

Align architectural education with the paramount energy and climate goals of the green transition in Europe



## Newsletter 1 - April 2023

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### SPOTLIGHT ON

Launched on October 1st, 2022, the project “Introducing Sustainability and Energy Efficiency Principles in Architectural Education: Towards Designing Climate Neutral and Inclusive Buildings” (INCEPT) is being implemented under the Erasmus+ Programme of the EU. The project strives for climate-neutrality and inclusiveness of the built environment by incorporating sustainable and energy efficient building concepts into architectural education with knowledge and skills at building design stage.

The project consortium consists of the Department of Architecture at New Bulgarian University (NBU), the Faculty of Urban Planning at the University of Architecture and Urbanism “Ion Mincu” (UAUIM), and the Faculty of Architecture at the University of Zagreb (UNIGZ).

This first newsletter of the INCEPT Project provides a glimpse into the project progress and activities. It highlights both online and in-person meetings that have taken place, the development of several key deliverables, and provides an overview of the contributions of the project partners and the roles they play in advancing the project goals. Finally, the newsletter offers a preview of upcoming activities and milestones that the project will be working towards in the coming months.

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### INCEPT PROJECT OVERVIEW

- Project title:** Introducing Sustainability and Energy Efficiency Principles in Architectural Education: Towards Designing Climate Neutral and Inclusive Buildings (INCEPT)
- Funding:** European Union’s Erasmus+ Programme, Call KA220-HED Cooperation partnerships in higher education, Grant Agreement No. 2022-1-BG01-KA220-HED-000089080
- Timeframe:** 1 October 2022 - 30 September 2025
- Contractors:** New Bulgarian University, Bulgaria (Coordinator); University of Architecture and Urbanism “Ion Mincu”, Romania; University of Zagreb, Croatia
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## FORWARD BY THE PROJECT COORDINATOR

I am delighted to introduce the INCEPT Project and provide some background information on its objectives and scope. The climate crisis is upon us and a pro-active and decisive shift in the pedagogical paradigm is required to accelerate the transition to a net-zero carbon society. The INCEPT Project will seek to empower architecture students to embrace sustainable design and develop fundamental green skills. The project aspires to prepare the leaders of the green transformation of the built environment through a well-balanced blended approach dovetailing key theoretical concepts with experience-based training.

This project will envisage to elaborate guidance and resources for architecture schools to move rapidly towards a new climate education, in order to provide students with the critical and necessary skills, knowledge and capability to respond to the climate and ecological crisis with proven sustainable and regenerative design propositions. We have assembled a team of experts with diverse skills and experiences to ensure that the project is implemented successfully and delivers the desired outcomes.

In this introduction, I will outline the main objectives of the project and the approach we will be taking to achieve them. The INCEPT Project aims to create, validate and implement a curriculum on sustainable architecture within the Master of Architecture programmes at the participating universities. This will help build critical knowledge and green skills founded on key low-energy and sustainable building design principles. A Climate Neutral Building Design Atelier will be established to test in practice low-and zero-energy design concepts and tools as part of an experience-based training in a "living lab" ecosystem.

The strategic outcome of the INCEPT Project is the closer alignment between the architectural education and the strategic energy and climate goals of the green transition in Europe. This will enable the delivery of an innovative future-oriented curriculum to effectively address the need for a climate neutral, resilient and inclusive built environment.

Overall, we are committed to ensuring that this project is completed on time, within budget, and to the highest standards of quality. We believe that the project results will have a positive impact on the architectural education at our universities, as well as on the wider professional community, and we look forward to sharing our progress with you as we move forward.

Georgi Georgiev, PhD, Architect, Professor  
On behalf of New Bulgarian University

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## INCEPT PROJECT CONSORTIUM

The Department of Architecture at New Bulgarian University is responsible for the overall project coordination. NBU is the leader of Work Package 2 "Creation of Compendium on the green transition to affordable and clean energy in buildings, sustainable cities and communities, and climate resilience for architecture students" and Work Package 5 "Dissemination and setting up digital educational university platforms to increase the impact of INCEPT Project". The NBU project team consists of Prof. PhD Arch. Georgi Georgiev (Project Lead on behalf of NBU), Lect. PhD Eleonora Gaydarova (Project Coordinator), Lect. PhD Ing. Zdravko Georgiev, and Assist. Prof. PhD Arch. Peter Petrov.

