

Supergen



Supergen Bioenergy Hub

supergen-bioenergy.net

We work with academia, industry, government and societal stakeholders to develop sustainable bioenergy systems that support the UK's transition to an affordable, resilient, low-carbon energy future.

Supergen Bioenergy Hub



Supergen
Bioenergy

Vision for UK Bioenergy

- Up to 45% of UK bioenergy demand¹
- 10% electricity (baseload)
- 50% heat (industrial, district, gas)
- 20% liquid fuels (aviation, shipping, heavy duty/mobile plant)

1. Welfle A., Gilbert P., Thornley P., Securing a bioenergy future without imports, Energy Policy, vol 68, 2014



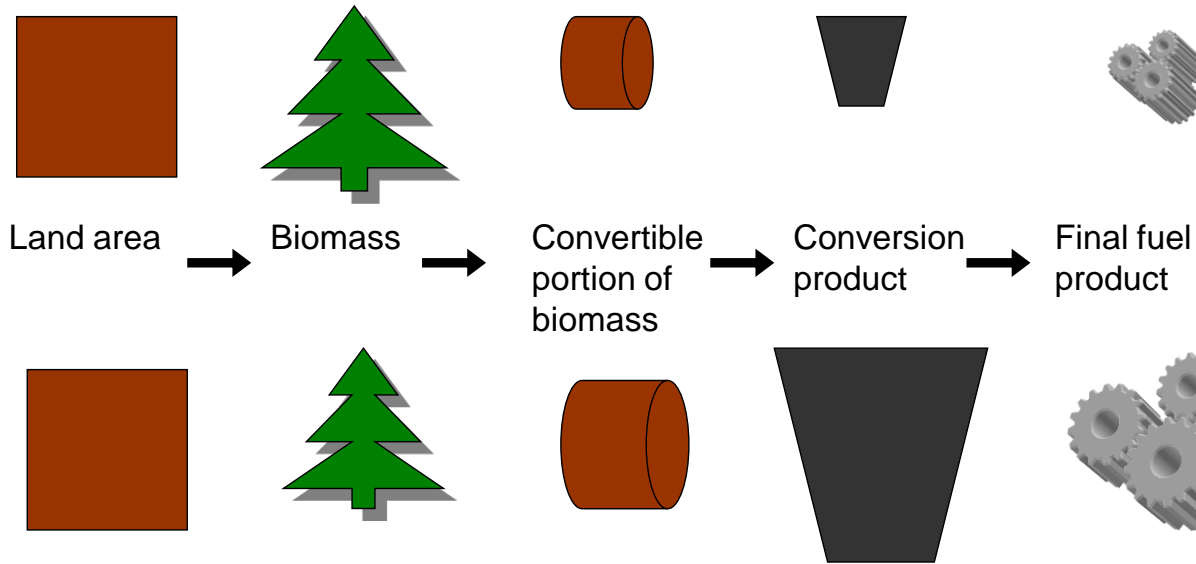
Evolution of UK Bioenergy

- Near term flexible heat and power (diverse feedstocks, pollutants, materials, ecosystem benefits, circular economy, pre-treatment)
- Medium term fungible hydrocarbons (catalysis, pre-treatment, yield increases)
- Long term gaseous vectors (gasification, AD, hydrogen) and negative emissions



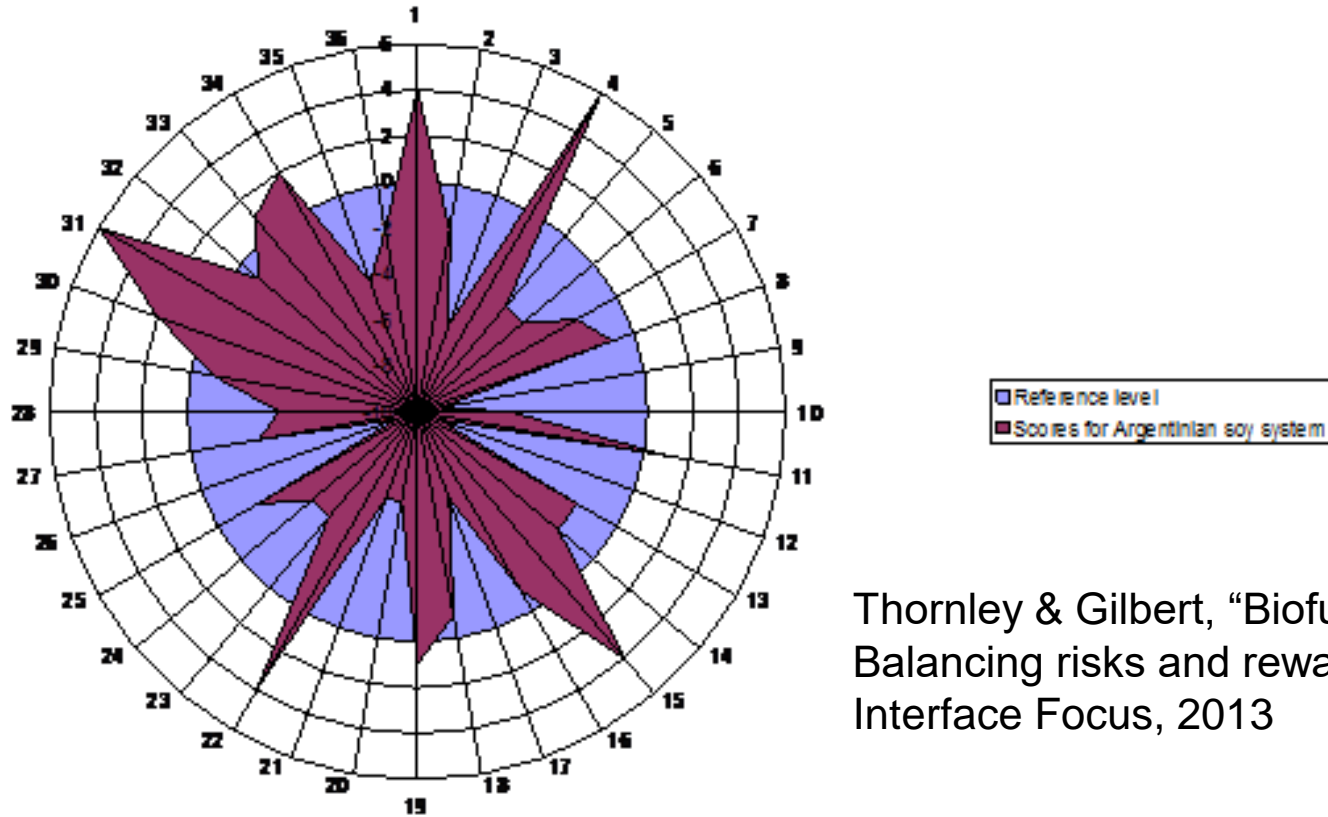
Ensuring sustainability (1)

