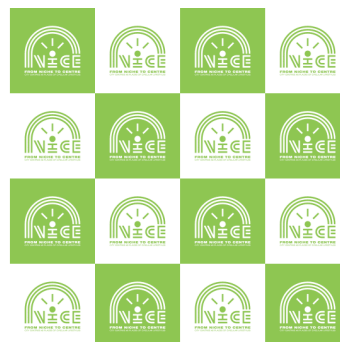




# Annex 4.1.1: Workshop for Student Groups on Circular Lifestyles

Part of D.3.1.2 Educational materials

Version 1, 02.02.2026





# 1 INTRODUCTION

## 1.1 Why focusing on circular lifestyles in cities?

The transition toward a circular economy (CE) has traditionally been viewed through a techno-centric lens, focusing on industrial symbiosis, waste management systems, and innovative manufacturing. However, as the 2030 Agenda for Sustainable Development and the New Leipzig Charter suggest, the true “transformative power of cities” lies at the intersection of structural offers and individual behaviors.



As noted by UNCTAD, with over 57% of the world’s population living in urban areas (a figure expected to rise to nearly 84% in Europe by 2050) cities are the primary stages of human activity. Drawing on Partzsch’s (1964) model of social geographical functions, we see that a city is defined by seven core elements: work, living, services, education, transport, leisure, and community. Because cities embody this complex “interaction system”, they act as incubators for lifestyle trends. When circularity is integrated into these seven functions, it ceases to be a policy abstract and becomes a social norm. For example, when “leisure” and “living” are designed around zero-waste movements or sharing economies, the circular transition gains cultural momentum that industrial policy alone cannot achieve.





A critical argument for addressing lifestyle is the duality found in SDG 12: Sustainable Consumption and Production. Sustainability cannot be achieved by focusing solely on the production side (businesses) or the consumption side (citizens) in isolation:

- The Behavioral Side: Citizens share ideas and adopt new trends like sustainable consumption.
- The Structural Side: For these behaviors to take root, a “sufficient portfolio of alternative offers” is required.

If a city provides the infrastructure for repair, reuse, and sharing (the “offer”), but the citizens’ lifestyle remains rooted in linear “take-make-dispose” habits, the infrastructure will fail. Conversely, a willing public cannot act without access to circular services. Addressing lifestyle ensures that demand for circularity meets the supply of sustainable innovations. Historically, cities have been associated with “weak sustainability”, often depleting natural capital to build human constructs. By focusing on circular lifestyles, cities can reverse this trend. The New Leipzig Charter highlights that the “green city” requires fundamental changes to how we live to ensure the sustainable use of resources.

Transitioning to a circular lifestyle reduces the pressure on the environment by lowering carbon emissions and waste at the source, namely the household and individual level. This shifts the urban identity from a resource-hungry machine to a self-sustaining ecosystem. Perhaps the most compelling reason to focus on lifestyle is the current research and policy gap. As Korsunova, Horn, and Vainio (2021) point out, while governments and businesses are recognized as key players for the transition, the significant changes to ways of living remain largely ignored in circular economy strategies. By putting urban circular lifestyles at the forefront, we address the root cause of resource depletion rather than just managing its symptoms.

## **1.2 Workshops for citizens and student groups developed by BME in the framework of NiCE**

During the implementation of the NiCE project, the Department of Environmental Economics and Sustainability (Budapest University of Technology and Economics, BME) organized different events to mainstream circular lifestyles within the framework of European Researchers' Night and the Intensive Seminar Programme of the BME Faculty of Economic and Social Sciences. This educational material was developed based on these workshops and has already been tested with university students and citizens from various age groups.





### 3 WORKSHOP PROGRAMME DESCRIPTION



#### Part I: Introduction & Self-Reflection

- **Greetings and introduction of moderators:** Formal welcome, setting a positive tone, and briefly explaining the expertise of the moderators and the context of the NiCE project.
- **Discussion of the outline & Q&A:** A brief walkthrough of the day's timeline and goals to manage expectations and answer logistical questions.
- **Individual "Shield of Life" activity:** A creative icebreaker where participants draw a personal "shield" representing their values and current habits. This serves as a visual baseline for their personal identity before discussing sustainability. A template is provided in the Appendices section.