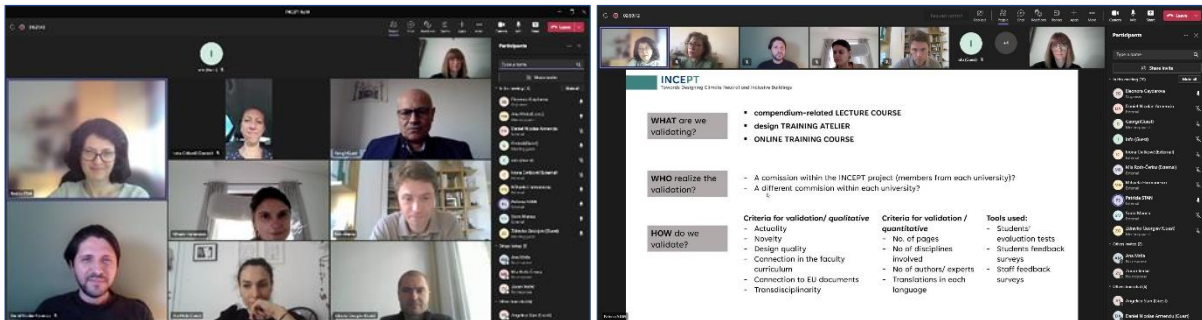
The Faculty of Urban Planning at the University of Architecture and Urbanism "Ion Mincu" is the leader of Work Package 4 "Validation and implementation of the produced educational curriculum within the Master of Architecture programmes". UAUIM will assess the effects of implementing the new educational curriculum and promote the incorporation of sustainability and energy efficiency principles into architectural education in Romania. The UAUIM project team consists of Prof. PhD Arch. Habil. Urb. Angelica Stan (Project Lead on behalf of UAUIM), Assoc. Prof. Arch. Mihaela Hărmănescu, Senior Lect. PhD Arch. Daniel N. Armenciuc, and Assist. Prof. PhD Arch. Urb. Sorin Manea.

The Faculty of Architecture at the University of Zagreb is the leader of Work Package 3 “Creation of Climate Neutral Building Design Atelier for architecture students”. The UNIZG project team consists of Assoc. Prof. PhD Mia Roth-Čerina (Project Lead on behalf of UNIZG), Ivona Cvitković, Assoc. Prof. PhD Arch. Ana Mrđa, and Prof. PhD Arch. Zoran Veršić.

The Consortium is working collaboratively towards achieving the main goal of the INCEPT Project – aligning architectural education with the energy and climate goals of the green transition in Europe.

## INCEPT PROJECT MEETINGS

The Kick-off Meeting was held on November 9<sup>th</sup>, 2022, online. The purpose of the one-day meeting was for the Consortium to define the short-term path, covering the first reporting period of the project, i.e. until September 30, 2023. The Consortium decided that the Management Committee of the INCEPT Project shall consist of the following members: Georgi Georgiev (NBU Project Team Lead), Eleonora Gaydarova (NBU, Project Coordinator), Angelica Stan (UAUIM Project Team Lead), Daniel Armenciu (UAUIM, Quality Manager), Mia Roth-Čerina (UNIZG Project Team Lead) and Ivona Cvitković (UNIZG, Communication Manager).



The first of three live Consortium meetings was held at UniArt Gallery, New Bulgarian University in Sofia on February 20<sup>th</sup> and 21<sup>st</sup>, 2023. During this meeting, the project partners discussed their progress on creating the Compendium on the green transition to affordable and clean energy in buildings, sustainable cities, and climate resilience for architecture students, as well as the Climate Neutral Building Design Atelier for architecture students.



The next Consortium meeting is scheduled to be held at the University of Architecture and Urbanism "Ion Mincu" in Bucharest on September 11<sup>th</sup> and 12<sup>th</sup>, 2023. During the meeting, the project partners will use this opportunity to discuss the preparation of the initial versions of IO1 and IO3, as well as the planning for the implementation and validation project phase.

## INCEPT PROJECT DELIVERABLES

The **Deliverable 2.1 “Report on the concept, methodology and structure of the Compendium”** has been prepared in accordance with the approved project proposal and the discussions held between the partners during the Consortium meeting in Sofia.

