



GLOBAL  
RESEARCH  
ALLIANCE

ON AGRICULTURAL GREENHOUSE GASES

# Country report : UK

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Presentation to IRG Annual Meeting  
Cali, 5 February 2019

# Specific contributions to IRG

## Contributions of UK to IRG:

Space scale

Projects/studies

**national to global**

**SOILS-R-GREAT**

**watershed**

**iCASP**

**farm**

**Smart agriculture farm observation**

**field**

**Quantification of potential SOC mitigation in UK**

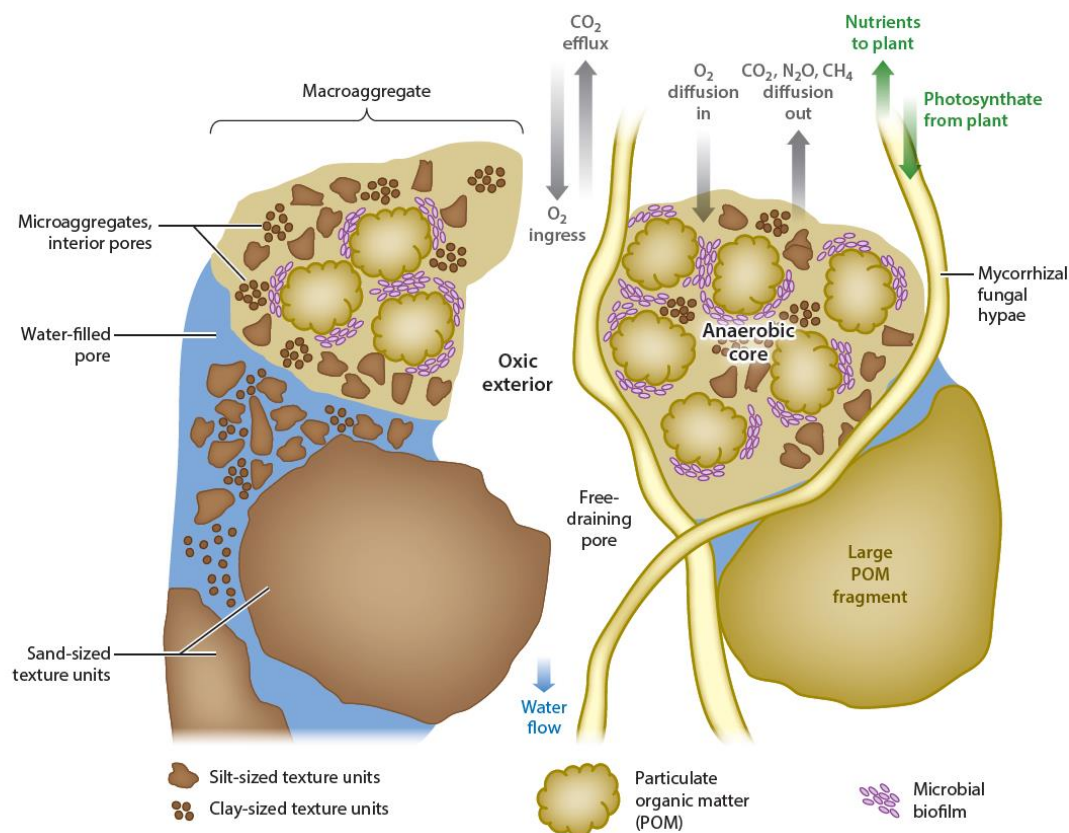
