

## РЕПУБЛИКА СЕВЕРНА МАКЕДОНИЈА

Универзитет "Св. Кирил и Методиј" – Скопје Факултет за информатички науки и компјутерско инженерство



# Report on external evaluation of the Smart WB project "Curricula innovation in climate-smart urban development based on green and energy efficiency with the non-academic sector"

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# Report on achievement of project activities and outcomes

The project specifies activities to improve the quality of higher education in climate-smart urban development, strengthen its relevance for the labor market and society, and enhance relations between HEIs in WB partner countries by establishing a new cooperation platform to exchange knowledge, experience, and good practices with modernized University courses that improve the competence levels and skills.

Specific objectives include 1) Initiating WB community by promoting emission reduction approaches and low-carbon technologies, 2) Implementing an interactive web-based knowledge platform, 3) Improving the teaching staff's competencies and skills, 4) Modernizing university courses about climate-smart urban development, and 5) Creating technological preconditions with new equipment.

The periodic report was unavailable during the project review, so this evaluation refers to the deliveries and dissemination of provided material. The project management guide specifies all details necessary for Project Management and Reporting.

The first work package, **WP1**, is entitled "Project Management". Considering Task **T.1.1**, "Coordination meetings," this activity is ongoing. The corresponding 1<sup>st</sup> and 2<sup>nd</sup> Partner's reports due to 14 Dec 2023 and 14 May 2024, reports from the Kick-off meeting, 23-24 Feb 2023, First SC and PMC meeting (with task 2.4), 31 May - 02 Jun 2023, Second SC and PMC meeting (with task 3.3), 11 - 15 Dec 2023 provide evidence of successfully organized events and meetings with details of the agenda, decisions, participants, and related documents that elaborate their outcome.

Task **T.1.2** Development of the Project Management Guide is realized completely. Delivery D.1.2 supports the beneficiaries in managing the project efficiently and successfully, providing all documents necessary for monitoring, reporting, and audits. It offers detailed insight into the management structure, activities, and roles of partners, lump sum funding principles and budgetary management, definition of eligible and ineligible costs, instructions for reporting and tendering procedures for purchasing goods and services, etc. Project reporting and financial management are specified comprehensively. The attached templates specify details on reporting each activity required by the Project management guide. It contains a comprehensive contingency plan, with risk identification, assessment, planning, risk management, specification of assumptions, and prerequisites.

Table 15 from the Project management guide specifies the identified risks and mitigation measures. Still, it does not follow the specified risk assessment procedure to assess the identified risks and provide the impact (risk level), evaluating them as mild, moderate, significant, or critical. In addition, there is no report on preventive or corrective measures to be taken upon identifying nonconformities or recommendations. I hope this will be realized, especially after this evaluation report.

Tasks **T.1.3**, Day-to-Day coordination, and related project activities are reported with details on timing, participants, and decisions. The provided documents of Task **T.1.4** "Partnership agreement signed" show successful completion.

The second work package refers to the WP2 Analysis of the current status of climate-smart urban development. Task **T.2.1** Identification of WB regional issues related to urban development is realized completely. The report D.2.1 Identification of WB regional issues related to urban development is carefully prepared and contains all relevant parts for analyzing national matters. However, the document does not include a comparable analysis of the WB region, an analysis of a common issue, and an overview of the initiatives to cope with identified problems. It looks like a set of three different national reports without a common summary explaining what was not done and why not.

Reporting was provided for Task **T.2.2.** "Analysis of EU initiatives and policies related to urban development and climate change". D.2.2 presents relevant EU initiatives and policies related to urban development and the national best practices in consortium countries.

**T.2.3** The Analysis of existing curricula related to CSUD was completely realized. Delivery D.2.3 contains a comprehensive evaluation of skills and mapping of courses analyzing the EU partners (group 1) and WB partners (group 2), summarized in Tables 7&8 and Figures 1&2. This is followed by a summary and conclusions to modernize the curricula and update them with missing skills and knowledge.

Addressing Task **T.2.4.** Workshop on climate-friendly and innovative solutions: current and future challenges, the consolidated report D.2.4 includes an analysis of identified issues matched to solutions in the EU with an indication of how the identified issues will be handled to avoid similar issues in the future. Five topics were prioritized: 1) missing implementation of strategies and policies, 2) introducing sustainable forms of mobility by reducing car dependency, 3) improving the infrastructure for water and waste management, 4) raising public awareness of sustainability, and protecting the environment.

The third work package, WP3, addresses the capacity building of WB HEIs. All tasks are completed and reported.

Referring to Task **T.3.1** Modernization of university courses in collaboration with the industry sector, the delivery D.3.1. contains all necessary elements, including a well-defined methodology and action plan, and enlists details on modernized courses using a highly cooperative and collaborative approach.

