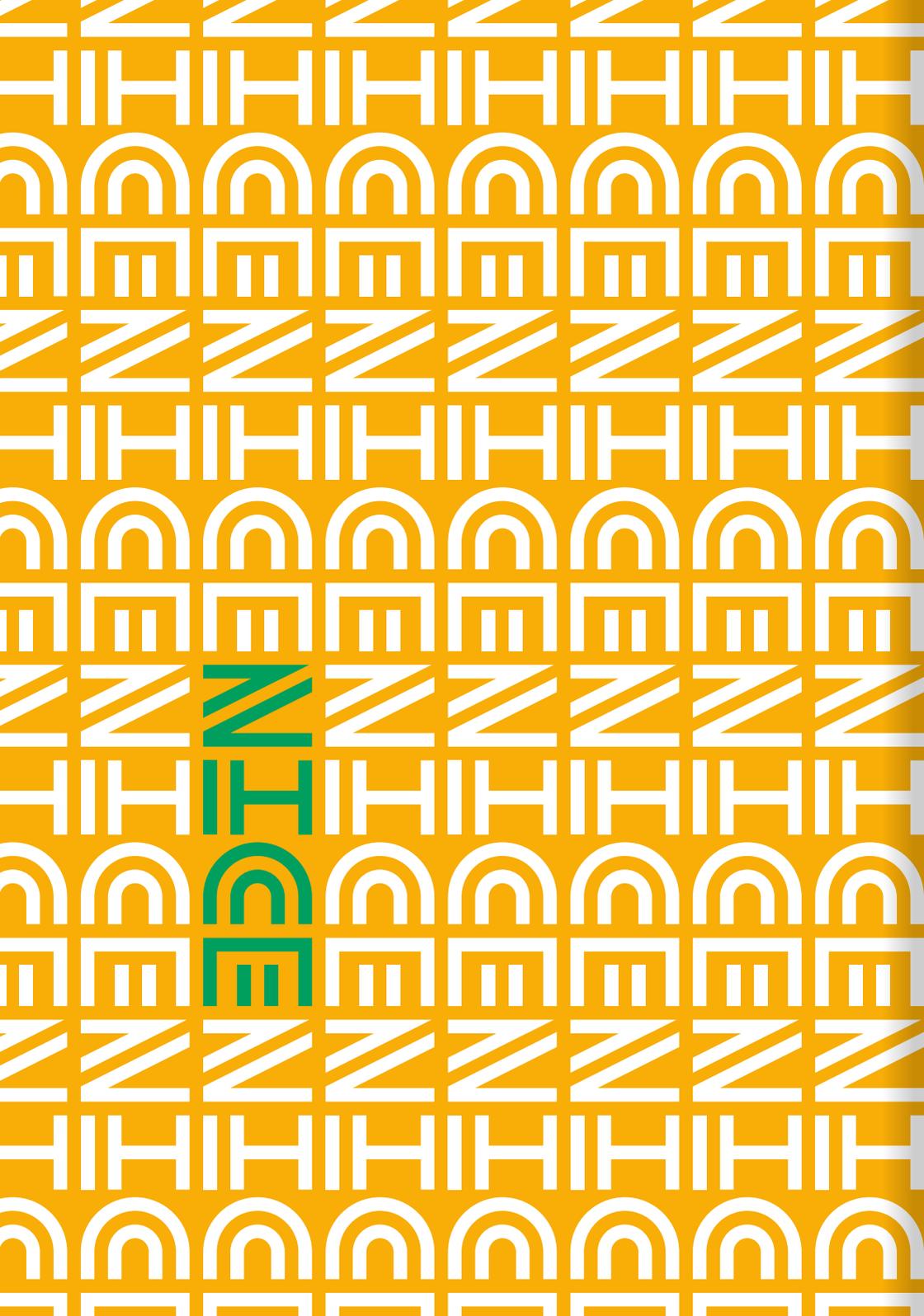




Co-creation for more circular cities at the Budapest University of Technology and Economics (BME)

A new university course, „Sustainable Business Model Design“, was also introduced as part of the initiative for the 2024/25 Spring semester.



05 Perex

06 The pilot idea

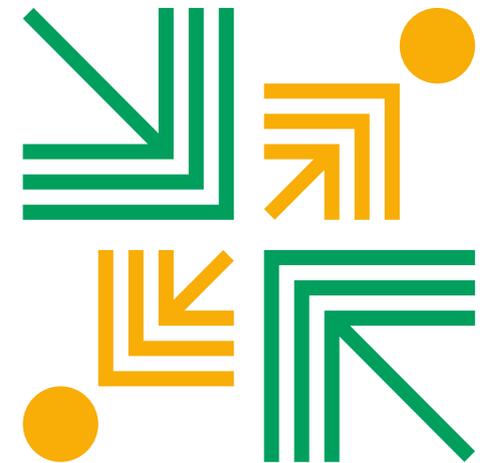
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Perex

The „Co-creation for More Circular Cities“ pilot at the Budapest University of Technology and Economics (BME) focused on connecting urban living with circular lifestyles.