**soil aggregates**

**Locked up**

# Projects, initiatives and contributions to IRG's topics

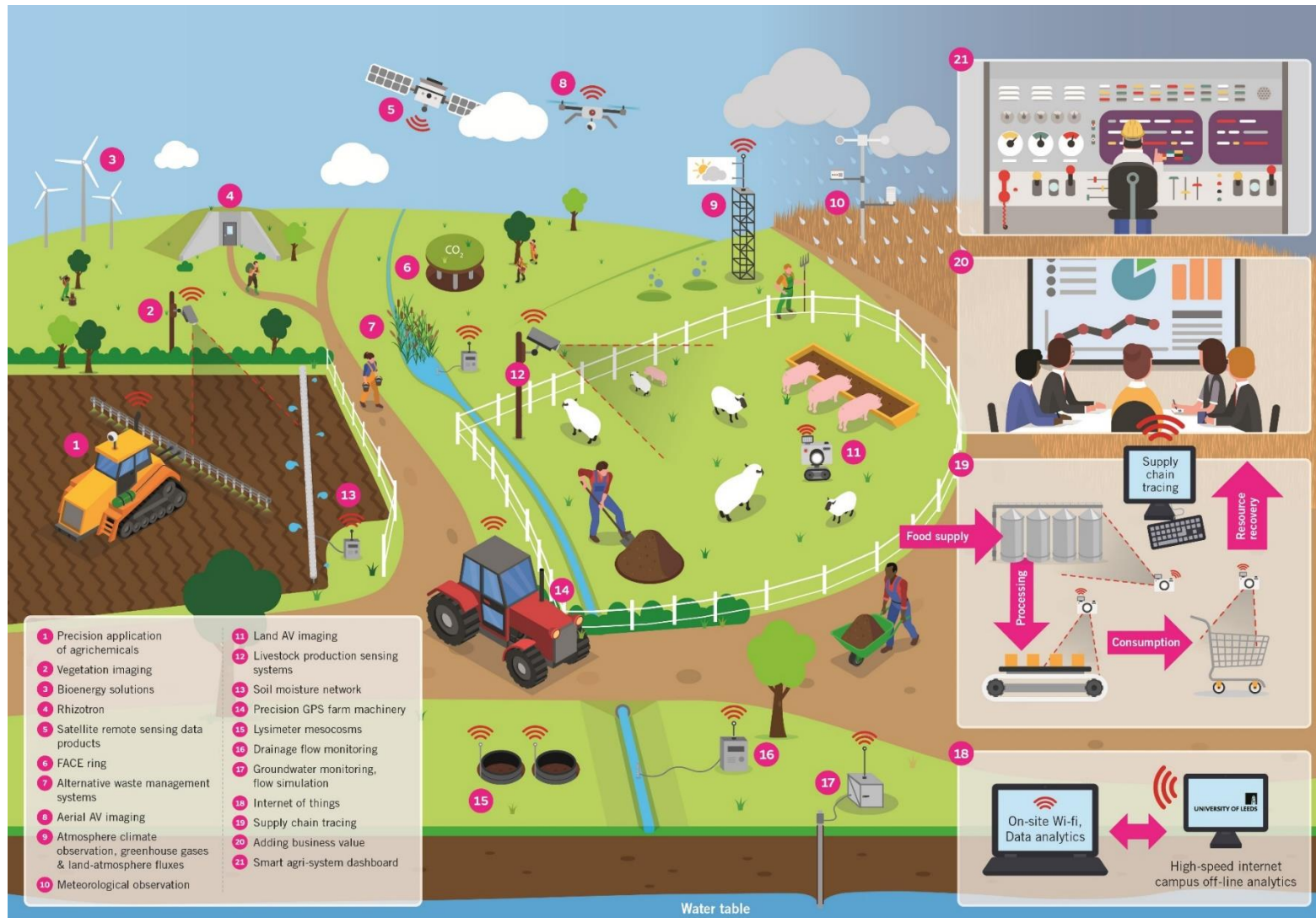
**Locked Up** – **£1.8 million** grant from NERC to investigate biotic and abiotic interactions in SOC stabilisation and persistence. Involving: NERC Centre for Ecology and Hydrology, Lancaster University, and University of Leeds.

The research will focus on the aggregate scale to understand biological and mineralogical interactions with dissolved and particulate organic carbon.



