



Please send inputs to aoife.corcoran@ucc.ie for future issues.



Frontiers for the Future

Congratulations to our SFI Frontiers for the Future awardees: Dr Marguerite Nyhan (Environmental Intelligence - Modelling Complex Human-Environment Interactions for Maximising Environmental Health in Urban Areas), Prof Astrid Wingler (Functional traits of grass weeds, investigating the processes that determine weediness) and Dr Dean Venables (Low-Cost Monitoring using Spectroscopy for High quality information on Urban NO₂).



UCC research awards 2023

Congratulations to ERI recipients of UCC research awards - Prof Hannah Daly (Research Communicator of the Year), Dr Jean O'Dwyer (Early-Stage Researcher of the Year), Prof Colm O'Dwyer (Research Award for Open Science), Dr Marguerite Nyhan (Consultancy Project of the Year), UCC Palaeontology (Research Team of the Year) and Dr Alicia Mateos Cárdenas (President's Award for Research Impacting SDGs).



SFI National Challenges Fund

ERI research which aims to develop a novel bio-based material from distillery by-products (Dr Kunwar Paritosh, Dr Archishman Bose), air quality forecasts (Dr Dean Venables, Dr Marica Cassarino) and wind energy research which will assist Ireland's green transition (Dr Paul Leahy) are amongst the UCC projects that have received funding through the SFI National Challenges Fund. Read more...



Celebrating the funding achievements of ERI researchers The ERI received a total of €20,421,926 in new funding in 2022 for 83 new projects. In May 2023, we acknowledged the hard work of our research community with a series of presentations from successfully funded recipients. We also bid farewell to outgoing ERI Director Prof Sarah Culloty who has led the Institute since 2014.



UCC STEM awards 2023

Congratulations to the ERI's Dr Paul Bolger, Dr Eoin Lettice and Dr Archishman Bose - recipients of UCC STEM awards 2023. Dr Bolger was the winner of the SEFS Staff Citizenship of the Year Award, Dr Lettice received the SEFS Excellence in Education & Public Engagement Award, and Dr Bose was a winner of the Postgraduate Research Publication of the Year.



MaREI Researchers listed as Top **Ireland Scientists** in ERI/MaREI Congratulations to researchers Prof Gregorio Iglesias, Dr Gordon Lightbody, Prof Jerry Murphy and Prof Brian Ó Gallachóir who were ranked amongst the Top Engineering and Technology Scientists in Ireland by research.com. Position in the ranking is based on a scholar's Discipline H-index which includes exclusively papers and citation metrics for an examined discipline.



Sustainable and net-zero cities

To inform the design of sustainable and net-zero cities, a recent publication from Dr Marguerite Nyhan and Anna Claire O'Regan reviews environmental modelling and monitoring tools which can be used to optimise greenhouse gas emissions reduction strategies for improved air quality, with the overall aim of supporting urban environmental health policies. Read the paper in full here..



Bloom festival 2023

The Irish Tree Explorers Network led by Dr Eoin Lettice and Dr Barbara Doyle Prestwich (ERI, School of BEES) in collaboration with Dr Claire Connolly (School of English) were exhibiting to over 100,000 visitors at the national Bord Bia Bloom festival in May. Also exhibiting at the event's Sustainable Living Stage/Conservation Section was Dr Tom Doyle's (School of BEES, ERI) and artist Shevaun Doherty's jellyfish-inspired garden.





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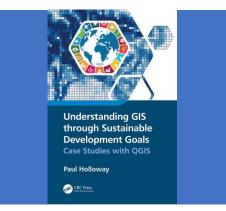
The science of the leftovers

By-products from the food and beverage sector are often amenable to anaerobic digestion (AD) to produce biogas. A recent paper from the CEEES research group led by Prof Jerry Murphy has now demonstrated that by using two-phase AD in the context of a whiskey distillery, intermediate products such as volatile fatty acids can also be isolated for further valorisation. Read the paper in full..



Pint of Science Festival 2023

Pint of Science brings scientists to local pubs and cafes to discuss their latest research and findings with the public. Kicking off the Festival in Cork in May, ERI's <u>Dr Fionn Rogan spoke about exploring sustainable energy futures with computer modelling and story-telling</u>, while <u>Dr Boris Drosz discussed how to make drinking water safe</u> using machine learning.



Understanding GIS through SDGs

A newly published textbook authored by Dr Paul Holloway (ERI, Dept of Geography) applies the lens of the Sustainable Development Goals to the study of Geographical Information Systems (GIS) using 16 real world SDG case studies from 11 different countries. By using open source software, the book provides a novel enhancement to 2nd and 3rd level GIS curricula. Read more..