## Part II: Collaborative definitions & theory

- **Formation of teams:** Dividing the 24 participants into two balanced teams to encourage diverse perspectives during the deep-dive session.
- **Teamwork & poster co-creation:** Teams discuss their individual questionnaire answers and find common ground. They will use post-its and flipcharts to visually map out: 1. what a circular economy means to them, 2. how it connects to their specific everyday lives and the activities of people in their community.



- **Gallery walk (plenary observation):** Teams rotate to view the other group's poster. This allows participants to compare ideas, identify shared challenges, and spark new thoughts.





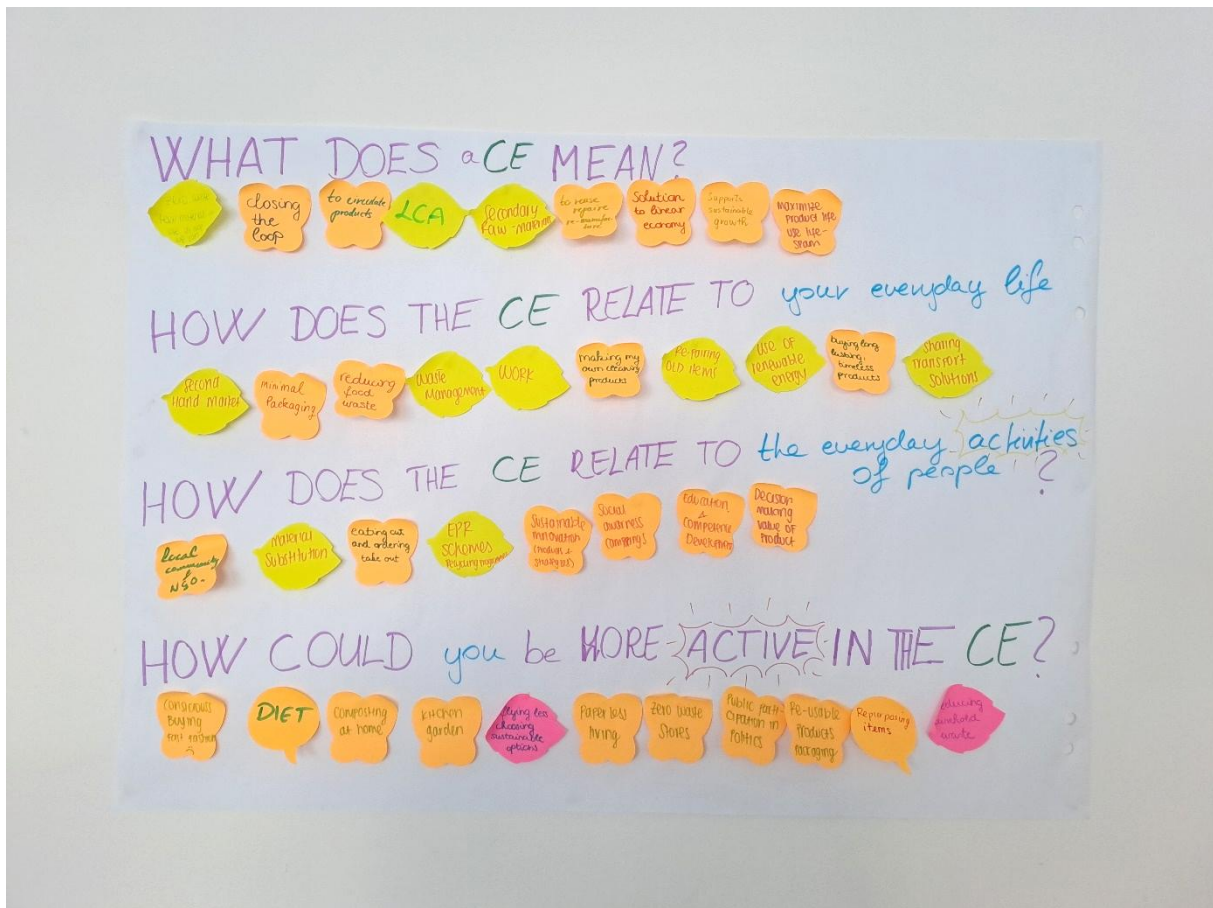
- **Scientific presentation on circular lifestyles:** the moderators provide a grounded, evidence-based lecture. Key topics are: Carbon Footprint, Water Footprint, Transition to Circular Economy of Urban Areas and Communities, Big Points for Sustainable Consumption as proposed by the German Environment Agency.

