

Bioenergy



Professor Paul Mitchell

University of Aberdeen



Bioenergy



Key Advantages of Biomass

- Widespread availability
- Contributes to security of energy supply
- Can provide heat, electricity and transport fuels
- Can be stored and used on demand
- Employment opportunities, especially for rural areas
- Opportunity for C sequestration
- Reduced CO₂ & other emissions
- Potential business opportunities
- Contribution to balanced development of agriculture
- Potential positive impacts on biodiversity

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Different from other renewables

Can control the inputs through the production systems



Can produce a range of energy sources depending on conversion technology



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Main sectors



- Biomass production and supply
- Bio-heat
- Bio-electricity
- Bio-fuels



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Strengths in Scotland

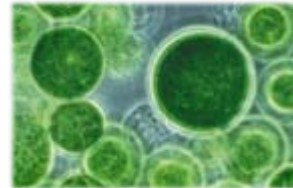


Production & supply



University of Aberdeen
University of Dundee
University of Glasgow
UHI/Orkney

Algae



University of Aberdeen
University of Glasgow
UHI/SAMS

Biofuels



University of Aberdeen
University of Dundee
Napier University

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R&D Challenges



Biomass Production & Supply

- Improving costs & production
- Manipulating feedstocks for better conversion

Bio-heat

- Increase efficiency & reduce costs
- Reduce emissions

Bio-electricity

- Cost effective CHP Systems
- Co-firing with coal

Bio-fuels

- Developing 2nd & 3rd generation processes
- Developing biorefineries

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Thank you