First generation



Second generation

Ensuring sustainability (2)



Thornley & Gilbert, "Biofuels: Balancing risks and rewards", Interface Focus, 2013

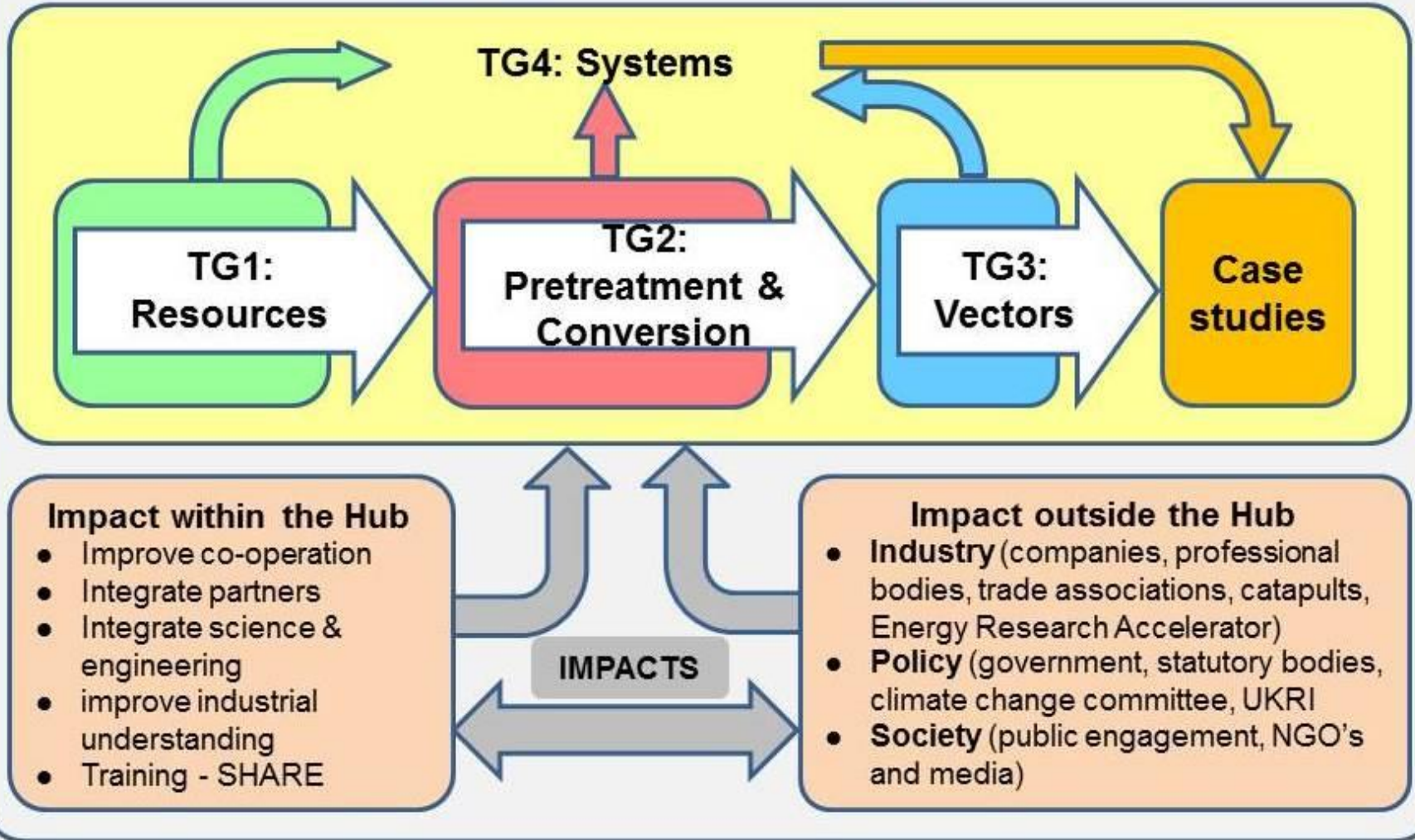


UK challenges

- Carbon budget commitments
- Sustainability beyond carbon
- International import base
- Governance framework: risk focused; incentivizes best; recognizes trade-offs and institutional capacity



Supergen Bioenergy Hub



Our members



UNIVERSITY OF LEEDS



Supergen Bioenergy Hub



Follow us



@SupergenBioHub



Supergen Bioenergy Hub

Visit supergen-bioenergy.net

Email supergen-bioenergy@aston.ac.uk to sign up to the mailing list

Supergen Bioenergy Hub



Supergen
Bioenergy

EPSRC UK Research and Innovation BBSRC UK Research and Innovation