# Projects, initiatives and contributions to IRG's topics

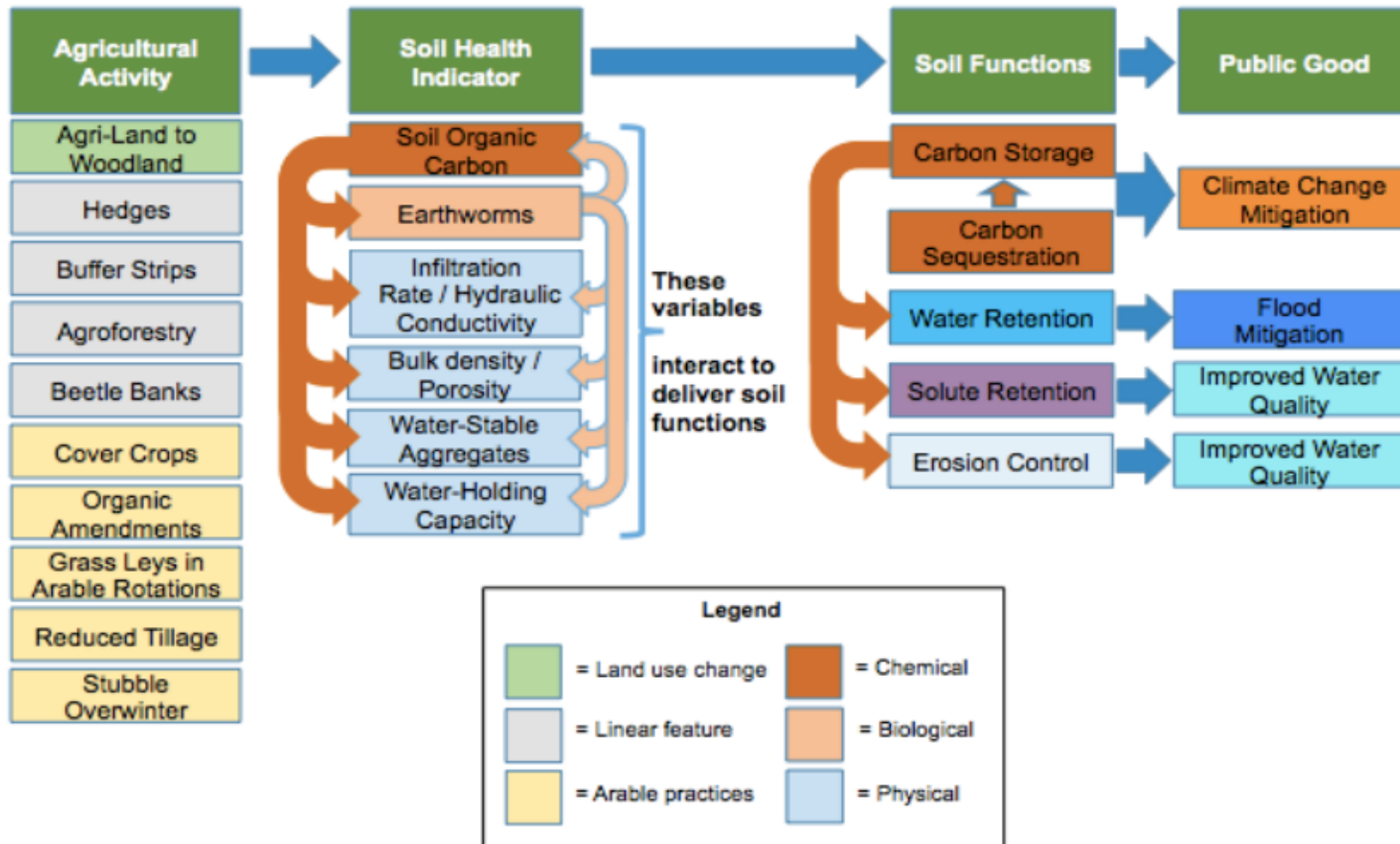
## University of Leeds Global Food and Environment Institute (GFEI):



Water table

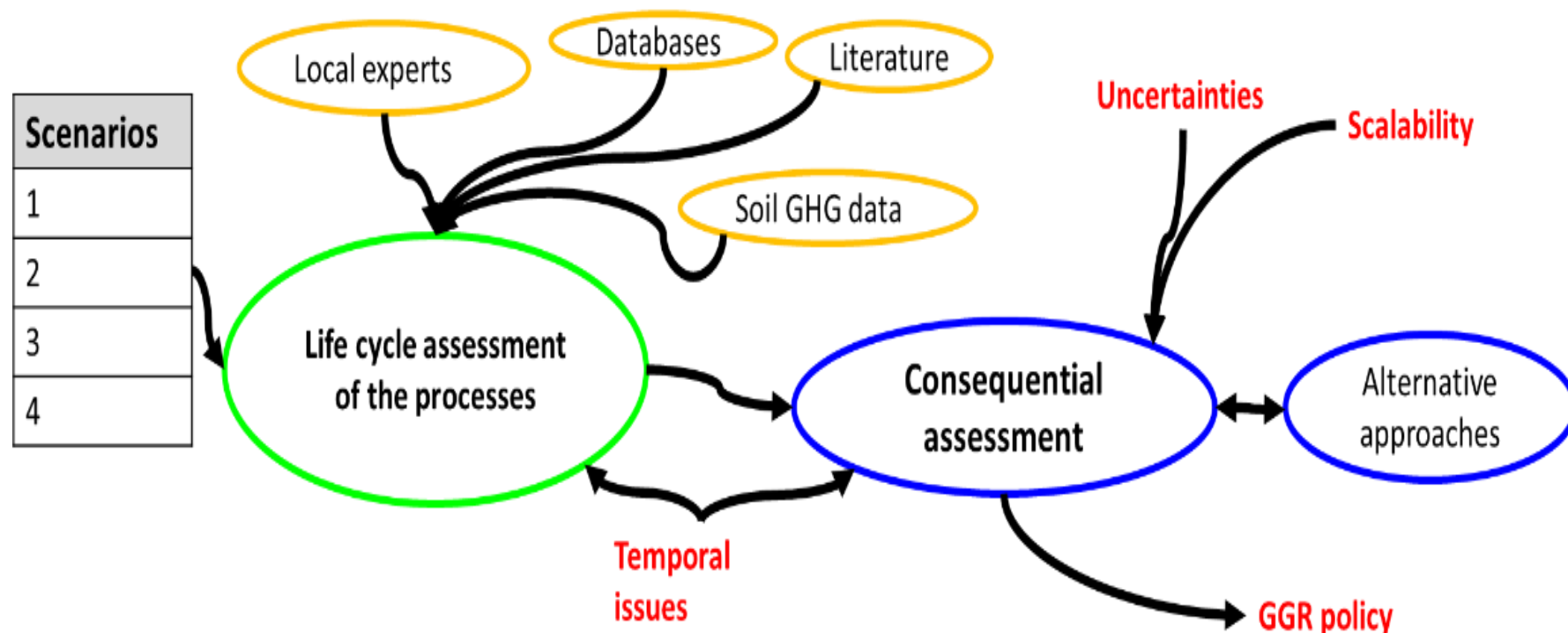
# Projects, initiatives and contributions to IRG's topics

