



GET-AHEAD

Advancing Environmental Sustainability
in the Higher Education Sector

CONFERENCE BOOKLET
October 20 - 21, 2025 in Cork, Ireland

About GET-AHED

GET-AHED (Green Education and Transition – A Higher Education Digital Buddy) is an Erasmus+ funded initiative aimed at supporting and empowering higher education institutions (HEIs) in their green transition. The project has been dedicated to developing the online platform „University Greening Toolbox“ designed to support HEIs in improving their environmental sustainability performance strategically. The platform includes three core tools:

- (1) **Green Self-Assessment Toolkit** – a process-oriented environmental sustainability self-assessment tool that was developed based on a participatory and whole-university approach;
- (2) **Green Training** – a training tool offering up-to-date learning materials for students, staff, and leadership to strengthen institutional sustainability efforts;
- (3) **Green Case Studies** – a collection of good practices and resources mainly focused on energy efficiency in HEIs.

As the GET-AHED project approaches its culmination, we are pleased to hold a conference dedicated to showcasing the platform’s comprehensive components and the methodologies underpinning each element. This event aims to bring together researchers and practitioners to explore and discuss the advancements facilitated by GET-AHED.



Conference Tracks

- Sustainability education & behavioural change
- Strategic implementation & assessment
- Sustainability communication & applied practice

GET-AHED Consortium

WPZ Research GmbH, Austria (WPZ Research)

Universidade de Aveiro, Portugal (UAveiro)

Munster Technological University, Ireland (MTU Hincks and MTU TEL)

University of Ruse "Angel Kanchev", Bulgaria (URAK)

FH Vorarlberg – University of Applied Sciences, Austria (FHV)

Conference Organising Committee

Verena Régent, Egor Burda, Susanne Fröhlich & Roi Avila (WPZ Research)

Rebecca Robinson, Darragh Coakley & Jeremiah Spillane (MTU)

Disclaimer:

This project has been co-funded by the European Union. This publication reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

TIMETABLE

Day 1 – Monday, October 20, 2025

08:15AM–09:00AM | Registration, Get-together & Refreshments

09:00AM–09:15AM | Opening remarks

09:15AM–09:30AM | Welcoming words by MTU president Maggie Cusack (TBC)

09:30AM–10:15AM | **Keynote**

Mark O'Hara (European Association for Institutional Research (EAIR) & Advance HE): Quality Education – Under development, not underdeveloped (working title)

10:15AM–11:15AM | **Keynote**

Henriette Stoeber (European University Association): Environmental Sustainability in European Higher Education Institutions – a comparative overview

11:00AM–11:15AM | Refreshment break

11:15AM–12:00PM | **Keynote**

Gesche Kindermann (University of Galway): Sustainability at the University of Galway: Try to learn, live and lead on sustainability at an Irish Higher Education Institution

12:00AM–01:30PM | **Paper Session 1: Education & Behavioral Change**

Moderator: Ruaidhri Neavyn, HEA

Gwen Lettis et al.: Widening the reach of a digital tool for core and responsible student behaviour development.

Carla Ferreira et al.: Sustainability Assessment Tools in Higher Education: The Portuguese case.

Rowan Obermann et al.: Using participative creative arts projects to mediate sustainability engagement in HEIs

01:30PM– 02:15PM | Lunch break

02:15PM–03:45PM | Paper Session 2: Strategic Implementation & Assessment

Moderator: Ruaidhri Neavyn, HEA

Seamus Hoyne: Exploring a future-orientated framework for sustainability planning in higher education: Insights from a Comprehensive Literature Review

Frank Ulbrich: A structured, multi-level institutional framework for embedding the Sustainable Development Goals in Higher Education Institutions.

Zahid Hussein et al.: Benchmarking practices and data transparency: investigating the mediating role of feedback mechanisms in driving sustainable development in academic institutions.

03:45PM–04:15PM | Keynote

Jouni Kekäle (University of Eastern Finland): Higher Education Institutions' Roles in Climate Change Mitigation

04:15PM–04:45PM | Keynote

Leyla Azizi (Technical University Dresden): Operationalizing the Whole-Institution Paradigm: Participatory Approach to Sustainability Assessment Development in German Higher Education

04:45PM–05:00PM | Refreshment and End of Day 1

07:00PM | Dinner

Day 2 – Tuesday, October 21, 2025

08:00AM–08:30AM | *Get together & Refreshments*

08:30AM–09:00AM | **Presenting the GET AHED project I:**

GET-AHED and the Green Self-Assessment toolkit (Verena Régent, Barbara Gabriel Coehlo, Robertt Valente)

09:00AM–10:30AM | **Paper Session 3: Communication & Applied Practice**

Moderator: Daniel Pavlov, Ruse University

Noel Murray: FoodTuristic

Shirley Howe: Business not as usual: Integrating sustainability into business education at MTU

Sarah Schiffecker et al.: Communicating Across Currents: An Intercultural Approach to Water Sustainability

Messaging in Higher Education

10:30AM–10:45AM | *Refreshment break*

10:45AM–11:30AM | **Presenting the GET AHED project II:**

Green Training, Green Case Studies & the overall platform (Rebecca Robinson, Elias Eder, Jeremiah Spillane, Darragh Coakley)

11:30AM–12:15PM | **Keynote**

Verena Rohlf-Liszt (University of Applied Sciences Burgenland): Effectuation-Oriented Entrepreneurship Education – Embedding existing resources in higher education teaching

12:15PM–01:00PM | *Lunch*

01:00PM–01:45PM | **Pitches**

Moderator: B. Gabriel Coehlo / R. Valente (University of Aveiro)

Marit de Kort et al.: Towards Green (Bio)medical Education: Tools and Insights from UMC Utrecht's Planetary Health Integration Team

Noel Murray: Waste to Taste.

Diarmuid Grime et al.: Interplay between University Timetabling and Sustainability in Higher Education

Jennifer Lauren: Global Youth Protest, Climate, and Education.

01:45PM–02:00PM | **Closing Reflections**

02:00PM | *End of Day 2*

LOCATION:

Melbourn Building, Melbourn seminar room, Hincks Centre for Entrepreneurship Excellence

Munster Technological University Campus, Bishopstown, Cork, Ireland, T12 P928

**Schedule as of October 14th, 2025. The programme is continuously updated and subject to change.*

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ASSOCIATE PARTNERS

- statements-

Maria Keplinger

Head of department for
Evidence-based Higher Education
Development

Federal Ministry of Women, Science and
Research, Austria



The GET-AHED project makes an important contribution to advancing the green transformation of the higher education sector. Its evidence-based, participatory, and whole-university approach enables institutions to strengthen environmental sustainability across all missions — including teaching and learning, where the focus on environmental sustainability skills is particularly valuable. For these reasons, it was a pleasure and a priority for us to support this initiative as an associate partner.

Ivana Radononva

Bulgarian Ministry of Education



The GET-AHED platform brings together valuable tools that can truly support the green transition of higher education institutions. The self-assessment toolkit is quick and easy to use, the training resources are clear, and the case studies offer inspiring examples. I believe the results elaborated by the international GET-AHED team will be of real benefit to universities across Europe and beyond as they strengthen their sustainability efforts.

Verena Liszt-Rohlf

representing the

**„Bündnis Nachhaltige Hochschulen“
(Alliance of Sustainable Higher
Education Institutions)**

Senior Researcher

University of Applied Sciences
Burgenland



Sustainability should be an integral part of universities' strategic and operational activities. Universities should fulfil their social responsibility and serve as role models and multipliers in society, generating new knowledge and firmly anchoring sustainability issues in research and teaching. GET-AHED supports networkers and doers at universities, providing them with tools and arguments. So let's get started.