This pilot activity featured a variety of educational and co-creative elements, including an awareness-raising workshop at the European Researchers' Night in 2024, specialized workshops during the Intensive Seminar Programme at the BME Faculty of Economic and Social Sciences (2024), and presentations at various conferences.

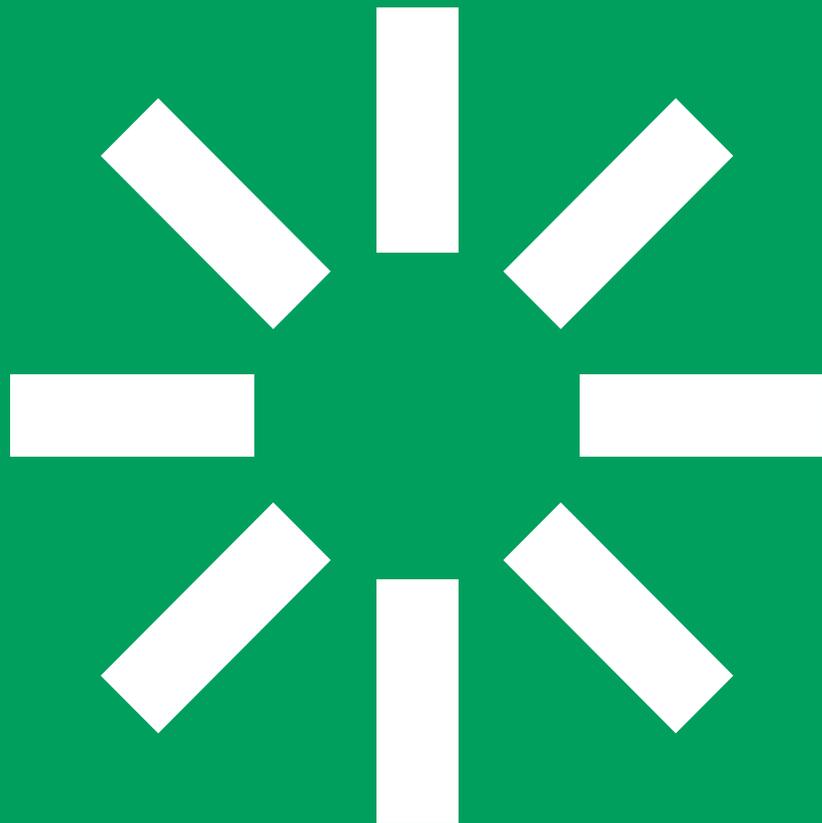
A new university course, „Sustainable Business Model Design“, was also introduced as part of the initiative for the 2024/25 Spring semester. Through these diverse activities, we successfully engaged a broad network of stakeholders.



Picture 1: View from the Gellért Hill – University Campuses

Picture 2: Tandem review

THE PILOT IDEA



The BME pilot action aimed to engage students, university staff and citizens in circular lifestyles, moving them toward active participation in the circular society. The university specifically focused on connecting urban living with sustainable water consumption and sought to shift the emphasis in circular initiatives from the common focus on recycling to the crucial „refuse“ and „reduce“ value retention options.

BME, as a central academic institution, is ideally positioned to act as a hub for multi-stakeholder collaborations, linking local municipalities, businesses, NGOs, and citizens.

A key objective of the pilot was to boost cooperation between these diverse groups and promote sustainable lifestyles among students through an interdisciplinary „learning by doing“ approach.

The practical aspects of this multi-stakeholder engagement were directly integrated into the new university course, underscoring the commitment to embedding circular principles in the curriculum. The pilot featured a variety of educational and co-creative elements between September 2024 and September 2025.



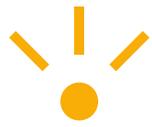
How it started



The needs analysis during autumn 2023, which comprised of a workshop, focus group discussions, and interviews with university students, yielded key insights into perspectives on sustainable living and the circular economy.

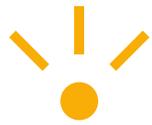
Picture 3: Workshop with University Students (October 2023)





Institutional Challenges and Infrastructure Gaps

The analysis revealed that while participants had indirectly encountered sustainability topics in their coursework, they were largely unaware of specific, existing sustainability practices at BME. Beyond the curriculum, participants stressed the university's crucial role in modelling good practices. While existing resources, such as repair garages and student associations, were noted, their focus on new sustainability efforts and overall accessibility were deemed insufficient. Furthermore, participants acknowledged that their understanding of sustainability was heavily influenced by changes in their living circumstances, and that media largely shaped their grasp of the causes and effects of circular lifestyles.



