



# Mapping of UK bioenergy stakeholder expertise - Preliminary results -

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## INTRODUCTION

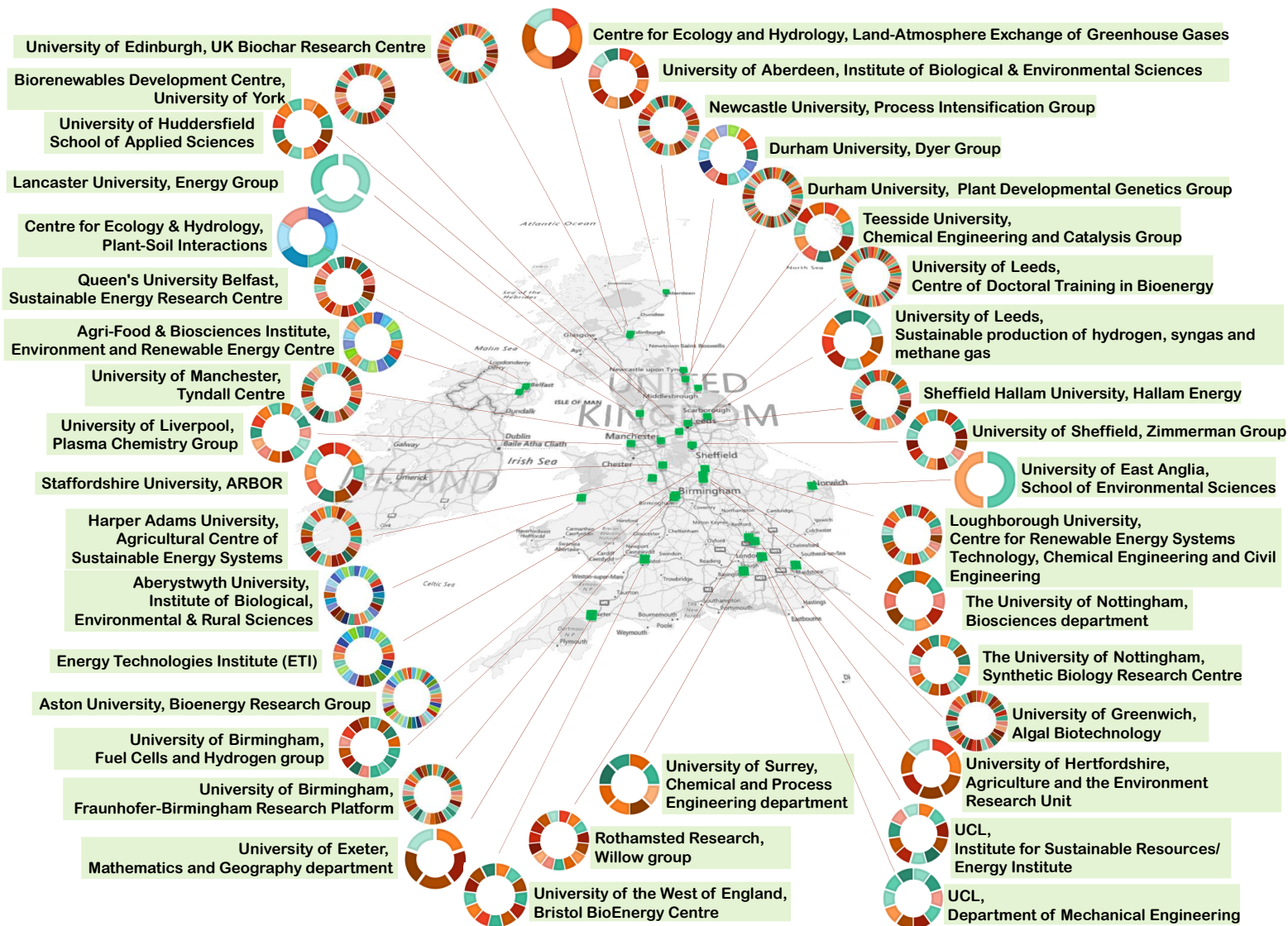
Bioenergy has been the largest renewable energy contributor for several decades but still needs tripling to meet global energy supply targets by 2050. Bioenergy stakeholder engagement is necessary to overcome these challenges.