KEYNOTES

Abstract | Quality education: Under development, not underdeveloped

This presentation considers how higher education institutions can build sustainable, enduring, responsive and inclusive systems that maintain educational quality amid volatile, uncertain, complex and sometimes ambiguous societal, technological and geopolitical landscapes. It begins by reviewing some of the key themes that emerged during the EAIR's 2024 Annual Forum at University College Cork and the subsequent publication, 'Transcending Boundaries for a Sustainable Future of Higher Education'. These themes included wellbeing and resilience; global academic co-operation, collaboration and engagement; the need for sustainable strategic management and governance of HE; enabling policy frameworks; securing research excellence; the integration of digital affordances; and innovation in curriculum design and delivery. Universities are uniquely positioned to generate knowledge, to foster critical thinking and to instill values that address the complex global challenges of climate change, social inequality and economic resilience.

In addition to the Forum's emergent themes, the presentation will also focus on two related issues that seem highly likely to underpin universities' efforts to hone more sustainable educational practices. The first concerns student enablement and inclusion. Treating learner and professional development as a process of 'becoming', rather than seeing students as passive recipients of knowledge, offers a powerful means through which to support students' development of key skills, confidence and agency to tackle multi-disciplinary real-world issues in the future.

The concomitant factor for success revolves around the continuing professional development (CPD) of academic staff. As knowledge, technologies and societal needs rapidly evolve, educators must continuously refine their pedagogical approaches and expertise. CPD, including pedagogical development, ensures that academic staff remain current with research, innovative learning methodologies and effective engagement strategies. Moreover, CPD fosters a culture of lifelong learning and serves to model the very competencies and dispositions that we want our students to master.

Bio

Professor Mark O'Hara is a Principal Fellow of the Higher Education Academy and is Senior Consultant (Education) at Advance-HE. He has extensive experience with AHE's International Officers Training Programme in India as well as the International Learning Cohorts programme for British Council. Mark has also acted as institutional lead for multi-national Erasmus+ projects on equality, diversity and inclusion and on student transitions. He has over 30 years' experience in Higher Education and is both a National Teaching Fellow and a winner of the UK's Collaborative Award for Teaching Excellence (CATE). Mark's previous roles have included Associate PVC for Education, Associate Dean for Learning Teaching and Quality Enhancement and Head of Student Experience. Mark is currently Vice Chair of the European Association of Institutional Research (EAIR).



Keynote | Henriette Stoeber

Abstract | Environmental sustainability in European higher education institutions – a comparative overview

European higher education institutions are increasingly engaged in environmental sustainability, and in activities to support the overall achievement of the SDGs.

The European University Association (EUA) has recently surveyed more than 400 institutions from 56 higher education systems, capturing a wide range of perceptions and approaches towards this theme. Presenting the dataset for the very first time before its publication at the end of 2025, the keynote on “Environmental Sustainability in European Higher Education Institutions” will provide a comparative overview of European universities’ strategies and actions.

In line with the GET-AHEAD project’s objective to enhance sustainability through whole institutional approaches, the presentation will provide insights into university activities in the fields of education, research and innovation, and the third mission. It will also highlight approaches to institutional governance and monitoring, as well as challenges faced and opportunities to overcome them^[HS2].

<https://www.eua.eu/our-work/get-involved/call-for-contributions-survey-on-sustainability-and-greening-at-higher-education-institutions.html> has a pdf preview to download (right hand of the screen)

Bio

Henriette Stoeber is a Senior Policy Analyst in the European University Association’s (EUA) Higher Education Policy Unit, where she works on various policy issues in the European Higher Education Area (EHEA) and the EU, including Erasmus+. Henriette implements all quantitative research projects of the unit. She is also in charge of EUA’s activities for students and researchers with an at-risk or refugee(-like) background, and EUA’s work on Ukraine.

Prior to joining EUA, Henriette has worked at the Hungarian Rectors’ Conference and the German Academic Exchange Service (DAAD). She holds a Joint MA in European Public Policy from the University of York (UK) and Central European University (then - Hungary), where she specialised in the field of higher education policy.



Abstract | Higher education institutions' roles in climate change mitigation

The presentation deals with Higher Education Institutions (HEI) role in climate change (CC) mitigation in relation to other key societal actors. The presentation's background comes from a book "Higher Education Policy for Tackling Climate Change – Drivers, Dynamics and Effects" (Palgrave MacMillan, 2025), edited by Jouni Kekäle and Rómulo Pinheiro, investigating the roles of HEIs in tackling CC through nine country cases. 20 researchers from around the world contributed to the book. Prior and subsequent works are also used in argumentation, and the key arguments are developed further in the context of global climate change. A subsequent book chapter (Kekäle & Pinheiro: Strategic Institutional Leadership for Tackling Climate Change, Brill 2025) is one stepping stone in this line of work. Effective CC mitigation needs strong political steering, corporate efforts, demand by citizens and innovations from HEIs. HEIs' sometimes claimed leading or even sole role in CC mitigation might make policymakers, industries and citizenry to take a backseat in approaching the wicked issue and thus be counterproductive.

Actions do not depend solely on HEIs: there already are working solutions and innovations tend to take decades to penetrate society. Still, HEIs can take care of their own emissions. On a broader scale potential contributions could include, for example, political and financial incentives, critical carbon removal processes, and decarbonization technologies which are neither sufficient nor scalable enough. More knowledge and better understanding among citizens are also needed. It is argued that HEIs play an important supportive or developmental role in CC mitigation, but effective cooperation between societal sectors is crucial.

Bio

Jouni Kekäle is a Professor and Chief Senior Specialist and at the University of Eastern Finland. He has previously worked for 23 years as Human Resources Director in multidisciplinary universities of Joensuu and Eastern Finland, where institutional strategy aims at tackling global problems. His main research interests have included academic leadership, human resources management, quality, responsibility, disciplinary and organizational cultures in Higher Education as well as assessment systems and the changing operational environment for the higher education sector. Recent work has concentrated on HEIs role in CC mitigation.



Abstract | Operationalizing the whole-institution paradigm: Participatory approach to sustainability assessment framework development in German higher education

The UNISIMS (University Sustainability Indicator Monitoring System) project is a successful example of implementing a participatory approach to sustainability assessment in the German higher education sector. UNISIMS developed a standardized, web-based assessment system designed to capture stakeholder perspectives systematically and to translate them into indicators that meet both internal steering needs and external expectations for transparency and communication. Consistent with recommendations in the literature that sustainability reporting in universities is most effective when stakeholders are engaged early in defining goals, indicators, and evaluation criteria, the project combined co-creation workshops, surveys, and iterative feedback loops with practical testing.

Institutionally anchored at Technische Universität Dresden (Germany), UNISIMS ran from 1 April 2021 to 30 November 2024 and involved 25 pilot universities across Germany, with an additional 26 universities following as interested partners. The project proceeded as following: a) an initial systematic review of relevant indicators; b) a participatory development phase with multiple workshops, survey and working groups to systematize action fields and refine indicators; c) practice-oriented application and process-based adaptation; and d) development and testing of the web-based assessment platform. UNISIMS structures assessment with a whole-institution lens covering teaching, research, transfer, governance, and operations.

Bio

Dr. Leyla Azizi is a postdoctoral researcher at the Dresden University of Technology, whose work focuses on sustainability management and reporting. She leads and collaborates on projects that use participatory approaches to co-create knowledge with stakeholders and to develop robust assessment tools for organizational sustainability performance. She publishes her research in journals like Auditing, Accounting, Accountability Journal, Ecological Economics, Journal of Cleaner Production, and Sustainable Development. Alongside research, Dr. Leyla Azizi teaches sustainability-focused courses, integrating empirical insights into the classroom and mentoring students in applied projects.



Abstract | Effectuation-oriented entrepreneurship education – embedding existing resources in higher education teaching

The Effectuation-Oriented Entrepreneurship Education (EOEE) represents a transformative approach to entrepreneurship education, emphasizing subject orientation, sustainability, and the integration of diverse identities and biographies. Rooted in the Effectuation Theory, EOEE shifts the focus from traditional goal-oriented decision-making (causation logic) to a means-oriented approach, leveraging existing resources such as biographies, competencies, and networks. This framework aligns with contemporary societal challenges, including climate change, labor market transformations, and the need for inclusive and innovative entrepreneurial ecosystems.

