A World Leading SFI Research Centre

Science Sfl Foundation Ireland For what's next

BEACON Bioeconomy Research Centre

BEACON Bioeconomy Research Centre harnesses the of the wealth of Ireland's natural resources on land and in the sea for the development of a sustainable circular Irish bioeconomy, enabling vibrant sustainable communities.



BEACON develops sustainable novel processes and products using biobased resources, creating clusters for new industry partnerships and delivering the expertise and trained workforce to translate new technologies into new sustainable products, processes, markets and industries.

Research Areas

- > Bioeconomy
- > Agri-Food
- > Marine
- > Advanced Materials
- > Renewable biological resources
- > Biotechnology/Biologics
- > Resilient and Resource-Efficient Value Chains
- > Rural Renaissance





Research programmes

BEACON will address 3 key interrelated research questions

- 1. Selective Separation
- 2. Conversion
- 3. Sustainability

Facilities

- HPLC coupled to size exclusion chromatography with refractive index detector
- > Q Exactive
- Varian Saturn 2000 GC-MS (ion trap) with GC olfactometry
- > NMR Spectroscopy
- > Mass Spectroscopy
- > Electron microscopy

Industry and commercialisation

BEACON collaborates closely with industry across the Agri-food and Marine sectors to convert residues and waste streams created during primary production processes to higher value products (including food/feed ingredients), creating new business opportunities and new value chains, enabling our partners to diversify and increase resource efficiency.

Through our partnerships we are stimulating rural regeneration, curtailing environmental damage, extracting healthy nutritional supplements, reducing import dependency, and developing human capital.

Industry partners include:

- > Alltech
- > BHSL
- Bioatlantis Ltd
- > Commercial Mushrooms Producers
- > Glanbia
- > HJL Scientific Ltd

- > Monaghan Mushrooms
- Nucleus VP Energy

Education and Public Engagement:

BEACON's public engagement programme focuses on enhancing the public understanding of bioeconomy and its impact on Irish society.

Research outputs from BEACON's Sustainability Platform informs and supports dissemination activities, including the development of the knowledge hub which integrates emerging knowledge from the Centre for engagement with consumers, society, industry, investors, researchers, regulators and policy makers.

Key Contacts

Prof Kevin O'Connor Director kevin.oconnor@ucd.ie

Prof Kevin O'Connor, University College Dublin, is shaping the European Bioeconomy Strategy through his chairmanship of the Scientific Committee for the \in 3.7bn PPP (Bio Based Industries). He has been at the forefront of national developments and was instrumental in securing EU Model Demonstrator Region (MDR) status for the Southeast, drawing together stakeholders from industry, academia and policy-makers from Tipperary County Council. He is a champion for the step-change a bioeconomy can deliver to the Irish economy and society. He is a PI on EU projects researching synthetic biology (P4SB) and biobased products (SYNPOL). Consequently, he is very strongly networked with leading industries, academic institutions and policy makers in the bioeconomy. He is the recipient of Nova UCD Innovation award 2016. **Prof Nicholas Holden** Deputy Director

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BEACON Bioeconomy Research Centre

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