners.

## The 3rd Steering Committee meeting



Höxter, Germany — The third Steering Committee meeting of the SmartWB project was successfully held on June 14, 2024, at the OWL University of Applied Sciences and Arts.

Marija Jevrić (University of Montenegro) opened the session, expressing gratitude for the timely completion of project milestones and highlighting the high quality of submitted deliverables. The committee extensively discussed upcoming tasks, the mobility plan, and strategies for effective periodic reporting.

Notably, participants underscored the need for increased media involvement and better use of dissemination platforms, suggesting more proactive engagement from all partners. Further discussions were scheduled to enhance platform contributions, with an additional online meeting planned to address these aspects.

The next steps agreed upon included more robust reporting on dissemination, exploitation, and communication activities, ensuring the project achieves its intended impact and sustainability goals.





# SmartWB Project Hosts 4th Progress and Coordination Meeting in Zagreb

Zagreb, Croatia — On December 10-11, 2024, the University of Zagreb, Faculty of Geodesy, welcomed participants from across the region for the 4th Progress and Coordination Meeting of the "SmartWB" project. This pivotal event gathered project partners to review achievements, share progress, and coordinate future activities.

The meeting opened with a welcome address by representatives from the University of Zagreb, followed by an update on the project's overall status, presented by Project Coordinator Marija Jevrić from University of Montenegro.



Key sessions included detailed discussions on the implementation of new and modernized courses, led by Amir Hajdar (UNSA), and updates on student internships presented by Marko Ćećez (UNMO).

Participants also engaged in conversations on the posting of best-practice examples and selfevaluation of implemented courses, led by Hasimin Keći (European University of Tirana) and Milan Gocić (University of Nis), respectively.

The dissemination and quality assurance segment featured status reports on the project website, roundtables with the non-academic sector, and promotional activities emphasizing emission reduction and low-carbon technologies. Presentations were delivered by Ivana Ćipranić (Univerity of Montenegro), Aladin Crnkić (UNBI), and Elona Karafili (U POLIS).

Committee meetings concluded the event, including sessions for the Quality Assurance Committee, Steering Committee, and Project Management, facilitating the planning of future initiatives.

A cultural highlight of the meeting was the social event on the first evening, featuring a visit to the Salaj family's renowned Christmas fairytale light display and a traditional dinner at Kezele family restaurant.

This successful gathering reaffirmed the consortium's commitment to advancing climate-smart urban development and fostering collaboration between academic and non-academic sectors.

### DISSEMINATION NEWS

#### SmartWB Project Equips Western Balkan Universities with Advanced Laboratory Facilities



Under ERASMUS-EDU-2022-CBHE the scheme of the European Union, the SmartWB project continues to significantly upgrade the educational and research capacities of Higher Education Institutions across the Western Balkans. A recent report, "Report on Purchased Laboratory Equipment," highlights the successful procurement specialized laboratory of equipment aimed at curricula innovation in climate-smart urban development and energy efficiency.

Partner institutions including the University of Montenegro, University of Sarajevo, Dzemal Bijedic University of Mostar, University of Bihać, European University of Tirana, Polytechnic University of Tirana, and Polis University, have successfully completed procurement processes tailored to their unique educational and research needs.

These strategic procurements not only teaching modernize and learning methodologies but also foster deeper research collaborations between academic institutions and industry partners, ultimately contributing sustainable urban to development initiatives throughout the region.



The investments made through the SmartWB project represent a significant step towards achieving climate-smart urban development goals in the Western Balkans.



### DISSEMINATION NEWS

# Inter-project coaching session organised by SmartWB Erasmus+ CBHE project

The SmartWB project organised the Interproject coaching session at the INTERNATIONAL CONFERENCE "CIVIL SCIENCE **ENGINEERING** AND PRACTICE" GNP 2024 on 7 March 2024 in Kolašin, Montenegro. The meeting venue was Bianca Resort and Spa. The session was a project activity within the work package Quality assurance and monitoring, the task being inter-project coaching. The moderators were Biljana Šćepanović, University of Montenegro and Milan Gocić, University of Niš.