The presentation highlights the theoretical foundations of EOEE, addressing its differentiation from mainstream economic assumptions and its alignment with the Environmental, Social, and Governance (ESG) model. Key principles of Effectuation, such as „bird-in-hand“ (starting with available means), „affordable loss“ (risk awareness), and „crazy quilt“ (collaborative partnerships), are explored in their application to entrepreneurship education. The integration of biographical work is emphasized as a core method, enabling learners to reflect on their life stories, enhance self-awareness, and develop entrepreneurial competencies tailored to their unique identities.

Insights from ongoing projects, such as „Mind the Gap“, demonstrate the practical implementation of EOEE across various educational levels and regions. These initiatives aim to foster entrepreneurial skills among students and researchers, expand entrepreneurial ecosystems, and address societal challenges through innovative solutions. Furthermore, the presentation underscores the need for a reform in entrepreneurship education to address four critical problem areas: the dominance of neoclassical economic perspectives, managerialism in business education, fragmented educational goals, and stereotypical target group approaches.

By embedding EOEE into higher education, this approach not only promotes sustainability and social responsibility but also enhances diversity and innovation within entrepreneurial ecosystems. The presentation concludes by advocating for interdisciplinary research and long-term evaluation to solidify EOEE as a robust framework for future-oriented entrepreneurship education.

Bio

Verena Liszt-Rohlf is a senior researcher at the Department of Business Studies of the University of Applied Sciences Burgenland, Austria, where she is primarily familiar with instrumental research (eye tracking, emotion measurement), innovative learning arrangements, and project work at both European and national levels. She started her scientific career at the University Graz. There, she studied business administration and business education, and later earned her doctorate in business education. She worked at various universities in Austria and Germany, focusing on adult education and entrepreneurship education. In September 2025, she submitted her postdoctoral thesis on effectuation-oriented entrepreneurship education at the University of Graz.



Abstract | Sustainability at the university of Galway: Trying to learn, live and lead on sustainability at an Irish higher education institution

'Sustainability at the University of Galway: Trying to learn, live and lead on sustainability at an Irish Higher Education Institution' explores the University of Galway's approach to sustainability. The university is committed to sustainability, and has identified sustainability as one of its core values and a key pillar of the university's strategy. To progress and embed sustainability, the university has implemented a 'Learn-Live-Lead' model for sustainability across the institution, with a particular view on empowering students to become sustainability leaders. 'Learn' addresses the curricular and co-curricular elements, as well as research, all aiming to include sustainability in the student journey. This is also strongly linked to the 'Live' aspect of the approach, which focuses on the natural and built environments of the university and engagement with both. The 'Lead' aspect of the approach focuses on governance and how students are involved in sustainability leadership. This talk will consider the implementation of the approach, what has worked, but also touch on some of the challenges the University of Galway faces going forward and future steps.

Bio

Gesche Kindermann, MSc, PhD is a lecturer in the School of Natural Sciences at the University of Galway, where she is director of the MSc Environmental Leadership and the MSc in Biodiversity and Land Use Planning. She is an environmental scientist with an interest in the interrelationships between the environment and human activity. Her work explores the concept of sustainability and environmental conservation in the face of global change. As a member of the University of Galway Community University Sustainability Partnership (CUSP) committee, she leads the Research and Learning working-group and coordinates the university-wide Introduction to Sustainability module. Embedding a holistic approach to sustainability in research and learning across higher education institutions is a main focus in her work as part of CUSP.



PAPER ABSTRACTS

Sustainability assessment tools in higher education: The Portuguese case

Carla Ferreira

Bárbara Gabriel

Robertt Valente

Department of Mechanical Engineering, Centre for Mechanical Technology and Automation (TEMA), University of Aveiro, Portugal

Abstract:

Portuguese higher education is organised in a binary system that includes both university and polytechnic education, and is taught in public and private institutions. University education comprises universities, university institutes and other university teaching organisations. Polytechnic education includes polytechnic institutes and other polytechnic educational entities. As in 2023, Portugal had 61 private establishments and 34 public HEIs (DGES, 2025), both university and polytechnic, plus two public military and police institutions. The public network of Portuguese Polytechnic Higher Education is composed by 15 Polytechnics, 5 Non-Integrated Schools and 7 Universities, 4 of which are represented in the CCISP1 (2025).

Taking into account this ecosystem, this study aims: (i) to identify which sustainability self-assessment tools are most used by Portuguese HEIs; and (ii) to identify which dimensions and key indicators are the ones most frequently considered. The work is based on an extensive documental analysis of scientific articles, MSc and PhD theses on sustainability tools and indicators, sustainability reports from Portuguese HEIs, as well as on the analysis of public/published institutional information (scientific production, institutional website, reports, and other dissemination material) from 34 Portuguese public HEIs. Additionally, to a dispersion information pattern, the disparity in the periodicity of sustainability assessment and reporting at HEIs was also noted, which can perhaps be justified by the lack of national regulations, guidelines and criteria on how (and when) to assess sustainability at HEIs in Portugal. On the other hand, the absence of a unified national and/or European sustainability report model, flexible enough to include dimensions and/or indicators that exhibit the specific characteristics of each HEI, reflects the diversity of different sustainability approaches in the process of evaluating and disseminating results.

The sustainability self-assessment tools most used by Portuguese Higher Education Institutions (HEIs) are: (i) Alternative University Appraisal; (ii) Plan Vert; (iii) People & Planet University League; (iv) Sustainability Assessment Questionnaire; (v) Sustainability Tracking, Assessment & Rating System; (vi) Sustainability Leadership Scorecard; (vii) Programme Sustainable Assessment Tool; (viii) Unit-Based Sustainability Assessment tool; (ix) Green Metrics University Ranking; (x) The Impact Ranking and (xi) QS World University Ranking.

The present analysis identified a list of 40 key indicators, distributed across the 5 dimensions most favored by HEIs (academic, environmental, economic, institutional and social). The University of Coimbra (UC) has been considered the most sustainable HEI in Portugal, according to the latest editions of THE Impact Rankings, which is why the indicators used have been considered a reference for various academic and scientific studies, as well as for the development of HEIs' own self-assessment tools. This is not very common in Portugal, except for those that are the result of a methodology illustrated by a case study, for example, the Faculty of Engineering of the University of Porto (FEUP), which specifically developed a model (SusHEI) to portray its operation, the role of all its stakeholders, to describe its main activities, as well as their impacts. Also, in the QS World University Ranking (2025 edition), UC consolidates its lead as the most sustainable HEI in Portugal.

Short Bio

Carla Ferreira (Ph.D, Education, Higher Education area, focus in the Engineering Education) is a researcher and professor at University of Aveiro. She is a member of the Centre for Mechanical Technology and Automation (TEMA) (UA-Portugal). Has a Degree in Education (2004); Post-Graduation in Special Education; Specialized in Education and Libraries (2011) and Master degree in Sciences of Education (Specialization in Personal and Social Training) (2011). Her interests' research includes Pedagogy in Higher Education, Engineering Education, Sustainability, Social Sustainability, Assessment and Quality, Quality Management Systems, Teacher Training, Adult Education, Libraries, and Education and Cultural Heritage.

Bárbara Gabriel is an Assistant Professor at the Department of Mechanical Engineering at the University of Aveiro, with a background in Engineering and a PhD in Mechanical Engineering, specializing in decision-making models for societal applications and engagement. With over two decades of experience in education and research, she has been acting as an expert in Higher Education Innovation and Entrepreneurship since 2016, through the HEInnovate initiative, collaborating with the European Commission and OECD. As Coordinator of European projects as TANDEM+ and SFF.DeepT+ (EIT HEI Initiative), she designed and implemented curricula and engagement models for students and staff for innovation in Higher Education Institutions and ecosystems. Bárbara contributed to EUFORIA(2.0), and entreTime European projects, developing educational resources for societal challenges and currently as Principal Investigator of the University of Aveiro, partner of the consortium of the GET-AHED project. Her career path was recognized with awards, such as the First National Engineering Teaching Award by the Order of Engineers of Portugal (2024).

