Maastricht University

UM Sustainability Roadmap 2030

The result of a cross-faculty working group of devoted staff and students

Introduction

Human-induced socioecological sustainability crises pose a severe threat to all levels of society. Recognising this, many higher education institutions are reducing their environmental footprint and paying greater attention to sustainability through their research and education. Sustainability is a wide-ranging theme and comes with many different definitions. For this roadmap, we will use a broad sustainability definition: 'the pursuit of long-term human wellbeing and protection of the planet and its natural resources.'

Sustainability should lie at the core of institutes of higher education. Instilling sustainability principles in students empowers them to address global challenges, from climate change to social inequality. Scientific research can offer innovative solutions, inform decisions and drive the changes needed to create a sustainable world. Moreover, universities can lead by example when it comes to their own environmental and social footprints, reducing their impact on the planet through sustainable practices while inspiring broader change. Fundamentally, the valorisation through these practices represents a central theme that pervades universities. Nonetheless, institutional and policy barriers combined with external challenges have long stymied structural change.

The 'UM Sustainability Roadmap 2030' is the result of a cross-faculty working group composed of various UM community members with expertise in different areas of sustainability. This working group reviewed UM's sustainability efforts over the last ten years, analysed the sustainability plans of 12 other universities, identified key challenges and opportunities for UM in its sustainability strategy, and proposed promising focus areas for research, education, operations and impact. With the UM Strategic Programme 2022-2026 in mind, the resulting roadmap sets out the sustainability ambitions and objectives that will help the UM community to progress towards a sustainable future in the years to come.

UM Sustainability Ambitions

UM can contribute to a sustainable world by using research to catalyse innovation, education to foster knowledge dissemination and skills development, and sustainable university operations to set a good example. UM's foundation in Problem Based Learning empowers students to actively engage with sustainability issues, cultivates critical thinking and promotes a sense of responsibility to drive change. Additionally, UM has great potential for interdisciplinary research in sustainability science. With current and prospective students, alumni, staff, regulators, consumers, businesses and other stakeholders placing greater emphasis on sustainability, a sustainability strategy is a prerequisite to UM's long-term success. Sustainability therefore needs to be an integral part of our core activities of research, education and operations, not an add-on or afterthought. Overarching ambitions, along with specific priorities for research, education and operations, will contribute to knowledge valorisation and maximise our impact on a local, regional and international level. To this end, we need to be transparent about our ambitions and the challenges we encounter. We also need to involve the entire UM community in our endeavours.

At present, the Sustainable Development Goals (SDGs) form the guiding principle for UM's strategy. While the SDGs are a major step forward for the United Nations, they are not specific enough to underpin the sustainability ambitions of an organisation such as UM. Moreover, the SDGs risk serving as catch-all phrases that can legitimise incremental change at the expense of structural transformation. We have therefore identified specific sustainability themes that are essential for this transformation, and to which UM can contribute through its education, research and operations.

UM's sustainability strategy focuses on three interconnected themes that tap into the key societal challenges identified by the European Union:

Climate

Climate change caused by rising global carbon emissions is one of the biggest challenges facing society today. The climate crisis has a negative impact on economic systems, widens social disparities and has drastic environmental effects that threaten the future of humanity. The Paris Agreement signed in 2015 aims to limit global warming to below 2 (but ideally 1.5) degrees Celsius above pre-industrial levels. Higher temperatures can lead to more frequent and intense heatwaves, rising sea levels, extreme weather events and damaged ecosystems. The agreement emphasises the need for long-term sustainability and the transition to a low-carbon, resilient economy.

Circularity

Circularity is a key approach for sustainable development as it reduces the overall material footprint of society. It entails a shift from the linear economic structure of 'take-make-consume-dispose' to a circular model, where materials and products are reused for as long as feasible in closed-loop systems. As an overarching approach, circularity addresses environmental, economic and social challenges by promoting the efficient use of resources, renewable energy and regenerative approaches, increasing the longevity of product life cycles and reducing waste. All this helps to limit greenhouse-gas emissions and other harmful environmental effects of the current economic model.

Community

For a university and a society to be sustainable, the wellbeing of students, staff and citizens is vital. Only people can bring about the necessary changes within UM and other organisations. The UM community is a hub of creativity and innovation that can brainstorm and implement innovative solutions to sustainability challenges. Sustainability cannot do without such collective action: individuals, businesses and institutions must collaborate to achieve common goals. Moreover, it is in sustainable communities that people thrive and want to live and work—now and in the future.