Key topics and visuals	Further info, references													
<p><b>What's Part of Your Carbon Footprint?</b></p> <p>The infographic shows a footprint shape divided into sections for different activities and resources: Transport, Food &amp; Household, Electricity, Water, Gas, Waste, Phone &amp; Internet, and Recycling. Each section contains icons representing the activity or resource.</p>	<p><a href="https://decode6.org/articles/what-is-a-carbon-footprint/">https://decode6.org/articles/what-is-a-carbon-footprint/</a></p>													
<p>The <b>Water Footprint Network</b> has developed a so called “Product Gallery” helping people to learn about which products are more water intensive, which are less and how polluting their production is.</p> <p><b>WATER FOOTPRINT</b></p> <p>HOW MUCH WATER GOES INTO THE PRODUCTS WE USE</p> <table border="1"> <tr> <td>1608 LITRES/KG (Bread)</td> <td>132 LITRES PER 125 ML CUP (Coffee)</td> </tr> <tr> <td>3178 LITRES/KG (Cheese)</td> <td>255 LITRES PER 250 ML GLASS (Beer)</td> </tr> <tr> <td>17196 LITRES/KG (Cocoa)</td> <td>109 LITRES FOR A LEMON GLASS (Lemonade)</td> </tr> <tr> <td>4325 LITRES/KG (Chicken)</td> <td>27 LITRES PER 250ML CUP (Tea)</td> </tr> <tr> <td>1222 LITRES/KG (Lentils)</td> <td>1259 LITRES PER PIZZA (Pizza)</td> </tr> </table> <p>GLOBAL AVERAGE</p> <p>WATER USAGE IN EUROPE (IN KM<sup>3</sup> PER YEAR)</p> <table border="1"> <tr> <td>61 KM<sup>3</sup> (COMMERCIAL USE: HOMES, OFFICES ETC.)</td> <td>204 KM<sup>3</sup> (INDUSTRY)</td> <td>109 KM<sup>3</sup> (AGRICULTURE)</td> </tr> </table> <p>60% AMOUNT OF WATER IN HUMAN ADULT</p> <p>+7 BILLION GLOBAL POPULATION</p> <p>2.4 BILLION* PEOPLE WITH NO ACCESS TO CLEAN WATER</p>	1608 LITRES/KG (Bread)	132 LITRES PER 125 ML CUP (Coffee)	3178 LITRES/KG (Cheese)	255 LITRES PER 250 ML GLASS (Beer)	17196 LITRES/KG (Cocoa)	109 LITRES FOR A LEMON GLASS (Lemonade)	4325 LITRES/KG (Chicken)	27 LITRES PER 250ML CUP (Tea)	1222 LITRES/KG (Lentils)	1259 LITRES PER PIZZA (Pizza)	61 KM <sup>3</sup> (COMMERCIAL USE: HOMES, OFFICES ETC.)	204 KM <sup>3</sup> (INDUSTRY)	109 KM <sup>3</sup> (AGRICULTURE)	<p><a href="https://www.waterfootprint.org/resources/interactive-tools/product-gallery/">https://www.waterfootprint.org/resources/interactive-tools/product-gallery/</a></p>
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<p><b>Mapping options for closing resource loops with circular lifestyles - application of place-based analysis</b></p> <p>Options for closing resource loops with circular lifestyles</p> <ul style="list-style-type: none"> <li>Shortest Loops: RR-R3 (Refuse, Reduce, Resell/Reuse)</li> <li>Medium Long Loops: RR-R6 (Refurbish, Remanufacture, Repurpose)</li> <li>Long Loops: RR-R7 (Recycling)</li> </ul> <p>Circular economy citizenship - decision of inhabitants</p> <p>Portfolio of circular lifestyles enablers in urban areas</p> <p>Szabó, M., Gimkiewicz, J., Cappellaro, F. et al. Transition to circular economy of urban areas and communities with special attention to lifestyles. <i>Discov Sustain</i> 5, 482 (2024). <a href="https://doi.org/10.1007/s43621-024-00726-0">https://doi.org/10.1007/s43621-024-00726-0</a></p>	<p>Szabó, M., Gimkiewicz, J., Cappellaro, F. <i>et al.</i> Transition to circular economy of urban areas and communities with special attention to lifestyles. <i>Discov Sustain</i> 5, 482 (2024). <a href="https://doi.org/10.1007/s43621-024-00726-0">https://doi.org/10.1007/s43621-024-00726-0</a></p>													
<p>The German Environment Agency (Umweltbundesamt) proposes a “<b>Concept of Big Points for sustainable consumption</b>” by: 1. Saving shower head, 2. Avoiding flying, 3. Insulated living space, 4. Plant-orientated diet, 5. Green electricity, 6. Driving less by car, 7. Conscious consumption.</p>	<p>More info (in German language) at: <a href="https://www.umweltbundesamt.de/themen/wirtschaft-konsum/konsum-umwelt-zentrale-handlungsfelder#manahmen">https://www.umweltbundesamt.de/themen/wirtschaft-konsum/konsum-umwelt-zentrale-handlungsfelder#manahmen</a></p>													