Robertt Valente (Ph.D, Mechanical Engineering) is a researcher and professor at University of Aveiro. With pedagogical experience and intervention in the areas of fundamental, applied, and computational mechanics since 2000, he has been involved since 2015 in the area of engineering education (namely teaching/learning approaches, university-business education and entrepreneurial mindset). Also, from 2015 Robertt Valente is deeply involved in academic management roles and activities, first acting on the Board of Directors of the Centre for Mechanical Technology and Automation (TEMA, 2015-2018), and since 2019 as Director of the Department of Mechanical Engineering at University of Aveiro.

A structured, multi-level institutional framework for embedding the sustainable development goals in higher education institutions

Frank Ulbrich

Lucerne University of Applied Sciences and Arts, School of Business, Switzerland

Abstract:

The 2024 Sustainable Development Goals (SDGs) Report presents a disconcerting outlook: a mere 17 per cent of the SGD targets are on track, with over one third exhibiting no progress or even regression (Department of Economic and Social Affairs, 2024). This global stagnation underscores the urgent need for transformative action across all sectors, including higher education. Universities and colleges are uniquely positioned to drive sustainable development by equipping graduates with the competencies required to address complex global challenges. However, many institutions continue to struggle with translating sustainability commitments into coherent, institution-wide strategies.

This paper proposes a structured, multi-level institutional framework for embedding the SDGs into the core operations of higher education institutions (HEIs). Drawing on the work of Lozano (2010; 2022), the framework emphasises alignment across four organisational tiers: university, faculty or school, programme, and module. At each level, it is suggested the integration of sustainability is operationalised through the alignment of intended learning outcomes, pedagogical approaches, and assessment strategies. This approach ensures that sustainability is not treated as an isolated or symbolic initiative, but as a systemic and strategic priority.

The framework addresses a critical gap in current practice: the lack of coherence and transparency in how sustainability is embedded across curricula and organisational tiers. While many institutions engage in module- or programme-level mapping of SDGs, these efforts often remain fragmented and disconnected from broader institutional missions. By contrast, the proposed framework facilitates vertical and horizontal alignment, enabling institutions to articulate a clear and consistent sustainability narrative. This coherence is essential not only for internal curriculum development but also for external communication and stakeholder engagement.

To support implementation, the paper outlines practical tools for visualising and communicating SDG integration. These include matrix-based mapping techniques that reveal patterns of SDG coverage across programmes, as well as more advanced models inspired by the AACSB Assurance of Learning (AACSB, 2019) practices. Such tools enhance transparency and allow institutions to demonstrate the depth and progression of sustainability competencies throughout the student learning journey.

Strategically, the framework serves multiple purposes. It supports institutional legitimacy by aligning educational practices with societal and policy expectations. It enhances accountability through structured reporting mechanisms. And it empowers academic leaders to make informed decisions about curriculum design, resource allocation, and staff development. Importantly, the framework is adaptable to diverse institutional contexts, making it a versatile tool for both research-intensive universities and teaching-focused colleges.

In conclusion, embedding the SDGs into higher education requires more than rhetorical commitment—it demands a deliberate and structured approach. The proposed institutional framework offers a pathway for HEIs to transition from strategy to structure, thereby ensuring that sustainability becomes a defining feature of their educational mission. By fostering alignment, transparency, and stakeholder engagement, this approach strengthens the capacity of higher education to contribute meaningfully to the global sustainability agenda.

Short Bio

Prof. Dr. Frank Ulbrich is a specialist in higher education management and education for sustainable development. With over 25 years of experience in academic leadership and curriculum innovation, he has contributed to institutional strategies that align teaching and learning with the United Nations Sustainable Development Goals (SDGs). His research focuses amongst others on the integration of sustainability competencies into higher education curricula, strategic institutional transformation, and stakeholder engagement. He currently serves as Programme Director for the Bachelor of Science in Business Administration at the Lucerne School of Business.

Croí: Widening the reach of a digital tool for core and responsible student behaviour development

Gwen Lettis

Lecturer, Media Communications, B121, Munster Technological University, Rossa Avenue, Bishopstown, Cork, Ireland, T12 P928

Abstract:

Higher education has a crucial role in advancing sustainability, a widely acknowledged objective. As part of this, UN SDG Goal 4, „Quality Education,“ promotes Education for Sustainable Development (ESD). This initiative aims to cultivate a new mindset that fosters a safer, healthier, and more prosperous world (UNECE, 2021). For ESD to be truly effective, it must be rooted in individuals' personal values and convictions, as highlighted by Scoffham (2015) and further illustrated by key sustainability performance competencies (Figure 1). Despite the abundance of ESD guidance, finding theoretical and evidence-based approaches that equally prioritize both personal and societal values remains a significant challenge.

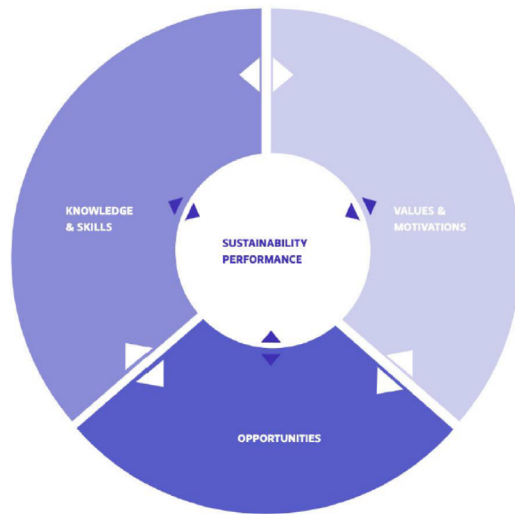


Figure 1: Competencies for Sustainability Performance. Adapted from Rieckman (2018, p.46)

This paper introduces a novel learning process (Croí) under development at Munster Technological University (MTU), designed to help students clarify their values and goals and integrate them into their work. The aim is to foster core development, encompassing personal and ethical growth, which can, in turn, lead to responsible practices – those that are constructive rather than destructive and enhance the environment, people, economy, and culture. The latest iteration of this process has been transformed into an Open Educational Resource (OER) digital tool, accessible via The National Resource Hub (2025).

The research team (one graphic design and two Business Information Systems (BIS) lecturers) developed the latest iteration of Croí which is fully described and explained in this paper. While the process was initially evaluated for its impact on graphic design students, (one hundred graphic design students in both Ireland and the U.S.), this paper also details the evaluation of its effects on Business Information Systems (BIS) students. Specifically, in 2024 and 2025, two workshops were conducted with approximately 50 BIS students across two separate groups. The information collected from these workshops was subsequently analysed using thematic analysis. The paper presents an overview of the impacts observed regarding core and responsible development, providing a crucial foundation for further expanding the tool's reach to a broader student audience.

Two key themes emerged regarding the tool's impact across both student disciplines. Firstly, values proved critical in shaping both personal and professional paths for students in both groups. While students exploring values in Education for Sustainable Development (ESD) can sometimes grapple with value conflicts (Garrison et al., 2014), the Croí process aids core development by clarifying goals and „bringing awareness about which values to activate“ (Lettis, 2022), a benefit clearly observed in studies within both disciplines. Secondly, both student groups demonstrated an understanding of making a positive impact and engaging in constructive actions. This emphasis on action is particularly important, as Croí aims to foster behavioural, not just attitudinal, development.

Short Bio

Dr. Gwen Lettis has been a lecturer on the Visual Communications course at Munster Technological University (MTU), Cork, Ireland for 15 years. She is Year 4 Co-Ordinator and Chair of the Visual Communications programme.