Communication and Consumption

Students generally agreed that both BME and the Újbuda district offer good access to circular services. However, they stressed the need for better communication to promote these opportunities effectively at both the university and district levels. Students are actively seeking guidance on prioritizing circular lifestyle choices, including reducing energy consumption, selecting eco-friendly travel options, reviewing eating habits, and making sustainable choices regarding clothing and durable goods.

Picture 3: Workshop with University Students (October 2023)

Picture 4: Participants at the Focus Group Discussion (October 2023)





 A critical finding was the observation that while many apps and solutions ostensibly support the circular economy, some stimulate further consumption.

Consequently, all participants concurred on the critical importance of reviewing consumption patterns and ultimately reducing consumption for a successful transition to a sustainable lifestyle. 

Actionable Ideas

The needs analysis participants shared several other specific ideas for promoting the circular economy among BME students and stakeholders, including:

- Conducting seminars on circular business models.
- Collaboration with local government and municipality on projects.
- Enhancing awareness among citizens via social media and the university website.

The comprehensive inputs gathered from the interviews and workshops were sufficient to clearly define the target groups' needs. While a dominant share of the pilot activity's objectives derived from BME's educational mandate, supporting modules focused on the enhancement of citizen science were also incorporated.

Implementation PHASE



The location of the pilot activity was the university campus, situated in Újbuda, **Budapest's** most populous district. The district offers a diverse range of circular economy initiatives. The colleagues of the BME Department of Environmental Economics and Sustainability introduced various integrated educational and co-creative activities.



Public awareness & engagement

An interactive workshop, „Is it possible to live sustainably in the city?“ at the European Researchers' Night (2024), reached 34 participants with presentations and games on topics like personal carbon footprint reduction and local circular offers.

The pilot closing event reached 21 participants and has been organized at the European Researchers' Night (2025) with students' presentations based on their experiences about the University Living Lab, accompanied by a plant & book swap party.

Picture 6: Workshop at the European Researchers' Night (September 2024)

Picture 7: Workshop back-to-back with the Pilot Closing Event at the European Researchers' Night (September 2025)

Picture 8: Book & Plant Swap during the Pilot Closing Event at the European Researchers' Night (September 2025)





Targeted student workshops

The Intensive Seminar Programme hosted workshops for 34 master students, received positive feedback from introducing the NiCE project, the 9R model, good practices enabling circular lifestyle and covering carbon/water footprints.



Conferences

During the XXII. Annual Meeting of the Hungarian Regional Science Association (October 2024) Mariann Szabó held a presentation about the NiCE project in the session entitled „Resilience and vulnerability – Socio-economic impacts of crises and crises“, in Szeged. In her presentation „Crisis-resistant business models – cities in the service of sustainable lifestyles” she presented the good examples identified during the implementation of the project, which remained operational despite the COVID-19 crisis to support sustainable consumption and lifestyles.

On November 8, 2024, the BME Department of Environmental Economics and Sustainability celebrated its 35th anniversary. The day-long event reviewed the Department’s history, achievements, current activities, and future opportunities, including its training programs, talent management, and national and international research projects.

Dr. Mariann Szabó, scientific coordinator of the NiCE Interreg Central Europe project, delivered a presentation titled „Circular economy lifestyles – launch of the BME Pilot project”.



Picture 9,10: Q&A and Participants at the Workshop (October 2024)

Picture 11: Presentation during the XXII. Annual Meeting of the Hungarian Regional Science Association (October 2024)

Picture 12: Conference Participants. Source: Berci Geberle (October 2024)



Hands-on Learning

The core of the initiative was the „Sustainable Business Model Design“ course, introduced in the 2024/25 Spring semester. This course formed the University Living Lab (ULL), where 8 students from various fields collaborated directly with partners like the „Ligeti“ Package Free Shop and the Educational and Reuse Center in Budapest XVIII. district. Their activity was supported by the Board of Local Stakeholders.

Students conducted site visits, developed circular business model proposals, and engaged in mid-term and final co-creation workshops, demonstrating the value of the ULL methodology in fostering skills and behavioural change.

The pilot successfully engaged a broad network, including students, citizens, businesses, alumni, and senior university management, with particular emphasis on involving alumni and partner companies in the local stakeholder board. The pilot action concluded after one year, reinforcing BME's commitment to embedding circular economy principles through practical engagement and robust partnerships.