The report emphasizes on the understanding that the overarching goal of the Compendium is to provide knowledge to architecture students about the sustainability and energy efficiency principles during the entire lifecycle of buildings, including both operational and embodied carbon and advance climate-smart, energy-efficient and inclusive building design that inspires and empowers the next generation of architects to create a more sustainable built environment. The role of this deliverable in the overall project is critical, articulating and essentially generating the entire proposed research and education process in line with the concept and main objectives of the INCEPT Project. The structure of the Compendium is based on identifying the main knowledge types and associated thematic cores/modules that align with the most relevant and up-to-date information on the topic. The essential body of the Compendium is comprised of several thematic modules, each with their own sub-themes and specific topics. These modules include Built Environment and Sustainability, Integrating Landscape to Built Environment Sustainability, Eco-design Basics (Low Tech Sustainable Building Design), Integrated Sustainable Building Design, Sustainable Building Management, and Measuring/Evaluation of Sustainable Architecture. The Compendium concept and structure are designed to meet the needs and expectations of the compendium related Lecture course for architecture students, the online training course on sustainable architecture and the Climate Neutral Building Design Atelier.

The report details the methodology employed, including identification, mapping and research, synthesis and direction, developing and design, and draft and review. Additionally, it includes an elaborated information matrix of the Compendium, which provides a comprehensive overview of the subject matter. The report also outlines the technical requirements necessary for the development of the Compendium and the associated Lecture course. In addition, the report establishes the distribution of responsibilities among the project partners and outlines the timeline for the preparation of the initial version of IO1 for the INCEPT Project. In the upcoming period, the partner university teams will focus on developing and submitting the assigned Compendium modules and module-related lectures in preparation for the implementation and validation project phase.

The **Deliverable 3.1 “Report on the concept and structure of the design training atelier”** has been prepared in accordance with the approved project proposal and the discussions held between the partners during the Consortium meeting in Sofia. This work package is aimed at fulfilling one of the main specific objectives of the project, namely to train architecture students how to design more energy-efficient, less carbon-intensive and more sustainable buildings in the wider multi-facet urban context allowing room for creativity and aesthetic decisions. Furthermore, this work package builds the foundation of knowledge, digital and green sectorial skills that are needed to achieve the main objective of the project, which is to create, implement and validate a curriculum on sustainable architecture within the Master of Architecture programmes at the participating universities that will provide an understanding of the contemporary challenges facing the architectural profession in addressing the challenges of climate change and the critical contribution of buildings to the green transition to low or zero carbon emissions. Reaching UN’s sustainable development goals is particularly strongly related to the built environment and is increasingly becoming an integral part of the education of architects and accreditation processes for universities. New EU agendas stress the importance of approaching these goals through an integrated approach bridging sustainability, inclusion and aesthetics, moving away from a ‘siloed’ statement of goals which prevailed in previous agendas favouring technological, performance-based evaluations. These are expressed in the New European Bauhaus platform which provides a basis for articulating a new direction in designing the built environment, and which should subsequently find its match in the education of future architects. The

placement of these goals relies strongly on the architectural design studio. The studio is pivotal in architectural education, providing a space for teaching and researching through design, developing collaboration skills and testing goals through studio content. While the application of NEB and UN SDG goals will depend on an adequate problem-based approach, tailored solutions will depend on personal elective trajectories fed and facilitated by the modules described in the INCEPT compendium.

A basic structure for the design atelier was proposed in a structure that matches existing curricula at partner schools, placed within studios and matching elective courses, describing ECTS distribution, personnel, content focus etc. This content is strongly linked to the content of the compendium, shaping a holistic approach to testing methodologies aimed at reaching the described goals.

The **Deliverable 5.1 “Report on the dissemination and communication strategy of INCEPT Project”** summarizes the strategies and tools that will be used to implement the Communication and Dissemination (C&D) work of the project, including setting objectives and targets, identifying key messages, and developing a project communication plan. Additionally, the report outlines the strategies for disseminating the project results to a wider audience.

The Graphic Design Laboratory at New Bulgarian University was responsible for developing the visual identity of the INCEPT Project including the main colours and logo.

The partners have created dedicated sections on their university websites that are solely focused on the INCEPT Project, in accordance with the approved project proposal.

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## VISIT US ONLINE

For New Bulgarian University: <https://architecture.nbu.bg/bg/proekti>

For University of Architecture and Urbanism “Ion Mincu”: <https://www.uauim.ro/cercetare/incept/>

For University of Zagreb: <https://arhitekt.hr/hr/istrazivanje/istrazivacki-projekti/>

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