In this study, bioenergy research activities of institutes and groups across the UK are mapped and preliminary results are shown from **38 organisations**.

## METHODOLOGY

This mapping exercise is stakeholder oriented. It has been strategically designed based on bibliographic searches, insight into previous experiences in SUPERGEN Bioenergy and a careful study of members of SUPERGEN Bioenergy. The goals are to improve research collaboration, identify gaps in expertise and define future prospects for bioenergy in the UK.

## RESULTS – BIOENERGY MAP



- 1.1. Impacts on biodiversity
- 1.2. Impacts on air, soil and water
- 1.3. Impacts on economy and society
- 1.4. Bioenergy regulatory framework
- 1.5. Sustainability
- 1.6. Influencing public dissemination
- 1.7. Other activities in this category
- 2.1. Energy crops
- 2.2. Forestry
- 2.3. Algae
- 2.4. MSW and commercial waste
- 2.5. Biomass residues and waste
- 2.6. Biomass characterisation & analysis
- 2.7. Handling & logistics
- 2.8. Other activities in this category
- 3.1. Physical processing
- 3.2. Biomass and waste pre-treatment
- 3.3. Fractionation
- 3.4. Torrefaction
- 3.5. Other processes in this category
- 4.2. Thermal.Gasification
- 4.3. Thermal.Pyrolysis
- 4.4. Thermal.Hydrothermal conversion
- 4.5. Thermal.Torrefaction
- 4.6. Thermal.Other processes in this category
- 4.7. Biochemical.Hydrolysis
- 4.8. Biochemical.Fermentation
- 4.9. Biochemical.Anaerobic digestion
- 4.10. Biochemical.Enzymes and microorganisms
- 4.11. Biochemical.Other processes in this category
- 4.12. Upgrading.Catalysis
- 4.13. Upgrading.Plasma
- 4.14. Upgrading.Particulate removal
- 4.15. Upgrading.Other processes in this category
- 4.16. Related.Subcritical/Supercritical conversion
- 5.1. Characterisation and analysis
- 5.2. Product testing and evaluation
- 5.3. Synthesis, upgrading and refining
- 5.4. End-product versatility
- 5.5. Product transport infrastructure
- 6.1. Crop modelling
- 6.2. Spatial modelling
- 6.3. Process modelling
- 6.4. Energy balance assessment
- 6.5. Life cycle assessment
- 6.6. Techno-economic assessment
- 6.7. Whole system assessment
- 6.8. Market analysis
- 6.9. Environmental analysis
- 6.10. Value chain analysis
- 6.11. Other activities in this category
- 7.1. Process optimisation
- 7.2. Process integration
- 7.3. Scale up
- 7.4. Demonstration
- 7.5. Commercialisation opportunities
- 7.6. Carbon capture and storage
- 7.7. Other activities in this category

## SOME EXPLANATIONS

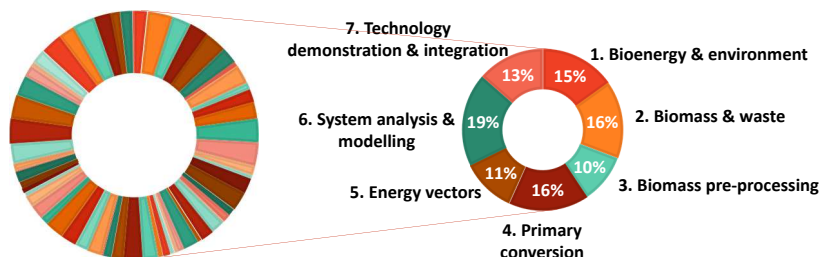
The report from this study will be published later this year at national and international levels.

The exercise is open to every research group involved in bioenergy in the UK.

It shows the main activities in bioenergy in the UK.

More complete results will be more useful to stakeholders in bioenergy.

Please, participate in the mapping exercise!



## Summary of research activities in bioenergy in the UK

Supergen Bioenergy Reports (April, 2017)