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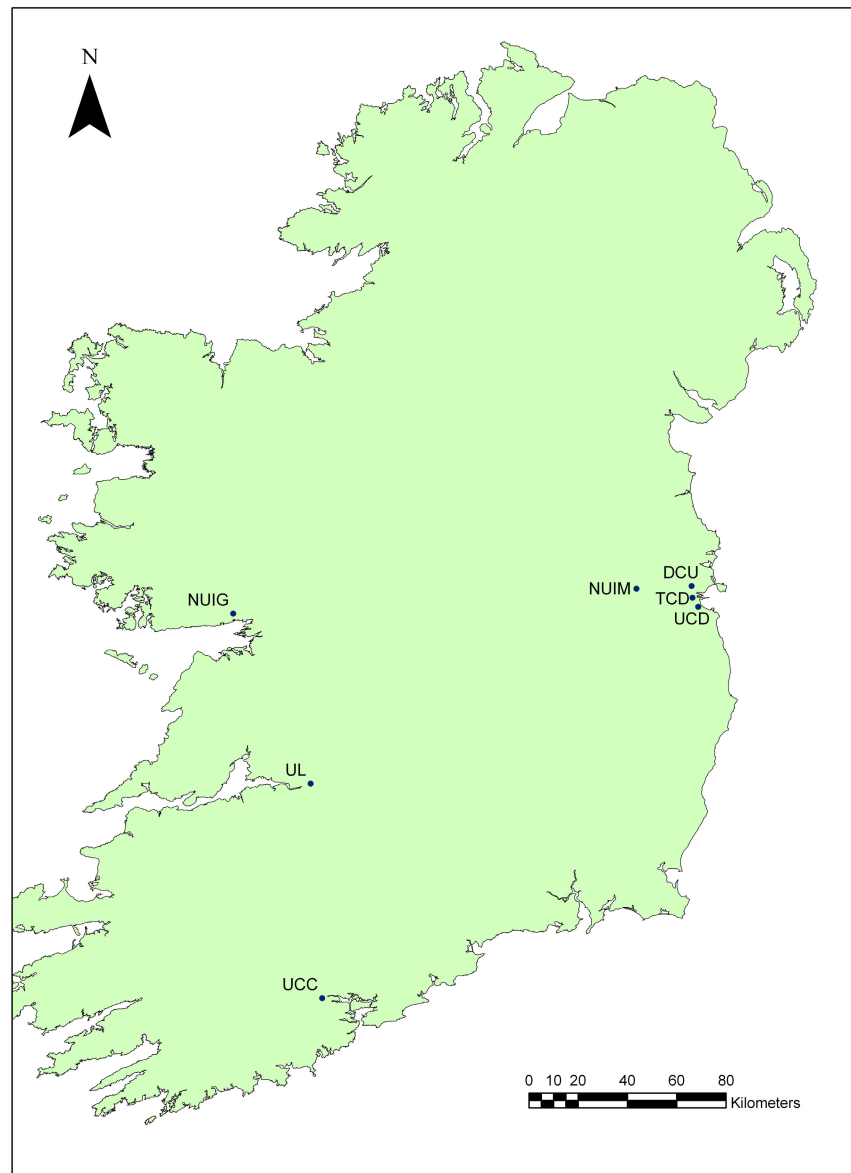
Emerging Priorities in Environment and Health Research in the Atlantic University Alliance Region of Ireland – from A^{ir} to Z^{oology}

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Atlantic University Alliance



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Established in 2000



Inter-disciplinarity



Cross-Faculty



Strong Collaboration within AUA



€32 million in Research Funding

Strengths

-  Multidisciplinary
-  5 Faculties and 20 Departments
-  7 Priority Research Areas
-  Collaboration
-  Significant Funding



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Emerging Priority Areas for FP7

- **Climate Change/Global Warming**
- **Bioindicators**
- **Water Quality**
- **Renewable Energy**
- **Biodiversity**

Climate Change/Global Warming



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Trace Gas Research

- Monitoring baseline air quality
- ID sources of particulate matter in air but link to health impact

Aerosol Research

- ✚ Physical/Chem properties of aerosols & gaseous species in the marine coastal environment & role in global climate change.
- ✚ Aerosols in work environment – indoor air pollution
- ✚ Land-spreading of animal manures/sewage sludge/wastewater treatment systems – generation of Bioaerosols