Irish fossils ALIVE

The winning entries from UCC's *Ireland's Fossil Heritage* second national fossil art contest for children can be seen in a current exhibition in the UCC Glucksman Gallery. The theme of the competition was "Irish fossils ALIVE" and the winner of each age category received a guided tour of the fossil labs in UCC and a behindthe-scenes look at UCC's fossil collections.



Building sustainability into healthy eating guidelines

The Safefood project recently published a review of international practice on building sustainability into national healthy eating guidelines and the practical implications for policy. Recommendations from the research team, which included Dr Janas Harrington (ERI/School of Public Health), included guidance specific to empowering and encouraging consumers to transition to more sustainable eating patterns.



Insight into the lives of Gannets

To celebrate World Migratory Bird Day, you can <u>catch up with the ObSERVE II project</u> who are sharing their observations on the monitoring of Northern Gannets. The ObSERVE Programme (MaREI, ERI, School of BEES) undertake surveys for marine megafauna in Irish offshore waters. The purpose of these surveys is to estimate and describe animal density, abundance, and distribution.



New offshore renewable energy sector research published

A lack of government engagement, support and funding are highlighted as the main barriers for Irish firms when entering or doing business in the Irish offshore renewable energy sector, a CUBS/ERI/MaREI study has found. The research was conducted by the SELKIE project and researchers at the Spatial and Regional Economics Research Centre (SRERC).



Applications of Duckweed for the Circular Bioeconomy in Ireland

Interest in duckweed research and its applications has been steadily growing but efforts are still somewhat scattered. To bring together key stakeholders and the best international expertise, a one-day workshop on "Duckweed Research and Applications for the Circular Bioeconomy in Ireland" was organised in UCC in June by the Duck-Feed and Brainwaves projects. Read more..



Environmental Research Institute Newsletter, June 2023

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Celebrating Natural Heritage in Community Tourism

The LIVE project hosted its closing event in Waterville, Co. Kerry in May, with a showcase of the diverse outputs of the project – demonstrating how communities can engage collaboratively with natural and cultural heritage to promote a more regenerative model of tourism.

Read more about the project here....



Meet our new ERI Academic

We are delighted to welcome our newest ERI Academic, Dr Jenny Butler of the Study of Religions Department in CACSSS, and coconvenor of the UCC Eco-Humanities Research Group. Dr Butler conducts ethnological research in the area of religion and culture and is interested in spiritual connection to the land, nature, and wider environment. View Dr Butler's full profile here...



A Velvet or Violent Climate Revolution: which will we choose?

Renowned climate change expert <u>Prof Kevin Anderson</u> will be giving a guest seminar on **Mon July 10th at 2pm in room 1.28 of the ERI Ellen Hutchins Building** as part of An Taisce's 75th anniversary programme. If you would like to attend please RSVP to H.McMahon@ucc.ie

THE IRISH TIMES

Science

AI offers new approach to help cold-water corals



ERI in the Media

"If we understand the corals and their environment better, this can inform policies to protect ocean biodiversity. Our UCC project has built up a more detailed baseline of how the corals are now, and that means we can monitor them over time."

<u>- Dr Larissa Macêdo Cruz de</u> Oliveira

THE IRISH TIMES

Unusually large numbers of jellyfish being washed up on Irish shores

Barrel jellyfish, resembling 'cauliflowers' and normally seen in southeastern waters, are being recorded almost halfway around the Irish coastline



ERI in the Media

"Barrel jellyfish – so named because they can weigh up to 25 kilos – look scary but don't really sting.. The reports of their geographical spread began early in the year when we had 15 washed up in 30 days on our beaches."

newstalk

News

Ireland will soon have a 'Mediterranean style climate'

The earth is expected to warm 1.5°C above preindustrial levels by 2027.

ERI in the Media

"Basically, we're moving towards a more Mediterranean style climate in Ireland . Not a great place to have a Mediterranean climate - I'd rather keep it in the Mediterranean, quite frankly."

- Dr Chris Mays



ERI in the Media

"We should expect to see these wholesale electricity prices passed into consumer bills in the next 6-8 weeks."

-Dr Paul Deane



Female researchers take top awards



ERI in the Media

"About one in 400 electric vehicles are run on fuel cells... What we want is to develop a better technology to make the production of fuel cells cheaper and more affordable. We are talking to companies, about potentially using our technology."

- Dr Tom Doyle