Her research interests are in the areas of Education for Sustainable Development, more specifically specialising in the integration of personal values and goals into work processes to encourage core and responsible student behaviour development. She is currently the project lead on “Croí - Clarifying and using core values and goals,” a project that aims to develop an MTU wide digital tool to facilitate students in using their personal values and goals in their careers. The project is funded by the Higher Education Authority Strategic Alignment of Teaching and Learning Enhancement Fund. Her research aims to equip future professionals with the critical self-awareness and ethical grounding necessary to drive positive impact in their careers and communities.

Dr. Fred Creedon is lecturer and department operations support in the Department of Accounting & Information Systems in Cork Institute of Technology, where his teaching priorities are systems analysis and design, design thinking, service design. Research interests have thus far focused on Design science, design thinking, service design, innovation, UX design, interface design, data presentation and visualisation, health information systems, early warning systems, decision making and value and goal clarification for responsible behaviour development.

Denise McSweeney is a lecturer on the Business Information Systems programme at Munster Technological University where she also serves as Work Placement Manager, preparing and supervising students as they transition into industry roles. Her academic and professional interests centre on professional development, values-based education, and Education for Sustainable Development (ESD). She plays a key role in the delivery of the Croí framework, a reflective process designed to help students align their personal values with their academic and professional pathways. Her work supports students in building strong professional identities and pursuing purpose-driven, sustainable careers.

FoodTuristic

Noel Murray

Head of Department of Tourism & Hospitality, MTU

Colum Gibson

Centre Manager, Clean Technology Centre, MTU

Abstract

More than 25% of food produced is wasted: „In Ireland we waste about 750,000 tonnes of food each year, according to current best estimates“, EPA 2023. The EU defines food waste as food that is ,lost or wasted along the whole food supply chain, on the farm, in processing and manufacture, in shops, in restaurants and canteens and in the home.“ While it can be a little complex to define what is or is not food waste, a definition could be simply that food waste is food that is not eaten. Every business has the power to change how they deal with waste and, in doing so, to make a huge improvement on our carbon footprint and help Ireland achieve the climate targets that are so important for us all. In order to do this, everybody involved in foodservice businesses needs to be actively involved.

The FoodTuristic project addresses the lack of green technology curriculum in European culinary and hospitality schools, which have traditionally focussed more on gastronomy and hospitality management skills. It is funded via the Erasmus Key Action 2 framework, with the project running from November 2023 - November 2025.

The project goals are:

1. To educate culinary and hotel schools about how food waste can be reduced with improved use of technology;
2. To educate culinary and hotel schools about how technological improvements can support campus food growing and food miles reduction;
3. To improve circularity of food waste in hotel schools by learning and teaching about technologies such as composting, gas harvesting and added value products.

The outputs from the project, are a range of digital resources for educators and students in hotel and culinary schools across four partner countries (Ireland, France, Slovenia & Malta) to reduce food waste, develop circular economy skills, and localise food production. We developed a training course delivered as a digital badge, which provides learners with the information and actions to make significant reductions in food waste. It also allows learners to take note of technological interventions that can be utilised in food production, food waste reduction and repurposing of food waste. We also developed a website, a mobile application, and a good practice guide, to address the green skills gap in European culinary and hospitality schools. The project showcases how to reduce food waste, utilise food waste in novel technology composting systems, and adopt new technologies to grow appropriate foods onsite. The skills developed by project output users will have strong legacy potential and benefit the reduced carbon impact of schools and industry.

Short Bio

Dr Noel Murray is Head of Department of Tourism & Hospitality at Munster Technological University (MTU). He is Vice President of the European Association of Tourism & Hotel Schools (AEHT), representing Ireland. He sits on the National Consortium Steering Group (CSG) for Culinary Apprenticeships at Higher Education in Ireland. He has also achieved the status of Senior Fellow (SFHEA) in recognition of attainment against the UK Professional Standards Framework for teaching and learning support in higher education. He co-leads a research team focusing on the Circular Economy for Regenerative Tourism at MTU.

Using participative creative arts projects to mediate sustainability engagement in HEIs

Rowan Oberman

Ashling Bourke

Siún Nic Mhuirí

Lucy Rivers

DCU Institute of Education, Dublin 9

Abstract

Human induced climate change, biodiversity loss and pollution are undermining social and ecological sustainability and call for urgent systemic action (IPCC, 2023; IPBES; 2019). Higher Education Institutions (HEIs) are recognised as significant sites for sustainability action for their leadership in education, knowledge generation and social engagement (Cortese, 2003; Lozano et al., 2013). The climate crisis is understood as a political and psychosocial tragedy as much as a scientific one (Bentz, 2020; Selby; 2010). The complexities, uncertainties, controversies and difficult emotions related to the climate crisis are associated with varied forms of cognitive dissonance (González-Gaudiano & Meira-Cartea, 2010). In this context the creative arts are increasingly called upon, as transformative, affect-sensitive and liberating media, to support engagement with climate change, and related issues, which can otherwise feel abstracted, overwhelming and complex (Bentz, 2020; Bryan; 2024). Music (Gibbs et al. 2020; Plummer et al. 2022), visual arts (Roosen et al, 2017; Sommer and Klockner, 2021) and climate writing (Kang, 2024; Hennessy et al., 2023) are utilised to express and elicit responses to the planetary crises. While much of this research suggests the role of the arts in communicating climate science, impact and solutions, it also proposes their potential to provide cathartic, participative and empowering experiences (Oberman, 2023; Bentz, 2020). As a recent and innovative practice, there is little research exploring the potential of creative art projects to engage HEI staff and communities in climate and planetary breakdown.

This presentation describes an action research project exploring the role of the creative arts in supporting sustainability engagement in an Irish HEI. The study captures and analyses the design and planning process of two small-scale university-based collaborative climate creative arts projects and the impact of those projects on participants. Participation in either or both of the projects was open to all HEI staff and community, one being performing arts and the other climate writing. The study draws on phenomenology and uses researcher diaries; interviews and structured participant diaries as data collection tools. In this way it brings together, builds on and contributes to research looking both at the role of the creative arts in climate action and at initiatives to enhance sustainability in HEIs.

Short Bio

Dr. Rowan Oberman is an assistant professor in the School of Stem Education Innovation and Global Studies and Co-Director of the Centre for Human Rights and Citizenship Education, at the Dublin City University (DCU) Institute of Education. Her areas of research interest include climate change education, creative writing and human rights education. Her doctoral study focuses on the use of picturebook reading and writing in inquiry-based approaches to climate change education. She is a qualified Barrister with particular expertise in human rights and family law. She lectures on DCU's BECE, BEd, PMEP programmes as well as the DCU MEd, the MEd in Literacy Professional Practice and MSc in Climate Change.

Dr. Ashling Bourke is an associate professor in Psychology and Human Development at the DCU Institute of Education. Ashling has experience in a wide range of research topics and methodologies with an active research profile in the intersection of Psychology, Rights, and Education. Her research and teaching interests include the processes that impact on child and adolescent wellbeing and children's rights. She teaches modules on social psychology, wellbeing, learning, research methods, and developmental psychology. Her current research projects include exploring social influences on climate change attitudes. She has recently been awarded a Dean's Research Fellow at the DCU Anti-Bullying Centre. In this role she is conducting research on the role of social dominance orientation and its interaction with cognitive empathy in the perpetration of cyber-bullying.

Dr. Siún Nic Mhuirí is a lecturer in the DCU Institute of Education, where she specialises in Mathematics Education. She is a member of CASTeL, Ireland's largest research centre in Science, Technology, Engineering and Mathematics (STEM) education. The majority of her primary teaching experience was in designated disadvantaged schools and she has worked with the Maths Recovery and Ready, Set, Go - Maths programmes. Her research interests include: mathematics classroom practices; dialogic teaching and the role of talk; teacher research and reflective practice.

Lucy Rivers is a composer, actor, singer, songwriter and arts facilitator. She has twenty five years of experience in the creative arts including facilitating and teaching participatory arts projects with diverse groups. She is currently involved in vocal pedagogy research with a group of people with learning disabilities and/or autism. She is also a choir master.