### Part III: From Theory to Action

- Presentation of Good Practices:** A showcase of inspiring, real-world examples of circularity (e.g., repair cafés, resource centres, new business models) from local and international contexts. It is highly recommended to present the practices in uniform, easy-to-understandable way. Selection of relevant cases is the task of the moderators. To get ideas, the [NiCE Virtual Exhibition of Good Practices](#) can be an excellent source. The description of the Good Practices are added to the Appendices section.
- Team discussion – adoption & strategy:** The teams re-discuss the final question: “How could you be more active in the circular economy?”. They brainstorm specific, actionable steps to integrate the Good Practices into their own routines.
- Sharing results, wrap-up, and closing:** Teams present their findings. The moderators summarize the key takeaways, thank the participants.





## 4 REFERENCES

- Decode 6 Decoding Carbon and Ecosystem Services. What Is a Carbon Footprint? (April 4, 2023). <https://decode6.org/articles/what-is-a-carbon-footprint/>
- European Commission. Urban agenda for the EU. [https://commission.europa.eu/eu-regional-and-urban-development/topics/cities-and-urban-development/urban-agenda-eu\\_en](https://commission.europa.eu/eu-regional-and-urban-development/topics/cities-and-urban-development/urban-agenda-eu_en)
- European Commission. Urbanisation in Europe. [https://knowledge4policy.ec.europa.eu/foresight/topic/continuing-urbanisation/urbanisation-europe\\_en](https://knowledge4policy.ec.europa.eu/foresight/topic/continuing-urbanisation/urbanisation-europe_en)
- German Environment Agency [Umweltbundesamt]. Consumption and the environment: Key areas for action [Konsum und Umwelt: Zentrale Handlungsfelder], in German language. <https://www.umweltbundesamt.de/themen/wirtschaft-konsum/konsum-umwelt-zentrale-handlungsfelder#bedarfsfelder>
- Keserű, I. Commuting patterns of secondary school students in the functional urban region of Budapest. Hungarian Geographical Bulletin 2013;62(2):197–219.
- Korsunova, A, Horn, S, Vainio, A. Understanding circular economy in everyday life: Perceptions of young adults in the Finnish context. Sustainable Production and Consumption 2021; <https://doi.org/10.1016/j.spc.2020.12.038>
- Shahzabeen, A., Ghosh, A., Pandey, B., Shekhar, S. Circular Economy and Sustainable Production and Consumption. In Singh P, Yadav A, Chowdhury I, Singh RP, editors. Green Circular Economy. Springer eBooks; 2023. pp. 43-65. [https://doi.org/10.1007/978-3-031-40304-0\\_3](https://doi.org/10.1007/978-3-031-40304-0_3)
- Szabó, M., Gimkiewicz, J., Cappellaro, F. et al. Transition to circular economy of urban areas and communities with special attention to lifestyles. Discov Sustain 5, 482 (2024). <https://doi.org/10.1007/s43621-024-00726-0>
- United Nations. Transforming our World: The 2030 Agenda for Sustainable Development. 2015. <https://sdgs.un.org/sites/default/files/publications/21252030%20Agenda%20for%20Sustainable%20Development%20web.pdf>
- United Nations. UNCTAD Handbook of Statistics 2023. 2023. [https://unctad.org/system/files/official-document/tdstat48\\_en.pdf](https://unctad.org/system/files/official-document/tdstat48_en.pdf)
- Water Footprint Network. Product Gallery. <https://www.waterfootprint.org/resources/interactive-tools/product-gallery/>