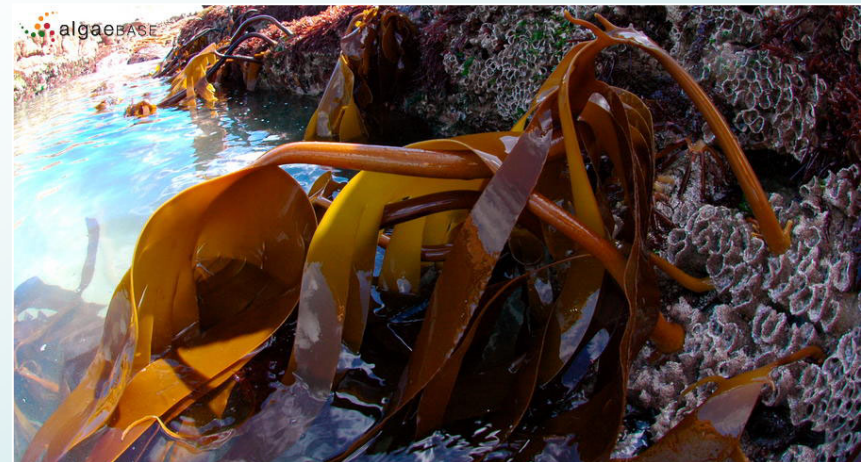
Mace Head Research Facility

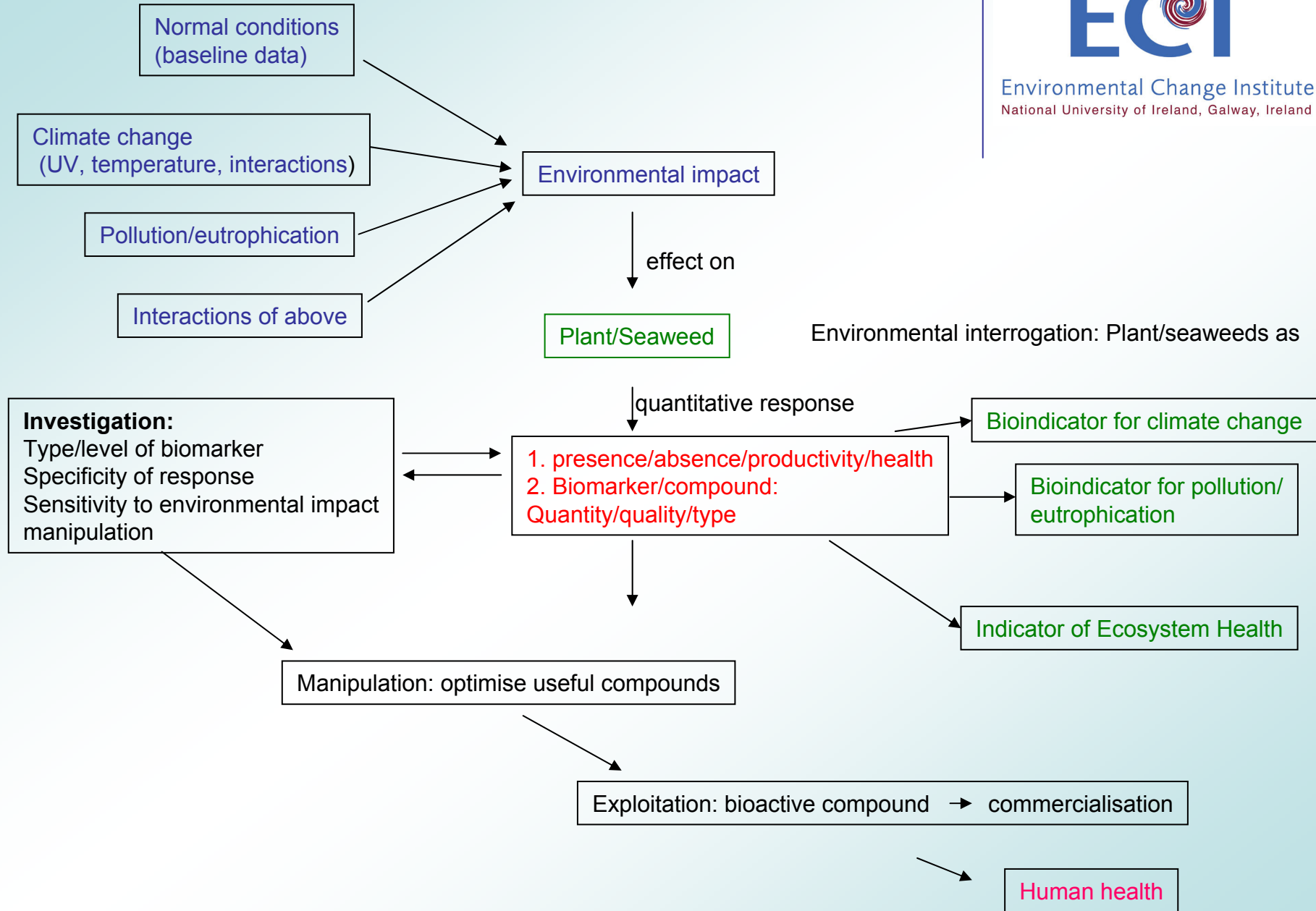
Bioindicators



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- ✚ Use of biological species, as indicators of environmental pollution/climate change
- ✚ Algae, plants, human cell lines
- ✚ Potential impacts on health





Water Quality



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- ✚ Microbial contamination of drinking water
 - ID sources of contamination
 - Rising incidence of cryptosporidium
 - Agricultural impacts on water quality
 - Source tracking – differentiation of origin
 - Linking clinical data with monitoring data
 - Using GIS to map epidemiological data

- ✚ Mapping Pollutants

- ✚ Wastewater treatment – improved technologies

Renewable Energy



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- ✚ **Development of biofuels from renewable sources**
- ✚ **Alternative energy (methane) production from biomass**
- ✚ **Wind and wave energy**



Biodiversity



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Animal



Plant



Microbial



While we can replace lost habitats we cannot
replace lost Biodiversity



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Thank you for your
attention