Ultimately, we would like to thank all participants for their participation and the lively discussion, which benefited us all. Special thanks to the director of the National Erasmus Office, Vanja Drljević, who joined us and contributed to the discussion part, sharing her rich experience in Erasmus+projects.

#### The SmartWB team hosted the cluster meeting "Green transition in the Montenegrin higher education system"

At the Faculty of Civil Engineering, University of Montenegro, the SmartWB team hosted the cluster meeting "Green transition in the Montenegrin higher education system", organised by the National Erasmus+ Office in Montenegro. The event brought together the coordinators / local coordinators of the Erasmus+ CBHE projects oriented towards the green economy, which are currently running at universities in Montenegro. Non-academic partners participating in these projects also attended the meeting.



Given that the green economy is one of the key priorities of the new cycle of the Erasmus+ program, this cluster meeting aimed to discuss institutional approaches to "green" initiatives at Montenegrin HEIs, focusing on Erasmus+ projects' achieved and expected results and the impact of these projects on the system of higher education in Montenegro.

# Project Dissemination DISSEMINATION NEWS

### Ecoportal has published a text about SmartWB project



We are honoured that the internet portal about clean energy and energy transition in Montenegro, Ecoportal (www.ecoportal.me), has published a text about the Erasmus + project SmartWB.

Ecoportal is the first and most famous Montenegrin portal on energy efficiency, ecology, and environmental protection. Its primary task is to acquaint Montenegrin society with the processes and advantages of the green energy transition.

You can download the text from the link <a href="https://www.ecoportal.me/smartwb-projekat-za-inoviranje-nastave-u-oblasti-gradnje-i-urbanog-razvoja-na-gradevinskom-fakultetu-ucg/">https://www.ecoportal.me/smartwb-projekat-za-inoviranje-nastave-u-oblasti-gradnje-i-urbanog-razvoja-na-gradevinskom-fakultetu-ucg/</a>

Thank you, Ecoportal!

#### SmartWB Project Advances Educational Innovation through Active Dissemination



The SmartWB Project, funded by the European Union under ERASMUS-EDU-2022-CBHE, is making substantial strides in advancing educational practices within higher education institutions across the Western Balkans through targeted dissemination and communication activities.

Recent dissemination reports from partner institutions detail extensive knowledge-sharing events following international training workshops aimed at integrating innovative teaching practices into curricula, specifically within the domain of climate-smart urban development and energy efficiency.

These activities emphasize the SmartWB project's commitment to not only elevating educational standards but also facilitating continuous professional development among academic staff, ultimately supporting the broader aim of sustainable and climate-smart urban growth in the Western Balkans region.

# Project Dissemination DISSEMINATION NEWS

### UNMO presented a paper at the BHAAS 2024

At the BHAAS International Symposium on Sustainable Urban Development 2024 held in Sarajevo, 20 - 23 June 2024, Marko Ćećez, a partner from Džemal Bijedić University of Mostar, presented a paper titled Increasing energy efficiency in Bosnia and Hercegovina Investment analysis of University of MostarRectorate building.



By introducing this paper, partners from University of Mostar UNMO spread their knowledge in the area, which is one of the main focuses of the SmartWB project. Team members from the University of Montenegro, headed by project manager Marija Jevrić, also attended the paper presentation to promote the project.



# The interactive web-based platform has been developed

We want to inform you that the platform is active!!

A link to access the platform is now available; <a href="https://www.smartwb.ucg.ac.me/page.php?">https://www.smartwb.ucg.ac.me/page.php?</a>
<a href="mailto:id=39">id=39</a>

The interactive web-based platform has been developed to involve the non-academic sector and to share best practices.

#### Olga Ćalasan from UoM was guest on the popular TV show Lice Podgorice



Teaching assistant at the Faculty of Civil Engineering University of Montenegro, Olga Ćalasan, M.Sc., was on the popular show Lice Podgorice. The main reason for the guest visit was to present the results of SmartWB.