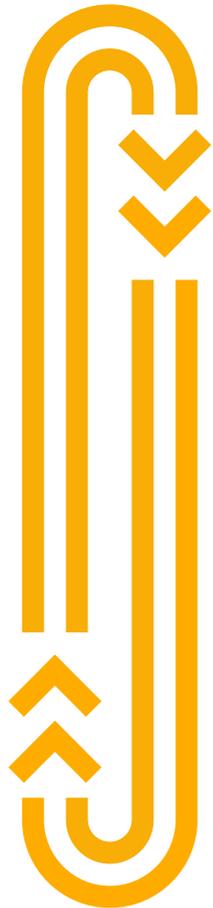
Picture 13,14: The Board of Local Stakeholders and the First University Living Lab Session (January & February 2025)

Picture 15: Final Project Presentations (May 2025)

Picture 16: Closing University Living Lab (June 2025)



Outcomes and learnings



The BME pilot activity, focusing on educational and awareness-raising programs, generated various lessons highlighting effective strategies for mainstreaming circular lifestyles within a university and urban environment.



The transformative power of experiential learning

The University Living Lab (ULL) model, implemented within the framework of the „Sustainable Business Model Design“ course proved to be the most effective mechanism for knowledge transfer and skill development. Moving beyond theory, student groups collaborated directly with real-world partners (e.g., “Ligeti” Package Free Shop, and the Educational and Reuse Center in Budapest XVIII. district) to identify challenges and co-design innovative circular business solutions.

Picture 17: University Living Lab – Introduction of partners (February 2025)



Key findings on ULL:

- **Deeper impact, higher investment:** This hands-on, co-creative approach delivered profound understanding and behavioural change, but it required substantially greater energy from the organizing team (extensive coordination, meticulous planning) and high commitment from participating students.
- **Targeted promotion:** An important lesson learned is that while the ULL was effective, it engaged students with entrepreneurial interest. Future promotion must explicitly emphasize the practical and entrepreneurial nature of the course.
- **Depth vs. scale:** Due to the intensive faculty supervision and partner engagement required, the ULL model prioritizes depth of engagement for a small number of students rather than scalability across the broader university population.



Bridging the credibility and perception gap

The needs analysis revealed a significant gap between institutional rhetoric and operational reality.

- **Institutional alignment is critical:** stakeholders view BME as an ideal „focal point“ for multi-stakeholder cooperation, but they concurrently pointed out that the university’s daily operations do not adequately exemplify sustainability. Discrepancies exist in areas like waste management, buffets, and infrastructure.

Picture 18, 19: Book & plant swap during the pilot closing event at the European Researchers' Night (September 2025)



- **Addressing unawareness:** Students acknowledged discussing sustainability in coursework but were largely unaware of BME's specific, existing practices. Proactive, consistent communication about current efforts is essential.
- **Advocating for infrastructure:** to encourage sustainable commuting, the university must address perceived shortcomings by advocating for infrastructure like changing rooms and showers for cyclists, matching the standards of modern office buildings.



Strategy for sustained and gradual change

Behavioural change, particularly around consumption, is a long-term strategy that requires diverse, targeted communication and low-barrier entry points.

- **Small steps drive adoption of new customs:** discussions underscored that adopting a circular lifestyle is a gradual process best supported by promoting „small steps“ to avoid disillusionment. Awareness campaigns must be realistic, encouraging incremental changes rather than immediate, radical overhauls.
- **Diverse engagement:** reaching diverse audiences (public, experts, students) is paramount and requires tailoring content — from interactive applications (which proved highly effective, such as the [Beeco mobile application](#)) to in-depth expert discussions.

Picture 20, 21: Participants at the Intensive Seminar Workshop (October 2024)



- **Consumption reduction is paramount:** participants agreed that the central challenge remains the need to review consumption patterns and ultimately reduce consumption, noting that many popular apps and solutions marketed as „circular“ often still stimulate further purchases.

- **Future pilot activities should prioritize high-intensity, interdisciplinary learning (like the ULL) for deep impact, while simultaneously developing robust, continuous communication strategies that actively address stakeholder perception gaps and advocate for internal operational alignment.**

Further Information



NiCE Project Websites

Project pilot action blogposts at the BME Faculty of Economic and Social Sciences (GTK):

<https://www.gtk.bme.hu/en/research/from-niche-to-centre-city-centres-as-places-of-circular-lifestyles-nice/project-pilot-action-blogposts/>

BME Department of Environmental Economics and Sustainability:

<http://kornygazd.bme.hu/en>

NiCE project website, pilot actions:

<https://www.interreg-central.eu/projects/nice/?tab=outputs>

BME Department of Environmental Economics and Sustainability on LinkedIn:

<https://www.linkedin.com/company/102206994/admin/dashboard/>

Knowledge Platform: <https://circularlifestyle.eu/>

Online Seminar 2:

https://www.youtube.com/watch?v=EA_N7N27wJo&t=2437s

Pilot video: <https://www.youtube.com/watch?v=m2ESe5kGpKQ>



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CENTRAL EUROPE



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NiCE





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