Communicating across currents: An intercultural approach to water sustainability messaging in higher education

Sarah Schiffecker

Lecturer & Assistant Director of International Graduate Student Affairs, College of Media and Communication,
Texas Tech University, Lubbock, TX 79409

Abstract

In order to keep promoting a 'green transition' of HEIs, effective sustainability communication has to be more than a complementary component but rather become a central driver of change. While this importance of strategic communication is global, the way we communicate about environmental issues, especially complex topics like water sustainability, is shaped by cultural context. What resonates in one region may fall flat or even backfire in another. This session presents a pilot project based at the College of Media and Communication at Texas Tech University in the heart of rural West Texas. It explores how intercultural approaches can enhance the design, delivery and ultimately the impact of sustainability messaging, specifically focused on water as a global, yet locally experienced, resource.

Rooted in a cross-cultural framework, the project trains students in sustainability messaging in two contrasting but interconnected regions: West Texas, where water scarcity is a daily reality, and Austria, where water is more abundant but increasingly impacted by climate-induced changes such as glacial melt and seasonal flooding. Through collaboration between one West Texas native and one Austrian native faculty students will create localized public service announcements (PSAs) and short-form social media campaigns about water-related issues in both West Texan and Austrian communities.

This session will share key features of this pilot project, highlighting both the opportunities and tensions in communicating sustainability across cultural contexts. We seek to highlight the importance of culturally aware communication and in training the students to see how communication differences reflect broader national attitudes toward water management, environmental policy and more broadly the cultural construction of nature. At the same time, this project seeks to provide valuable insights for creating more nuanced, audience-specific sustainability communication strategies.

In addition to presenting the project plan and outline, the session will introduce a teaching toolkit for instructors seeking to embed intercultural sustainability messaging into their curricula. This includes assignment prompts, assessment rubrics as well as a framework for cross-campus collaboration between institutions in different countries or regions. The project aligns with SDG 6 (Clean Water and Sanitation) and SDG 13 (Climate Action), while advancing GET-AHED's goals of leveraging digital innovation and participatory approaches to drive institutional sustainability.

Ultimately, the session and pilot project argue that sustainability cannot be communicated effectively without cultural sensitivity. As higher education seeks to globalize its green transition, this project provides a scalable and broadly applicable model for equipping students with the intercultural communication skills necessary to advocate for a more sustainable future. A future that listens to both science and culture and flows across borders like the resource it seeks to protect.

Short Bio

Swapping the Austrian Alps for the Plains of West Texas, **Dr. Sarah Schiffecker** joined Texas Tech University in 2017 as an international MA student and now serves as lecturer and Assistant Director of International Graduate Student Affairs at the College of Media and Communication. Her academic background is in Slavic Studies and Cultural & Social Anthropology (both at the University of Vienna, Austria) and the study of Languages and Cultures with a focus on German at TTU. Having been an educator throughout most of her professional life, Dr. Schiffecker earned her doctorate in Higher Education Research at TTU's College of Education where she studied how international students enculturate into new surroundings, what communication practices facilitate such transitions, and how institutions can communicate mattering to their international student populations. Dr. Schiffecker is passionate about international education and intercultural communication, which is reflected in her teaching, research, and service.

Dr. Coy Callison is a native West Texan with a professional background in strategic communication and print journalism. He currently serves as Professor & Associate Dean for Graduate Studies & Research at the College of Media and Communication at Texas Tech University. His research typically focuses on source and message factors and their interaction with cognitive tendencies and saliency factors underlying the attentiveness of individual audience members. Most recently, his funded work investigates strategic communication related to science communication, extreme weather and water scarcity. In particular, he is looking at how dwindling water resources impact agricultural producers and how they may make sense of communication related to weather and water with the occasional branching out into strategic communication surrounding the craft beer and wine industry.

Exploring a futures-orientated framework for sustainability planning in higher education: Insights from a comprehensive literature review

Seamus Hoyne

Technological University of the Shannon

Abstract

This doctoral research investigates how sustainability strategies within Higher Education Institutions (HEIs) can be enhanced through a futures thinking approaches. As sustainability challenges intensify globally, HEIs are increasingly recognised as key actors in fostering transformative change across education, research, operations, and civic engagement. Yet, the extent to which institutional strategies embody whole-of-institution and holistic perspectives and anticipate future sustainability contexts remains uneven. This study aims to critically examine the current landscape of sustainability strategy development in HEIs, focusing on three interrelated themes: (1) the adoption of whole-of-institution approaches; (2) the incorporation of holistic frameworks that address environmental, social, economic, and cultural dimensions; and (3) the integration of futures thinking to enable long-term, anticipatory planning.

Drawing on a constructivist worldview and employing a comprehensive literature review methodology (Onwuegbuzie & Frels, 2016), this study synthesised findings from over 70 peer-reviewed sources published between 2000 and 2024. The review explored disciplinary and methodological diversity across studies in Europe, North America, and beyond, covering HEI sustainability strategies, policy alignment, strategic planning frameworks, and applications of futures thinking methodologies such as scenario planning and backcasting.

Key findings reveal a progressive evolution in HEI sustainability engagement, from fragmented initiatives to more structured strategies aligned with institutional missions. However, whole-of-institution integration remains limited, with compartmentalisation evident across HEI functions. Holistic strategies—addressing all sustainability pillars—are still rare, and cultural sustainability is frequently overlooked. Despite increasing interest in long-term planning, there is little empirical evidence that futures thinking is systematically embedded in the development of HEI sustainability strategies. Where present, futures thinking is often treated as a discrete method rather than an integral mindset informing governance and decision-making.

The literature also highlights a mismatch between HEIs' public commitments—such as declarations and rankings—and their internal policy coherence and implementation capacity. While international frameworks (e.g. UN SDGs, ESD to 2030) call for integrated and anticipatory planning, HEIs face barriers including institutional inertia, lack of capacity, and short-termism in strategic processes.

This research contributes a novel conceptual framework that synthesises insights from sustainability strategy literature and futures studies to guide the development of more adaptive, systemic, and forward-looking sustainability planning in HEIs. The framework is being operationalised through empirical research in Irish HEIs via document analysis, surveys, and interviews with sustainability leaders.

This presentation will share initial findings from the literature review phase and outline the research's contribution to advancing sustainability practice in higher education. It will also highlight implications for leadership, policy, and the embedding of futures literacy within institutional strategy processes. Ultimately, this study advocates for a reimagining of HEI sustainability strategies that not only respond to present imperatives but also anticipate and shape desirable futures.

Short Bio

Seamus Hoyne is a Mechanical Engineer with Masters in Renewable Energy and Energy Management from the University of Limerick and University of Ulster. He is a highly experienced manager with 25 years' experience in energy, education and flexible learning environments. He has developed extensive networks regionally, nationally and internationally in the sustainable energy and higher education fields. He has worked in industry, research and higher education fields.

His research interests are focused on sustainable development, sustainable energy and climate action. As Development Unit Manager in the Technological University of the Shannon (TUS) he grew and developed a team of 20 staff focused on the field of sustainability. In 2021 he established the Sustainable Development Research Institute (SDRI) of which he is a Principle Investigator.

In January 2021 he was appointed as Dean of Flexible and Work Based Learning and Head of Centre for the TUS Thurles Campus. He is Chair of the Board of Directors of the Tipperary Energy Agency and Secretary General of FEDARENE, European Federation of Agencies and Regions for Energy and the Environment.