Ćalasan pointed out that the modernization of the ECTS course catalogue has already been carried out, the skills of the teaching staff have been improved, a modernly equipped laboratory has been acquired, and an interactive web platform has been created that will enable the exchange of knowledge, experience and best practices between project partners and all interested parties in the countries of the region.

### DISSEMINATION NEWS

#### Online seminar Climate-smart urban development: learning from best practices was held

On November 6, the international online seminar Climate-smart urban development: learning from best practices was held at the Faculty of **Economics** and Business Sciences, University Rey Juan Carlos, within the Research Workshops program of the Faculty of Economics and Business Sciences - 2024 and within the framework of the European project Curricula innovation in climate-smart urban development based on green and energy efficiency with the nonacademic sector, SmartWb.



Following the presentation of the seminar and the link between its theme and the European project by Carmen de Pablos Heredero. Professor of Business Organization at the FCEE, Professor Vuk Milosevic, from the Faculty of Civil Engineering and Architecture of the University of Nis, Serbia, gave the first presentation on the topic of Architectural Structures appropriate for sustainable urban development, highlighting their advantages they are healthier, produce more oxygen and are aesthetically more attractive - but also their limitations - they are not immediate and not always modifiable, but always offering arguments from the perspective of economic, social and environmental sustainability in favor of the potential of new types of membranes.

#### Biljana Šćepanović UoM guest on the popular TV show "60 minutes"

As part of the activities within the Erasmus + project SmartWB, in which the Faculty of Civil Engineering of UCG is the coordinating institution, Biljana Šćepanović, full professor of the Faculty of Civil Engineering, was a guest on the show "60 minutes", TV Prva.

The visit promotes new laboratory equipment, which the Faculty acquired as part of the SmartWB project.



Professor Šćepanović also announced the following significant events within the SmartVB project, namely:

- a round table with business and public sector representatives on climate-smart development, low carbon and innovative technologies and their application in the construction sector. In the organization of this event, the Faculty will have the help of an associated partner on the project of the Engineering Chamber of Montenegro,
- a promotional event where the general public will be introduced to the latest ideas in this sector, EU trends and reasonable solutions.

You can watch the video at the link VIDEO

### DISSEMINATION NEWS

#### Exploring Green Construction: Innovative Use of Recycled PET Bottles

Modern construction practices increasingly recognize the importance of developing alternative methods and materials that can reduce the negative ecological impact of the construction sector. By utilizing recycling processes, the need for the exploitation of natural materials, which are non-renewable resources, is reduced, thereby minimizing waste and contributing to environmental protection. Six students were engaged in the students' internship, conducted with the collaboration of Dzemal Bijedic University of Mostar and Makerspace Garaza. They were introduced to green construction concepts and PET waste recycling.



The experiment is conducted with recycled PET bottles explore using fibre reinforcement concrete. which can the material's strength increase and durability. The plastic strips were produced using a filament extruder with widths up to 1 cm. Secondary processing with a PET bottle cutter resulted in fibres with a thickness of 1.8 mm. Since the recommended fibre diameter for concrete mixtures is 0.2 mm, further processing was conducted with a 3D printer to reduce the thickness to the target diameter of 0.2 mm. The final product is the bundle of fibre cut into 3 cm length fibre.

#### SmartWB UNI Team Showcases Knowledge-Sharing Platform at SAUM 2024 in Serbia

On November 15, 2024, Milan Gocić, University Nis, participated in the Project Session at the Systems, Automatic Control and Measurement 2024 Conference, held in Niš, Serbia. The SAUM (Systems, Automatic Control, and Measurements) conference is a prestigious event that gathers experts, researchers, and professionals from various technical and scientific fields to exchange knowledge and present innovative projects.



During his presentation, Gocić provided an in-depth overview of the SmartWB project, outlining its structure, key objectives, and potential impact. He also introduced a webplatform based designed for efficient knowledge-sharing and collaboration. emphasizing role in fostering interdisciplinary communication and innovation.

Gocić's presentation at SAUM 2024 was well received, sparking discussions among attendees about the potential applications of the SmartWB platform in academia, research, and industry.

For more information about the SAUM 2024 Conference, visit: SAUM 2024 Website.





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