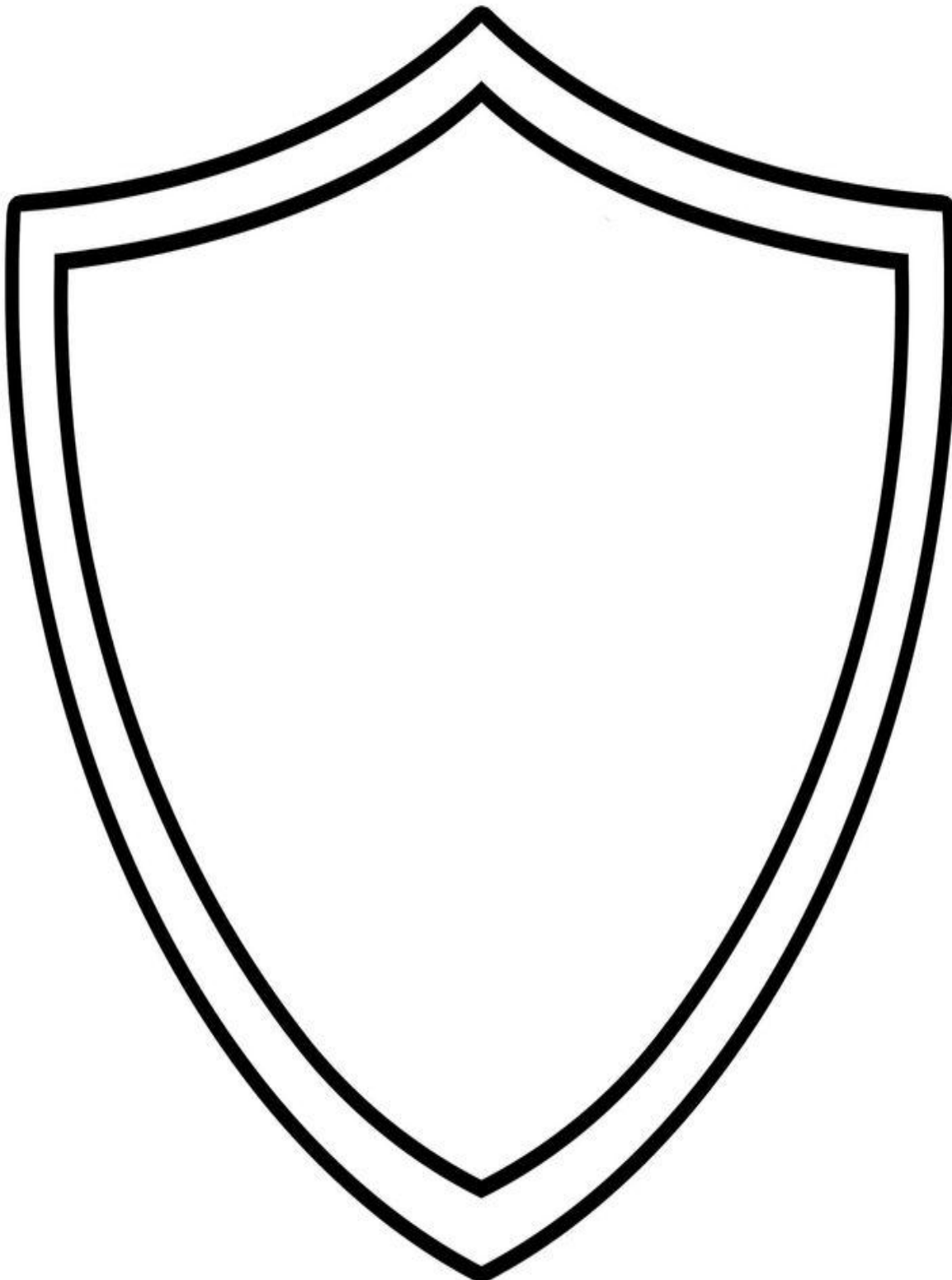


- Weigel, O, Zimmermann, M. The new Leipzig Charter: From strategy to implementation. In Brears RC, editor. The Palgrave Encyclopedia of Urban and Regional Futures. Cham: Springer; 2022. pp. 1167–1174. [https://doi.org/10.1007/978-3-030-87745-3\\_223](https://doi.org/10.1007/978-3-030-87745-3_223)
- More info (in German language) at: <https://www.umweltbundesamt.de/themen/wirtschaft-konsum/konsum-umwelt-zentrale-handlungsfelder#manahmen>



## 5 APPENDICES

### 5.1 The Shield





## 5.2 NiCE Virtual Exhibition of Good Practices

Country	City	Title	Short Summary	Website URL
AT	Graz	Sustainable in Graz	Facilitates sustainable living/business with info on resource reuse and daily engagement.	<a href="http://nachhaltig-in-graz.at">nachhaltig-in-graz.at</a>
AT	Vienna	Unwasted	Produces jams and syrups from surplus produce to save up to 100,000 kg of food per season.	<a href="http://unverschwendet.at">unverschwendet.at</a>
AT	Vienna	BauKarussell	First provider of recycling-oriented deconstruction for large-volume building components.	<a href="http://baukarussell.at">baukarussell.at</a>
AT	St. Veit	ecolets	Produces organic fertilizer pellets from sheep's wool to conserve soil and nutrients.	<a href="http://ecolets.at">ecolets.at</a>
CZ	Jaroměř	Recyupcy	Upcycles and recycles materials for artistic and useful projects like bicycle building.	<a href="http://recyupcy.cz">recyupcy.cz</a>
CZ	Liberec	Angle Grinder Workshop	NGO running a shared furniture workshop and reuse center in an old water tower.	<a href="http://diinazauhlovacky.cz">diinazauhlovacky.cz</a>
CZ	Prague	From Room to Room	Refurbishes old furniture for resale and operates a dedicated reuse center.	<a href="http://zpokojedopokoje.cz">zpokojedopokoje.cz</a>