Business not as usual: Integrating sustainability into business education at MTU

Shirley Howe

TSAF Research Fellow | PRME Sustainability Coordinator

Abstract

The International Panel on Climate Change (IPCC) introduced the Representative Concentration Pathways (RCPs) in its Fifth Assessment Report (AR5) in 2014. The RCPs provide a framework in modelling climate change based on scenarios depicting different paths of anthropogenic greenhouse gas emissions. RCP8.5 is the pathway whereby the continued dominance of fossil fuels and limited implementation of sustainability policies mean that emissions continue unmitigated, leading to a global average temperature rise of 4.3°C by 2100. This “worst-case” scenario, further developed as the Shared Socioeconomic Pathway (SSP) 5-8.5 in the IPCC’s AR6 (2016), is commonly referred to as Business as Usual. This paper presents a case study on the integration of sustainability into education at Munster Technological University (MTU), specifically through implementation of the Principles for Responsible Management Education (PRME) within the School of Business. The seven principles of PRME are: Purpose, Values, Teach, Research, Partner, Practice, and Share. They emphasise responsible management education and action to cultivate thriving ecosystems and inclusivity so that students are equipped to balance social, environmental and economic imperatives in the workplace. Motivated by a long-standing commitment to embedding sustainability, ethics and responsible management into all aspects of education, research and engagement, the School as a recent PRME signatory has embarked on a strategic transformation in alignment with the UN Sustainable Development Goals (SDGs) to reshape business education for a more sustainable future. Concurrently, Ireland is emerging as a global leader in “green skills” recruitment. Collaborating with both lecturers and students to embed the PRME principles across the curriculum deepens understandings of the climate and environmental crises to enhance transformative capacities while building green skills. This paper highlights the methodologies used to assess current practices including systematic SDG mapping across School of Business programmes, and development of an action plan that prioritises staff-student partnership. A key focus is the advancement and delivery of resources for academic staff and students. Additionally, the challenges and successes encountered in implementation, as well as the role of cross-disciplinary collaboration in advancing sustainability education, are discussed. Finally, this paper argues that higher education can, and must, disrupt institutional barriers to empower a business not as usual approach if Ireland is to achieve the transformation necessary to meet its climate and sustainability action goals.

Short Bio

Dr Shirley Howe is a TSAF Research Fellow and PRME Sustainability Coordinator with the School of Business at Munster Technological University (MTU). Her PhD research at the Irish Climate Analysis and Research Institute (ICARUS), Maynooth University (MU) examines climate change resilience, vulnerability, adaptation and justice through a socio-ecological systems (SES) framework, with a particular focus on Ireland’s islands. It was funded by the Irish Research Council and the Environmental Protection Agency. Before joining MTU, Shirley was an Assistant Lecturer in climate change, environmental change, sustainability, and fieldwork methods with the Department of Geography at MU.

Benchmarking practices and data transparency: Investigating the mediating role of feedback mechanisms in driving sustainable development in academic institutions

Zahid Hussain

KASBIT, Karachi, Pakistan

Arman Khan

Assistant Professor, Shaheed Benazir Bhutto University

Abstract

In the evolving landscape of higher education, sustainability has emerged as a pivotal concern, necessitating institutions to adopt effective strategies for sustainable development. This study examines the interrelationship between benchmarking practices, data transparency, and feedback mechanisms within universities in Karachi, Pakistan, aiming to elucidate how these factors collectively influence sustainable development in academic settings. Employing a cross-sectional research design, data were collected through a structured questionnaire administered to employees across various universities in Karachi. The questionnaire encompassed items measuring the extent of benchmarking practices, the level of data transparency, the effectiveness of feedback mechanisms, and indicators of sustainable development within the institutions. A total of 257 responses were analyzed using the SPSS Process Macro to test the proposed hypotheses and assess the mediating role of feedback mechanisms. The findings reveal a significant positive relationship between benchmarking practices and sustainable development, indicating that institutions engaging in systematic performance comparisons tend to exhibit higher sustainability outcomes. Similarly, data transparency was found to positively correlate with sustainable development, suggesting that open and accessible information fosters an environment conducive to sustainability initiatives. Crucially, feedback mechanisms were identified as a significant mediator in these relationships, underscoring their role in translating benchmarking and transparency efforts into tangible sustainability outcomes. These results underscore the importance of integrating robust feedback systems within academic institutions to enhance the efficacy of benchmarking and transparency practices. By facilitating continuous improvement and stakeholder engagement, feedback mechanisms serve as a critical conduit for driving sustainable development. The study contributes to the existing literature by providing empirical evidence from a developing country context, highlighting the applicability of these practices in diverse educational settings. In conclusion, the research advocates for higher education institutions to prioritize the development of comprehensive feedback systems, alongside benchmarking and transparency initiatives, to foster sustainable development. Future research could explore longitudinal impacts and extend the investigation to a broader range of institutions to further validate these findings.

Short Bio

Zahid Hussain is a dedicated researcher and academic affiliated with the Department of Management Sciences at the KASB Institute of Technology (KASBIT) in Karachi, Pakistan. Holding a Master of Science in Marketing, his research interests encompass marketing, metaverse marketing, social change, corporate social responsibility (CSR), and sustainable development. Zahid has contributed to various publications, including studies on visual content marketing and sustainable consumption practices. His work aims to explore how businesses can create positive social and environmental impacts through innovative marketing strategies. Zahid actively engages in academic research, striving to bridge the gap between theoretical knowledge and practical applications in the field of marketing.(researchgate.net)

Dr. Arman Khan is an Assistant Professor in the Department of Business Administration at Shaheed Benazir Bhutto University, Nawabshah, Pakistan. He earned his Ph.D. in Marketing from Putra Business School, Universiti Putra Malaysia, specializing in Artificial Intelligence Marketing. With over a decade of experience in academia, Dr. Khan's expertise includes business development, entrepreneurship, sustainable development, international marketing, digital marketing, and renewable energy sources. He has authored numerous publications focusing on the intersection of technology and marketing, aiming to drive innovation through research and education. Dr. Khan also serves as the Director of the Office of Research, Innovation, and Commercialization (ORIC) at his university, fostering research initiatives and industry linkages.(researchgate.net, sbbusba.edu.pk)

PITCHES

Interplay between university timetabling and sustainability in higher education

Diarmuid Grimes

Ignacio Castineiras

Cemalettin Ozturk

Munster Technological University, Bishopstown, Cork, Ireland

Abstract

One of the most challenging problems faced by academic institutions worldwide is the university timetabling problem, producing a timetable optimised for student needs while taking into account staff and resource constraints. The combinatorics of this problem are such that it is not feasible to solve by brute force, with the number of possible solutions for typical sized universities such as MTU greater than the number of atoms in the universe!

However, within these solutions there is also a large number of solutions of equivalent quality, which provides potential to add in other factors that align with sustainable development goals.

From an environmental sustainability point of view, the energy-aware allocation of classrooms for higher education activities has a significant potential for building energy saving. For example, during off-peak times where room availability is more plentiful, room allocation can be consolidated to reduce building energy consumption. This can reduce consumption particularly in winter months with heating/lighting requirements.

Similarly, timetables that concern availability of public transportation options for students and empowering active travel modes contribute to reducing transport related emission levels. Public transportation at peak times is often insufficient to cover student needs, resulting in many students not being able to use public transportation.

Equality, diversity and inclusion (EDI) concerns such as gender equality, quality education, and reduced inequalities can also be incorporated to boost social sustainability of higher education institutes and the societies they are serving. Cost-of-living related issues has resulted in students commuting from greater differences.

In this presentation, we will discuss the correlation of university course timetables and sustainable development goals within the context of Munster Technological University in which stakeholder and policy maker engagement was conducted via workshops, surveys and interviews.

Short Bio

Dr. Diarmuid Grimes is a lecturer in the Dept of Computer Science in Munster Technological University, and is a supervisor within the SFI Centre for Research Training in Artificial Intelligence (CRT-AI). He received his PhD from University College Cork in 2012, where his research explored heuristic strategies for enhancing constraint satisfaction search. He has worked on research involving different aspects of sustainability in national and international research projects, including home energy management systems and data centre energy minimization problem. His current research interests are in combinatorial optimization, machine learning, course timetabling, and academic integrity.

Dr. Ignacio Castiñeiras has over 10 years' experience in the development, management and delivery of Computer Science undergraduate and postgraduate programmes, including: programme co-ordination; programmatic review; module authoring; face to face & online module delivery; project supervision and external examination. Passionate about teaching Computer Science, knowledgeable in the area (PhD) and with demonstrated innovative communication and pedagogical skills (MEd) achieving excellent student engagement and feedback.