Task **T.3.2** Development of training program for students' internships is reported in D.3.2, introducing content, scope, and methodology to develop a training program. It includes internship templates, an elaboration of developed internships, and a descriptive summary.

The delivery within Task **T.3.3** is "Theme-based training of teaching staff to acquire new practical skills". D.3.3 describes six organized trainings, providing information about participants, agenda, objectives, and trainers with all necessary statistics. Training reports detail descriptive and quantitative scores from internal evaluation of realized training. I suggest making the training material publicly available.

Task **T.3.4**, "Providing agreements for the future cooperation between WB HEIs and the non-academic sector," has been completed, and the corresponding delivery, D.3.4, presents all details about signed agreements.

Finally, Task **T.3.5**, "Purchasing of software and laboratory equipment, installation and activation," has been completed, and D.3.5 contains all relevant elements for laboratory equipment, including an explanation of the procurement procedure, an elaboration of the needs, matching the needs with objectives, and evidence of procured equipment.

All tasks within WP4, "Creating a technological platform", have been completed.

A report was provided for task **T.4.1** Introduction of Innovative Technological Solutions in CSUD, and delivery D.4.1 presents a collection of comprehensive questionnaire answers

about innovative technological solutions. It contains an overview of population distribution, urbanization, and pollution in Europe, followed by a CSUD implementation analysis and summaries of ambitions and legislation at the European level. It enlists many best practices with implementation strategies on CSUD and analyzes the related trends. Eight CSUD fields were analyzed within the questionnaires.

D.4.1 lacks an explanation of the questionnaire and the methodology of why they selected those particular questions if it covers all related elements to analysis within the scope of objectives of this project.

Referring to **T.4.2**, "Analysis of industry sector needs for green jobs and climate-smart solutions in WB", an online survey of several institutions, including companies, NGOs, and stakeholders, was conducted to assess the need for green jobs and climate-smart solutions in D.4.2. The results contain extensive statistical analytics, partially on three national levels and a joint analysis of the WB region, followed by conclusions and recommendations.

It elaborates on the methodology very briefly with details on the selection of survey groups, structure, timing, and ethics aspects. Still, it lacks a survey development method to explain how the questions were selected, whether there is an evaluation methodology for analyzing answers, and whether all relevant objectives are included in the survey.

Task **T.4.3**, "Development of a technological platform for sharing experiences in CSUD," was completed, and the platform was activated.

The work package **WP5**, "Implementation of modernized courses and platform," started with Task **T.5.1**, "Implementation of developed university courses", and Universities have developed modernized courses and adopted curricula approved by National authorities.

The remaining tasks, **T.5.2**, Implementation of students' internships, and **T.5.4**, Self-evaluation of implemented university courses, are planned for the second half of the project realization. Task **T.5.3**, "Posting of acquired best-practice examples in CSUD," has already started with realization.

The tasks specified in work package **WP6**, "Quality assurance and monitoring," are ongoing, and Task **T.6.1**, "Development of the Quality and Assurance Plan," has been completely realized. D.6.1 refers to quality assessment and assurance activities based on qualitative data (i.e., meeting the specified deadlines, achieving targets and indicators) and quantitative data (i.e., answers to questionnaires and reports). D.6.1 describes all responsibilities and related tasks, meetings, and reporting. The internal evaluation process refers to all responsibilities and describes all relevant tasks to manage and review the quality of deliverables and analyze the events. Since the existing plan contains only a review of deliverables and events, I suggest including a section to describe how the project management, related tasks, and activities will be reviewed, referring to obstacles, reaching deadlines, and matching the realization with the plan.

Tasks **T.6.2**, "Regular Quality Assurance Committee meetings", Task **T.6.3**, "External evaluation of the project", and Task **T.6.4**, "Inter-project coaching," are ongoing.

Activities within work package WP7, "Impact and Dissemination," are ongoing or scheduled for the next period. Task T.7.1 Creation of the Dissemination & Exploitation Plan is completed. D.7.1. is the dissemination and exploitation plan to ensure that the project's results and outputs can be widely disseminated to the designated and appropriate target groups and communities, including the dissemination, communication, and exploitation strategy. It comprehensively elaborates objectives and identifies target groups, key messages, and communication channels (website, social networks, flyers, brochures, posters, videos, newsletters, magazine articles, and events). The project has established a visual identification,

including logos, brand colors, templates for documents, brochures, reports, presentations, agendas, attendance lists, and other promo materials. Besides the dissemination, the communication activities are detailed for activities performed before, during, and after the project. The responsibilities for all work package activities are specified correspondingly with specified leaders. D.7.1 specifies relevant monitoring and evaluation activities, monitoring and reporting tools, and evaluation criteria with quantitative and quality indicators and presents short-, medium-, and long-term impact indicators. Although D.7.1 contains a section on sustainability and continuation referring to the main objectives, outcomes, applied strategies, and required resources.