DE	Ahaus	aufHaus	A 1,200 sqm facility merging online commerce with local upcycling and craft shopping.	<a href="http://ahaus.app">ahaus.app</a>
DE	Berlin	NochMALL	Berlin's first second-hand department store promoting repair cafés and upcycling events.	<a href="http://bsr.de">bsr.de</a>
DE	Cottbus	Toolbot	App-based automatic lending station for tools to encourage community sharing.	<a href="https://bundespreis-ecodesign.de/en/winners/toolbot">https://bundespreis-ecodesign.de/en/winners/toolbot</a>
DE	Hannover	Project Platzhalter	Transforms advertising spaces into meeting places for co-creation and idea exchange.	<a href="http://projekt-platzhalter.de">projekt-platzhalter.de</a>
HU	Budapest	FKF Reuse Centres	Municipal centers focusing on second-hand sales and educational activities on reuse.	<a href="https://mohubudapest.hu/szemleletformaloes-ujrahasznalati-kozpontok-educacios-tevekenyseg">https://mohubudapest.hu/szemleletformaloes-ujrahasznalati-kozpontok-educacios-tevekenyseg</a>
HU	Budapest	Impact Box	Curated gift boxes promoting zero-waste and local upcycling by disadvantaged groups.	<a href="http://impactbox.net">impactbox.net</a>
HU	Budapest	Ligeti Shop	Package-free shop spreading zero-waste shopping culture and domestic product consumption.	<a href="http://csomagolasmentes.hu">csomagolasmentes.hu</a>
HU	Budapest	this is Redy	Produces award-winning period underwear as a substitute for disposable products.	<a href="http://thisisredy.com">thisisredy.com</a>
IT	Bologna	Serra Aquaponica	Uses aquaponics to raise awareness about water-saving food production and resource conservation.	<a href="http://aquaponicdesign.it">aquaponicdesign.it</a>
IT	Bologna	RECIProCo	Living lab using education and awareness to co-ideate municipal water management proposals.	<a href="http://reciproco.enea.it">reciproco.enea.it</a>