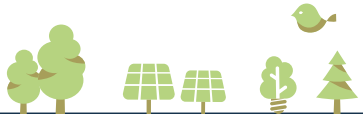
Based on these interwoven themes, UM's roadmap comprises narratives that set out our aspirations (destination) and the routes by which we intend to reach them (pathways).

UM Sustainability Ambitions

Ambition 1:

In 2025, sustainability is considered in decision making at all levels of the university: individual members, departments, institutes, faculties, support units and governance bodies.

- Every line manager shares joint responsibility for sustainability. It is translated into key performance indicators (KPIs) and embedded in an ongoing, UM-wide dialogue about our priorities in achieving a more sustainable society.
- Support is available at different levels, providing expertise and assistance in assessing the potential consequences of decisions in terms of environmental and social sustainability (similar to financial assessments).
- UM staff are trained to incorporate sustainability issues in their teaching, research and grant applications; managers to achieve the sustainability KPIs and handle trade-offs. Ideally, this is implemented by means of training courses, followed by the setup of Communities of Practice (of deans, school directors, etc.).
- Monitoring and reporting systems are established, using explicit indicators for sustainability performance on core activities (education, research and operations).



Ambition 2:

UM ensures that its operations are climate neutral by 2035, educates its students to be agents of change in combating climate change, and fosters research that accelerates the transition to a fossil-free society. Additionally, UM enhances the resilience of its community and infrastructure with regard to the disruptions caused by climate change.

- UM works actively with its suppliers to reduce the greenhouse-gas emissions of the products and services it purchases. An explicit KPI is established indicating that suppliers without a contractual commitment to this goal are to be phased out.
- UM engages with stakeholders in society to develop and implement a plan to enhance resilience in the face of climate disruption.
- The aim of reducing the climate footprint of UM's operations is actively integrated into research and education, supported by SUM2030 seed funding, and embedded in research support units and education institutes.
- Climate Fresk workshops are offered to all UM members to help identify and make use of opportunities to reduce the university's climate footprint. (Climate Fresk is a collaborative game aiming to raise awareness of climate change)
- UM research and education help to accelerate the transition to a fossil-free society. Open dialogue is encouraged on the form of this transition. The university engages with partners in society that contribute to the energy transition, and does not collaborate with those that hinder it or deny its urgency.
- In line with the Global Citizenship for Sustainable Development framework, all UM graduates have followed at least one course that explicitly addresses how they can act as change agents to reduce the climate footprint of their organisation. The development of this mindset is further supported by activities of the student community network facilitated by the UM Green Office.

Ambition 3:

UM has established a circular campus by 2035, bringing together sustainability, innovation and community in a 'living lab' that models and advances the principles of the circular economy in education, research and operations.

- UM works actively with its suppliers to eliminate waste from its operations and the products and services it purchases. Operations, products and services are brought into line with circularity principles through material efficiencies, product recycling, product longevity (including, where appropriate, upgradability, repairability and reusability), renewable energy and regenerative practices. An explicit KPI is established indicating that suppliers without a contractual commitment to this goal are to be phased out.
- The aims of reducing the material footprint of UM's operations and aligning with circularity principles are actively integrated into research and education, supported by SUM2030 seed funding, and embedded in research support units and education institutes.
- UM develops and rolls out a 'Circularity Fresk' workshop to increase awareness of circularity and make use of opportunities to reduce the university's climate footprint.
- UM seeks to help accelerate the transition to a circular society through its research and education. It is a place where the urgency and shape of this transition is freely debated, which includes the need to reduce levels of consumption and degrowth. It engages with societal partners that actively and concretely contribute to this acceleration. It does not collaborate with partners that explicitly impede this transition or deny its urgency.
- All UM graduates have followed at least one course that explicitly addresses how they can act as change agents to reduce the material footprint of their organisation. The development of this mindset is further supported by activities of the student community network facilitated by the UM Green Office.

Ambition 4:

By 2030, UM has a green, healthy and thriving campus that prioritises the wellbeing of its staff and students, provides a dynamic and inclusive study and work environment, and fosters a vibrant UM community with an emphasis on connection, collaboration and a sense of belonging.

- Healthy, sustainable and appealing facilities and spaces, both indoor and outdoor, support the wellbeing of our students and staff. This includes 'greening' the campus: incorporating nature into public spaces by creating green walls and roofs, building nesting areas for bats, sparrows and the like, planting trees, transforming grassy areas into flower meadows and so on.
- The campus is conducive to movement, promoting physical activity as well as the concept of a sound mind in a healthy body.
- The university has formed a strong and sustainable bond with the region by addressing local sustainability challenges and connecting with the wider community.
- Affordable, healthy and sustainable catering services are offered that meet the diverse needs and lifestyles of our international community.
- University-wide discussions are organised to empower students, staff and citizens to jointly address sustainability issues such as the transition to a fossil-free society.