Experience also demonstrates academic leadership and service via engagement in formal and informal educational activities, including: representing MTU in national & international student, industry & public events; mentoring the MTU IEEE Student Branch & student teams at the MTU Innovation Challenge; contributing to continuous professional development activities and volunteering to deliver a programming workshop abroad (NGO Nurture Africa) & locally (Cork Life Centre). The above reflects my vision: learning is possible; for everybody, everywhere, anytime, and must bring joy. 9 years' experience in national and EU research & development projects, including: work-package lead & contributor, collaborator in MTU & Research Ireland funding proposals, PhD supervision and publication of articles in peer-reviewed international conferences. Specialized in modeling and solving real-life combinatorial optimization problems.

Dr. Cemalettin (Cemal) Ozturk is a Logistics and Supply Chain Management Lecturer at Munster Technology University and Research Ireland (former SFI) funded Principal Investigator.

He has two decades of experience in various industrial, research, and academic organizations as a project coordinator, technical contributor, researcher, and lecturer in smart manufacturing, supply chain management, data and decision analytics applications in different domains. He works with commercial and open-source tools for developing and implementing mathematical and artificial intelligence (mixed integer programming, constraint programming, heuristics) methods, digital twins, and analytic solutions for designing, executing, and controlling supply chain, logistics, and manufacturing systems.

He has broad experience in business engagement and problem elicitation. He has worked within and led multi-disciplinary teams to solve complex problems arising from different industries: discrete manufacturing (aerospace, elevator, HVAC, automotive), aviation (airport resource planning), logistics (maritime), telecommunication (network design), health (resource planning) and software (MES and ERP system integration). Before joining MTU, he worked in Raytheon Technologies Research Center Ireland, Insight Centre for Data Analytics (4C-Cork Constraint Computation Centre) at University College Cork, Izmir University of Economics, Department of Industrial Engineering.

Co-creation and place-based learning: Lessons learned from multinational, intergenerational cross-disciplinary project

Jennifer Lauren

Abstract

This demonstration will highlight a collection of narratives, multimedia and case studies developed over five years, culminating in the first book to ever published as part of the Media Discourse Centre's timely series, Global Dissent. Diving into the barriers and opportunities facing community-led change, the discussion will frame best practices in co-creation, place-based learning and participatory approaches that is pivotal as higher education navigates global crisis, digital transformation, sustainable development goals and a unprecedented protest.

Short Bio

Jennifer Lauren is the editor of Global Youth Protest, Climate, and Education. She has worked globally on youth development, education, and sustainable livelihood initiatives with multinational agencies, the private sector, grassroots organizations, and academia including UNESCO, OECD, UNICEF, Visa, Reporters sans Frontières, New York University, and the American Association for the Advancement of Science. She holds Dual Master's Degrees in International Affairs and Global Communications from the American University of Paris, France, and serves as a Research Fellow at Montfort University's Media Discourse Centre.

Towards green (bio)medical education: Tools and insights from UMC Utrecht's planetary health integration team

Marit de Kort

Policy Officer, Graduate School of Life Sciences, UMC Utrecht, Utrecht University

Abstract

The Planetary Health Integration Team (PHIT) at UMC Utrecht is advancing a green and socially responsible transition in medical and life sciences education. Within the Faculty of Medical Sciences, different programmes are offered, such as Biomedical Sciences, Medicine, Clinical Health Sciences, Medical Humanities, and continuing professional education. PHIT has, since 2022, engaged a broad community of students, educators, healthcare professionals, and researchers to embed planetary health principles into curricula and practice.

Our mission is to reduce the environmental footprint of research and healthcare while strengthening their social and societal impacts. Central to our approach are the 'green handshake' philosophy, grassroots collaboration, and the development of supportive policy frameworks.

This presentation highlights key drivers of success in institutionalising an educational vision for planetary health, including stakeholder engagement, curricular innovation, teacher training, and strategic alignment with curriculum reform processes. We also reflect on ongoing challenges in embedding planetary health across diverse programmes.

As concrete outcomes, we showcase two open-access e-learning modules; Just and Sustainable Research Practices and Just and Sustainable Laboratory Research, alongside the Guideline for Socially Responsible (Bio)medical Research, a practical handbook aimed at equipping current and future professionals with sustainable and ethical research competencies.

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Short Bio

Marit de Kort is a policy officer at the Graduate School of Life Sciences, University Medical Center Utrecht, the Netherlands. During her PhD in gene regulation, Marit joined the sustainable lab movement through a local green team and as a board member of Green Labs NL. After quitting the PhD and leaving academia, she transitioned to biomedical education policy, with a focus on sustainability and planetary health education at UMC Utrecht, while continuing to drive greener labs in the Netherlands through Green Labs NL.

Iskander Khairoutdinov is an instructor and education innovator on the topic of planetary health at the University Medical Center Utrecht, the Netherlands. His main priorities include further developing and implementing a planetary health educational strategy for all study programs of the Faculty of Medical Sciences, and for the schooling of medical professionals at UMC Utrecht. Iskander has previously worked on integrating sustainability topics into business management education.

Waste to taste

Noel Murray
Siobhan Gough

Department of Tourism & Hospitality, MTU

Abstract

The central ethos of the Department of Tourism & Hospitality is educating students on the United Nations Sustainable Development Goals (SDGs) by embedding this in our curriculum. Our goal is not only to develop the skills and knowledge of our students in their chosen academic domain, but to challenge them to be better global citizens. Food waste is a global problem, with an estimated value of €920bn each year (UNEP Food Waste Index Report, 2024), while 9% of the world's 8.2 billion inhabitants are undernourished, and one third face food insecurity. In Ireland, as part of our EU reporting requirements, the estimated level of food waste was 750,000 tonnes across the Irish food supply chain in 2022. Following extensive research, we installed the MyGug digester directly beside the tourism & hospitality building. The unique aspect of the project is that it tackles the issue of food waste at source (on-site), which is raising the awareness of both the problem and the solution, thus impacting behavioural change. MyGug is a digester that uses the natural process of anaerobic digestion to convert the food waste we produce into two by products; 1) a biogas and 2) a liquid bio-fertiliser. The biogas is used to heat water to assist plant production through a hydroponic system in our greenhouse which was recently installed. We use the liquid bio-fertiliser in the greenhouse and raised beds to assist crop growth. Excess fertiliser is used to enhance flora across the campus.

Through the installation of this equipment, students can see how food is grown and then used as ingredients in the delivery of our culinary modules. We also have a 50-seater training restaurant, which is open to the public. This allows us to provide fresh ingredients which are a central part of menu design. This also allows students to explain the concept with customers, highlighting how the use of unavoidable food waste can be converted into a valuable resource which is used to enhance the food production cycle. In fact, this project has become somewhat of a focal point for the University as it provides an interesting and novel example of tackling the issue of food waste. We are continually receiving requests to showcase this project to researchers, staff and students from other discipline areas, as well as from visitors to the University.



The Science Bit: The unit can treat 6.7 tonnes of food waste per year (18kg of food waste per day) which produces up to 3300L of biogas per year. This is equivalent to 670kg of compressed gas per year.

Conclusion: The success of the Waste to Taste project is multifaceted and has been transformational in the way it has engaged staff and students. In many ways the project is very simple, therefore making the nuances of the project accessible to everyone.

Short Bio

Dr Noel Murray is Head of Department of Tourism & Hospitality at Munster Technological University (MTU). He is Vice President of the European Association of Tourism & Hotel Schools (AEHT), representing Ireland. He sits on the National Consortium Steering Group (CSG) for Culinary Apprenticeships at Higher Education in Ireland. He has also achieved the status of Senior Fellow (SFHEA) in recognition of attainment against the UK Professional Standards Framework for teaching and learning support in higher education. He co-leads a research team focusing on the Circular Economy for Regenerative Tourism at MTU.



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