# The Carbon Recycling Network

A BBSRC Network in Industrial Biotechnology & Bioenergy (NIBB)

Nigel P Minton











# The Challenge



- Greatest challenges facing industry and society are the future sustainable production of chemicals and fuels from non-food resources while at the same time reducing GHG emissions & pollution
- To date, the focus has been on the use of lignocellulosic biomass feedstocks
- Reliant on an energy intensive pre-treatment step, and thereafter, the addition of costly exogenous hydrolytic enzymes needed to convert the partially deconstructed biomass into the sugars needed by the fermentative process organisms
- The costs involved are making the development of economic processes extremely challenging



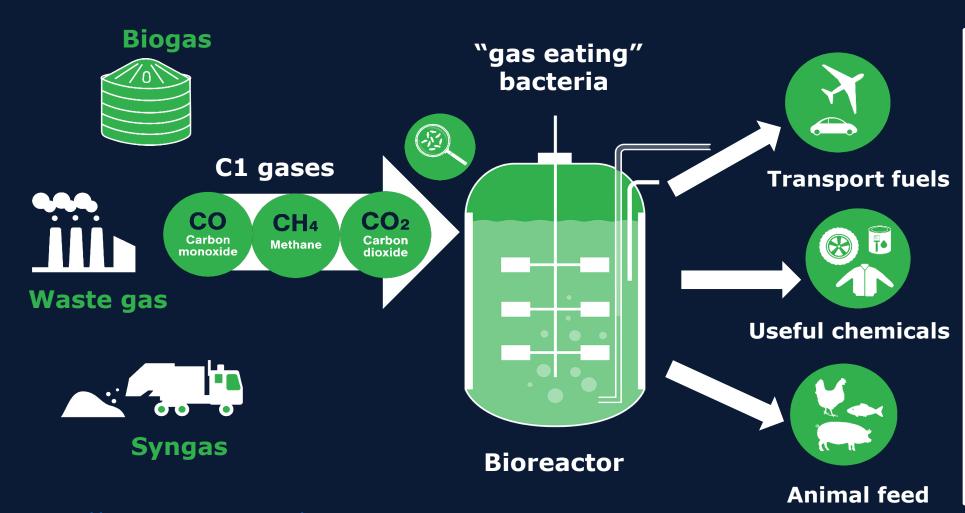






## The Solution





#### Advantage

- uses cheap, plentiful waste
- no competition with food for land
- carbon neutral,doesn't add togreenhouse effects
- sustainable and secure
- breaks reliance on oil & petrochemicals

https://carbonrecycling.net/?wvideo=ory7er6td3



### The Network



Biotechnology and Biological Sciences Research Council

Management Board Members



Nigel Minton Nottingham (PI)



Sonia Heaven Southampton (Col)



Mark Poolman Oxford Brookes (Col)



Saul Purton UCL (Col)



Brigitte Nerlich Nottingham (Col)



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484 Members



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#### **Proof of Concept Awards (POCs)**

'Industrial Decarbonisation: Challenges & Opportunities'

5 X Proof of Concept Awards made @ £309K



## Upcoming ....