Country	City	Title	Short Summary	Website URL
IT	Bologna	Terracini in Transition	University pathway enhancing sustainability and resilience awareness among students and staff.	<a href="https://site.unibo.it/multicampus-sostenibile/it/promuovere-la-sostenibilita/terracini-in-transizione">https://site.unibo.it/multicampus-sostenibile/it/promuovere-la-sostenibilita/terracini-in-transizione</a>
IT	Bologna	Porto Verde	Citizen-led redevelopment of parks to foster social inclusion and environmental sustainability.	<a href="fondazioneinnovazioneurbana.it">fondazioneinnovazioneurbana.it</a>
IT	Bologna	Blue Footprint	Strategies for water resource resilience, including groundwater reuse and night fountain closure.	<a href="gruppohera.it">gruppohera.it</a>
PL	Gdynia	Urban Resilience Tool	Methodology for measuring climate resilience across social, economic, and management sectors.	<a href="gdynia.pl">gdynia.pl</a>
PL	Warsaw	Clothes to Give Away	Platform reselling donated clothes to fund user-selected charitable organizations.	<a href="ubraniadooddania.pl">ubraniadooddania.pl</a>
PL	Warsaw	Wawashare	Municipal service for sharing goods, skills, time, and space among residents for free.	<a href="biznes.um.warszawa.pl">biznes.um.warszawa.pl</a>
PL	Warsaw	You. Make. It!	Makerspaces and Fablabs focused on digital fabrication, craftsmanship, and community building.	<a href="robisz.to">robisz.to</a>
PL	Wroclaw	From Field to Table	Links restaurants and local producers to promote sustainable, circular consumption events.	<a href="https://convention.wroclaw.pl/2023/11/30/od-pola-na-wroclawski-stol/">https://convention.wroclaw.pl/2023/11/30/od-pola-na-wroclawski-stol/</a>
SI	Ptuj	Ptuj Reuse Centre	Collects and repairs waste furniture and household products for reuse and resale.	<a href="https://www.js-ptuj.si/odpadki/center-ponovne-rabe">https://www.js-ptuj.si/odpadki/center-ponovne-rabe</a>
SI	Sl. Konjice	CPU Slovenian Cavalry	Sells creatively repaired textiles and household goods to promote artistic circular retail.	<a href="cpu-reuse.com">cpu-reuse.com</a>
SK	Košice	Dorka Bags	Transforms advertising banners into fashion accessories while providing employment for those in need.	<a href="dorkabags.sk">dorkabags.sk</a>
SK	Košice	Come to the Yard	Revitalizes neighborhoods through gardening and cultural events to increase civic engagement.	<a href="podnadvor.sk">podnadvor.sk</a>
SK	Košice	RezKE	Organizes clothing swaps and education to shape consumer behavior toward circular lifecycles.	<a href="rezke.sk">rezke.sk</a>