

Minor Circular Cities: Mission Zero Waste Amsterdam

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Sustainable and Responsible Management:
A decade of Integrating Knowledge and Creating Societal Impact through Innovation and Entrepreneurship

Communication RMER: (ID# leave in blank please)
Title: Minor Circular Amsterdam: Mission Zero Waste

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ABSTRACT

This communication aims to provide a framework on how to integrate the concept of Circular Economy (CE) when addressing real-life urban challenges such as resource scarcity, greenhouse gas emissions, pollution, waste, and high consumerism (Williams, 2019), through delivery of courses to students of various educational backgrounds. As part of the mission of Amsterdam University of Applied Sciences (AUAS) to be at the forefront of promoting sustainability through education and research, the Faculties of Technology and of Business and Economics joined forces to launch a new minor namely Circular Amsterdam: Mission Zero Waste. This minor focuses on the challenges and opportunities towards the circular transition in Amsterdam as well as in other European cities, by applying system level of thinking and real-life practical cases.

CE model is a shift from the traditional linear “take, make, and dispose” way of doing business, to promoting circularity of the waste product through the 3R principles (reduce, reuse, recycle), which is nowadays extended to using 9R principles (0-Refuse, 1-Rethink, 2-Reduce, 3-Reuse, 4-Repair, 5-Refurbish, 6-Remanufacture, 7-Repurpose, 8-Recycle, and 9-Recover) (Potting et al., 2017). Transitioning to CE model needs intervention and multidisciplinary approach at different levels, hence requiring systems level of thinking. This means that technical, organizational, economic, behavioral, and regulatory aspects should be taken into account when designing business models, policies, or framework on CE. In the case of the minor, a system change including the challenges and opportunities needed in the cities, will be approached from different perspectives. In order to do this, the minor requires collaboration on a real-life problem using multiple backgrounds of students that include



technical, economic, creative and social domains, as well as various stakeholders such as businesses, policy makers, and experts in circular economy.

This minor will provide in-depth knowledge and skills based on its two tracks. The first track is called Circular Design & Technology. It focuses on the role of technology in CE, technological design, material use, production, use of circular resources in production, and impact analysis. The second track is called Circular Governance & Management. This track focuses on viable business case development, circular supply chain management, finance, regulations, entrepreneurship, and human capital. The focus of this communication will be the second track.

Multidisciplinary teams each consisting of approximately four students will work on different projects. Examples of real-world, practical cases related to Circular Governance & Management track include: (1) development of business models addressing resource shortages and waste in the cities, (2) influencing consumer mindset when it comes to recycling and use of circular materials and products, (3) development of financially viable circular businesses, with due consideration of different instruments such as traditional bank loans, green/social bonds and loans, crowdfunding, or impact investing, and (4) tracking and reporting their sustainability performance with the voluntary use of sustainability metrics and reporting standards in order to better manage their risk and attract capital. These projects are linked to research expertises in AUAS. The course activities include (guest) lectures, workshops, co-creation sessions, excursions, presentations and peer reviews. The learning goals in the Circular Governance & Management track include being able to:

1. Understand the foundations of CE and theory of change;
2. Apply systems thinking to show how different interventions, such as consumer products, logistics models, business models or policy designs, can affect the transition from the existing linear to a CE model;
3. Design an intervention, such as a product, logistic concept, business model, communication strategy or policy design supporting the CE, using students' backgrounds, ambitions and interests;
4. Understand the financial and regulatory framework affecting the management and governance of (financially viable) circular businesses, including government incentives;
5. Evaluate the economic, environmental and social impacts of developed intervention design on the city and its environment;
6. Provide justification of students' design according to sustainability performance indicators;
7. Collaborate with stakeholders in a multidisciplinary team; and
8. Present, defend and communicate the results in English.

Contributes to SDGs:

SDG 2 (Ending hunger, achieving food security, improving nutrition and promoting sustainable agriculture), SDG 11 (Make cities and human settlements inclusive, safe, resilient and sustainable), SDG 13 (Take urgent action to combat climate change and its impact).



KEYWORDS

Circular Amsterdam, Circular cities, Circular Economy, Systems thinking, Multidisciplinary, Sustainability

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