Tasks T.7.2, "Development of project website and promotional materials", and T.7.3, "Roundtables with the non-academic sector to promote environmentally-conscious urban development", T.7.4, "Promotion of using emission reduction approaches and low-carbon technologies", T.7.5, "Workshop for promoting green job opportunities in urban development", have started recently and are ongoing. The Task T.7.6 Final project conference is scheduled for the last project months.

# Overall project relevance

Overall, the project results are relevant to the modern trends in CSUD and correspond to the planned activities and deliveries within the project proposal without prolongation or any reported modification. The proposed goals are likely to be achieved considering the realization of the activities by the first half of the project duration.

# Overall project efficiency

The reported activities and deliveries have been realized by transforming the project inputs into efficient outputs of the expected quality and on time. Minor remarks are recommended to improve the quality of the deliveries. Not all the results and execution details of realized activities were initially reported to support overall evaluation. However, after initial correspondence, all these reports were delivered with sufficient evidence of ongoing and realized project activities, ensuring a high level of project management. Besides the minor remarks, I cannot observe severe deviations.

# Overall project effectivity

The specific objective 1) to promote emission reduction approaches and low-carbon technologies is too early to be evaluated. Considering the realization of the remaining specific objectives to 2) Implement an interactive web-based knowledge platform, 3) Improve the teaching staff's competencies and skills, 4) Modernize university courses about climate-smart urban development, and 5) technological preconditions with new equipment, we observe the realization of related activities that will provide fruitful impact.

Not all project outputs and corresponding documents are linked from the expected location on the work package or activity web pages. Considering the remarks in this report, I recommend updating the website, adding a list of deliverables and project outputs, and making those not restricted publicly available.

# Overall project impact

As specified in the proposal, I think the project will significantly impact. Taking preventive and corrective measures for identified minor remarks and recommendations will improve the quality of the corresponding outputs. At the time of this review, it is too early to estimate the impact level in departments, faculty, and the university and the impact relating to the broader

project objective. However, the realized activities and deliveries so far ensure its great potential.

# **Project sustainability**

Sustainability instruments are installed to ensure the continuation of project activities after its completion. Most of the presented documents include all relevant items for transparent project execution and dissemination of the available material. However, some elements are missing, and the **project website** needs an update:

- News and events contain details on who, where, when, title, or short abstract. However, some events lack proper data, such as the Team-based training, Nis, to be held 14-16 2023.
- Present the promo material.
- Press releases lack short explanations (who published, where, when, title) not just providing a link.
- Workshops and meetings are covered with essential info. I suggest updating with performance and self-evaluation data, such as the number of participants, links to the meeting agenda, self-evaluation quality score, training/meeting conclusions, etc.
- Media lacks a short explanation (who published, where, when, title) not just providing a link.
- To increase the website's visibility, include a list of deliverables and update it with the latest information. Currently, only the list of activities and their status is available.

### Recommendations with minor remarks

## 1) Incomplete risk assessment

- assess the identified risks according to their consequences, probability of occurring, and impact (risk level), and evaluate them as mild, moderate, significant, or critical, as specified in the project management guide procedure and Table 14.
- report identification and realization of preventive or corrective measures to be taken upon identifying nonconformities or recommendations. For example, provide a report on activities performed for minor remarks and recommendations in this evaluation report.

#### 2) Identification of WB regional issues (D.2.1)

• develop a summary joint comparable analysis of the WB region, an analysis of a common issue, and an overview of the initiatives to cope with identified problems to avoid considering the D.2.1 be a set of three different national reports without a common summary that explains what was not done and why not.

## 3) Availability of training material (D3.3)

• provide the training material that is publicly available for further training and increase interested parties' knowledge and skills.

### 4) Missing details in the methodology

• D.4.1 lacks an explanation of the questionnaire and the methodology of why they selected those particular questions if it covers all related elements to analysis within the scope of objectives of this project.

- D.4.2 lacks a survey development method to explain how the questions were selected, whether there is an evaluation methodology for analyzing answers, and whether all relevant objectives are included in the survey.
- 5) Updating the Quality and Assurance Plan (D.6.1)
  - Include a section on a method to evaluate the project management activities, related tasks, and activities, referring to obstacles, reaching deadlines, and matching the realization with the plan and project objectives.

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- 6) Minor formatting errors in documents D.1.2, D.6.1, and D.7.1:
  - Some documents include "Error! Reference source not found!"
  - Some tables have the same caption.

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