**iCASP:** Yorkshire Integrated Catchment Solutions Programme Public Goods Review on Soil Health <https://icasp.org.uk/resources/public-goods/>



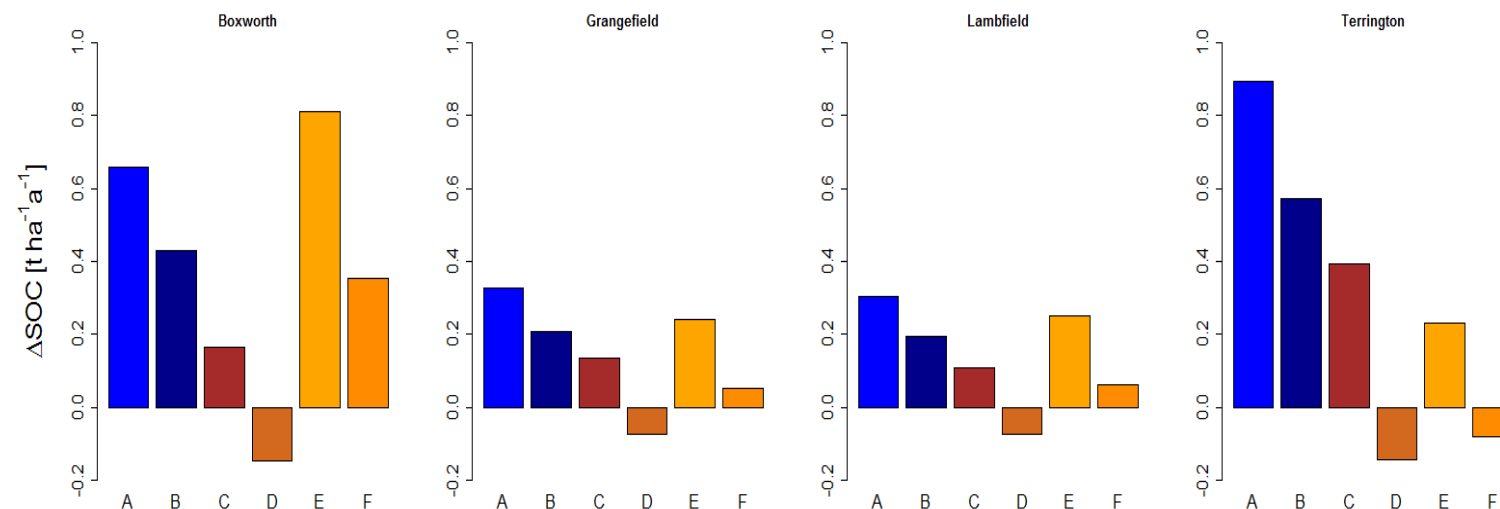
# Projects, initiatives and contributions to IRG's topics

**Soils-R-GRREAT:** Soils research to deliver technologies and approaches for greenhouse gas removals (GGR). The project assess, identify and analyse the impact of different GGR options. Beside a life cycle assessment, the approaches will be additionally analysed for economic impacts



# Projects, initiatives and contributions to IRG's topics

Quantifying potential SOC mitigation options for wheat fields in UK. This study aims to detect the potential of different mitigation options to increase SOC. The impacts will also be tested for changed climate conditions.



70 % **residues** left in the field (A), 50 % **residues** left in the field (B), **low tillage** (C), **reduced fertilizer** application (D), **manure** application (E) and reduced N application as manure (F).

# Opportunities, future actions and funding

- Ongoing calls on soils, land use and climate change from UK research councils (mainly BBSRC and NERC – now all under UKRI) – through standard research projects and focal topics (such as the NERC Soil Security Programme and the Greenhouse Gas Removal Programme)
- Many possibilities through the Global Challenges Research Fund (GCRF) – mainly targeting projects in developing countries. More GCRF funding expected in the coming years
- Future EU funding is at threat under the enormous black cloud of BREXIT – the world's most prominent example of wilful national self-harm.



**Thank you for your attention!**