Goals for Research, Education and Operations

On the basis of our four ambitions, we have established a number of goals to be achieved by 2030 in the areas of research, education and operations. Together, these ambitions and goals will help us to make a positive impact on society.

Research

Many researchers across UM faculties are already engaging with issues broadly related to sustainability. A significant portion of these deal with specific challenges related to the core themes of climate, circularity and community. Their research covers diverse topics, ranging from sustainable food, sustainable cities and social entrepreneurship to critiques of capitalism. To bring sustainability research at UM to the next level, we have defined four key objectives: 1) Foster the transition to a sustainable society; 2) Establish three inter-faculty research communities on Climate, Circularity and Community, in which staff and students collaborate with government agencies, companies and other stakeholders; 3) Develop a publicly accessible overview of all UM-related sustainability research and projects; and 4) Create a central sustainability platform that links external partners to UM activities. These objectives will clarify and improve our sustainability research profile, offer insight into ongoing research related to sustainability, facilitate connection between researchers and students from different faculties on sustainability themes and, ultimately, improve the impact of our research. To make research practices more sustainable, UM should implement green laboratory practices and include this aim in its goals for sustainable operations.

Education

UM strives to educate students as responsible global citizens and critical thinkers who can make a meaningful contribution to society and act—locally and globally—as agents of positive change. This is also the aim of the Global Citizenship for Sustainable Development framework, and given the unprecedented and increasingly urgent challenges of environmental change, resource scarcity and social inequality, it is more sorely needed than ever before. To give concrete shape to our efforts to educate change agents for sustainability, we have established four objectives: 1) Infuse sustainability principles into all UM programmes, in line with the Global Citizenship for Sustainable Development framework; 2) Facilitate staff in acquiring the knowledge and skills that will inspire students to become change agents; 3) Stimulate sustainability initiatives involving staff and students on the UM campus; and 4) Improve the environmental and social sustainability of our education.

Operations

The overarching sustainability ambitions as set out above and the Facility Services Strategic Development Plan 2022–26 offer concrete guidelines to enhance the sustainability of UM's operations, which underpin our core tasks of education and research. The next step is to collect the necessary information to set medium-term targets in terms of energy consumption, events, food and catering, Green Labs, ICT, mobility, real estate, procurement, digitalisation and waste management and water management. Progress towards these targets will need to be monitored and reported.

Impact

Our sustainability ambitions can only be achieved if they are broadly supported by the UM community and integrated into the core principles and daily practices across all three pillars of research, education and operations. Ultimately, they should lead to a positive impact for UM, the region and the world. UM actively collaborates with businesses, startups, educational institutions, networks and nonprofits to connect students with meaningful societal challenges. On the Brightlands campuses, educators and researchers create dynamic environments where theoretical knowledge can be translated into practical applications.

Organisation and implementation

The UM Sustainability Roadmap 2030 offers clear guidelines on how to move forward. While steps still need to be taken to create a UM-wide green network structure and to develop capacity at the central and faculty levels, the following organisational elements are already in place.

Sustainability Supervisory Board (SSB): The SSB advises the UM Executive Board and Management Team on strategic topics relating to sustainability. It also establishes connections between programmes and promotes synergy and complementarity, while preventing overlap and fragmentation in sustainability initiatives.

Sustainable UM 2030 (SUM2030): The Taskforce SUM2030 raises awareness of and promotes engagement with the sustainability ambitions. It includes researchers, teachers, faculty liaisons and policymakers, and collaborates with students via the Green Office.

UM Green Office: A one-stop destination for all student sustainability initiatives at UM.

Academic Lead for Sustainability: The scientific expert responsible for developing and spearheading an institution-wide sustainability strategy.

Sustainability Officer: The linking pin between sustainability programmes, responsible for developing strategy, maintaining an overview, establishing connections, reporting and monitoring.

Members of the cross-faculty working group
Constantijn van Aartsen (FOL)
Vuslat Asku (FOL)
Nancy Bocken (SBE)
Frank Boons (SBE)
Harro van Lente (FASoS)
Wouter van Marken Lichtenbelt (FHML)
Pim Martens (FSE)
Pascal Stevens (FIN)
Yvonne van der Meer (FSE) (chair)
Jeroen Warnier (AA)