

# Live Labs II: WSCC & SGC: Carbon Assessments

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## What it will look like...



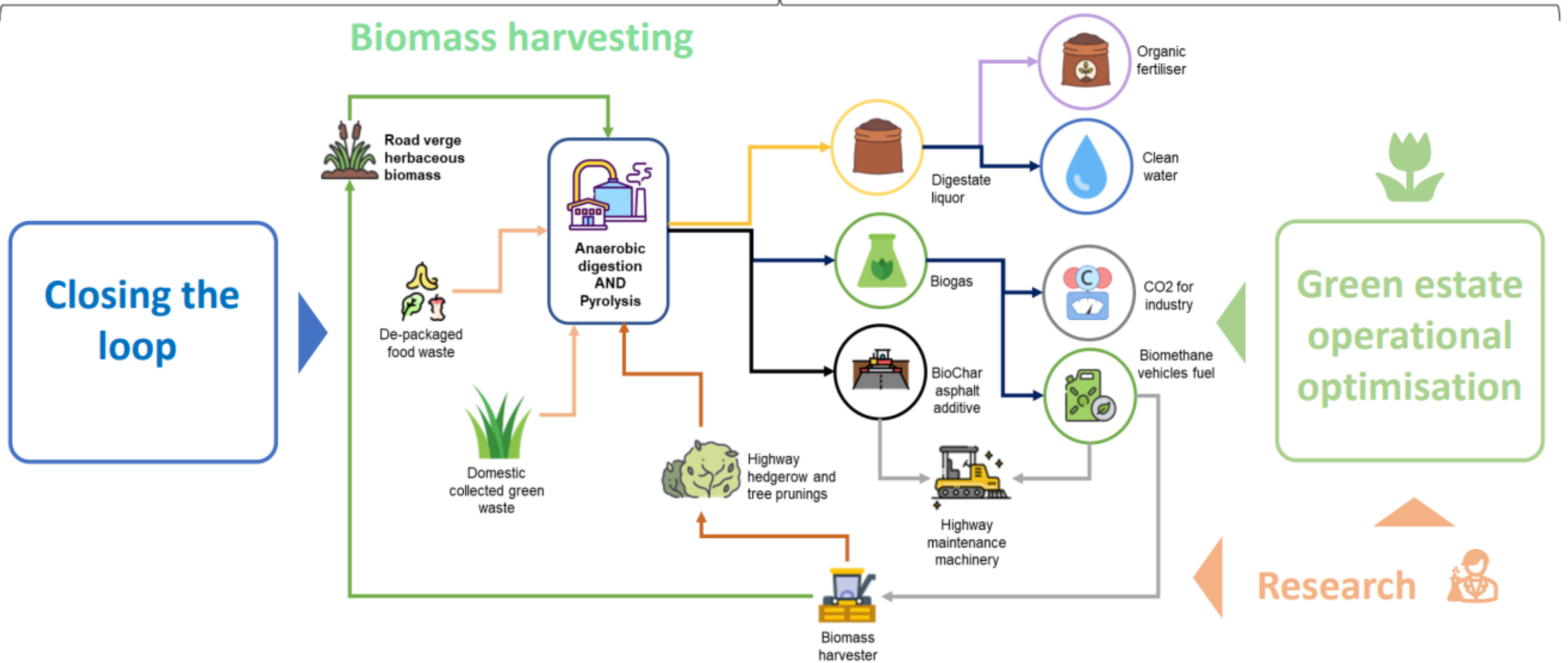
Anaerobic digestion



Hydrochar Biochar

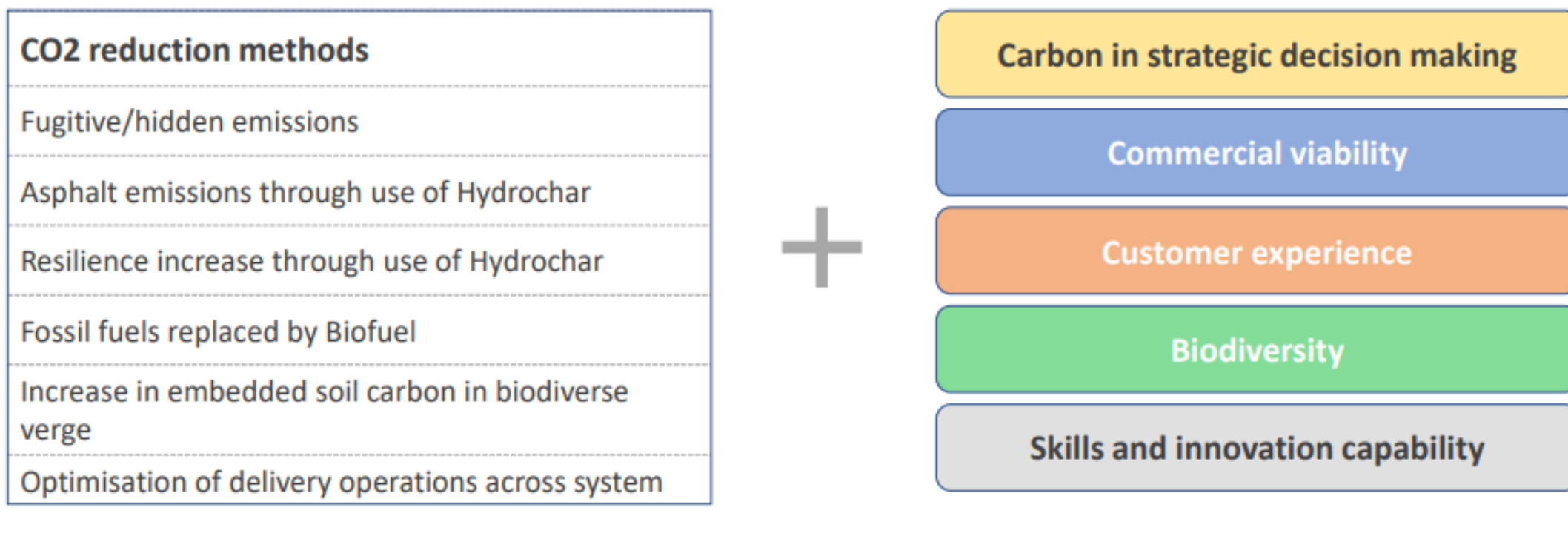


# A unified programme across both councils



## Carbon monitoring and value assessment

The project removes carbon emissions in **six** ways – each of these have distinct measurement and data collection strategies + wider outcomes



# The project will aim to:-

1. Set a replicable methodology to collect data and measure carbon emissions.
2. Create and consolidate a baseline of current carbon emissions.
3. Map and identify fugitive emissions.
4. Track and record carbon emission during the lifecycle of the project.
5. Secure a long-standing methodology.

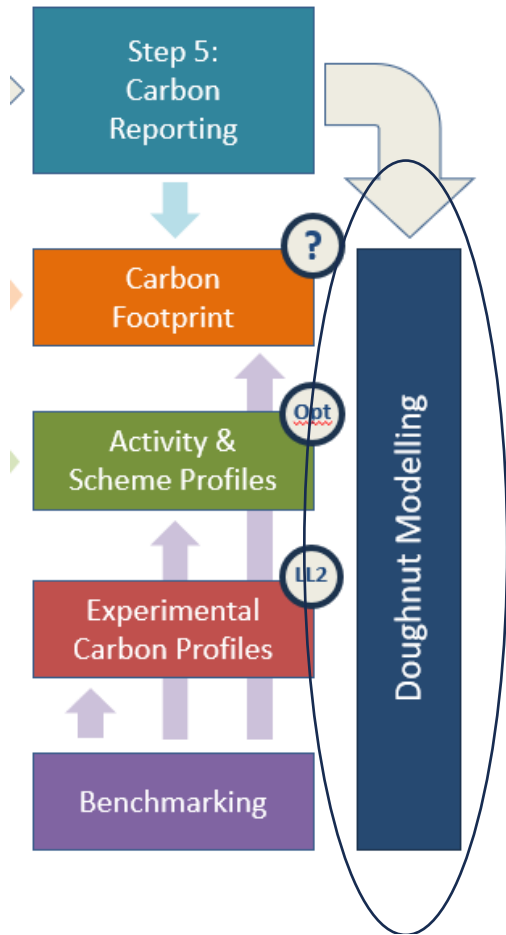
# Work Streams – Quantitative Analysis

- **Work stream 1 - Baseline Carbon Emissions/current activity carbon assessment - (Delivery Partner – FHRG - UWE)**
  - Some challenging carbon boundaries ref waste i.e. Anaerobic digestion, Windrow, Pyrolysis
- **Work Stream 2 – Fugitive Emissions Baseline - (Delivery Partner – UWE )**
  - Assessment of emissions from cut and leave and from AD/Pyrolysis
- **Work Stream 3 - Soil Carbon Baseline –(Delivery Partner - Plant life/UWE)**
  - local variation dependent on various factors including geology and historic land use
- **Work Stream 4 Carbon Emissions from new treatment processes - (Delivery Partner – Genico and Pyrolysis Provider TBC )**
  - calculation of and proportioning life cycle emissions based on throughput? Disposal of digestate and impact on soil carbon/nitrate absorption.

# Work Streams – Quantitative Analysis Cont...

- **Work Stream 5 Carbon ‘insetting’ form the new model of operations.**
  - Measurement of soil carbon enhancement, measurement of biomethane production from mixed food/grass digestate.
- **Work Stream 6 – net Carbon Value of Process Outputs vrs existing material**
  - use/application of biomethane, carbon value of Bio/hydrochar dependent on purpose
- **Work Stream 7 – ‘Bringing it all together’ Evaluation, Reporting and Defining the New Model**
  - How to account for local variation in devising carbon factors e.g. digestate going to landfill !

# Applying the Doughnut!



- A platform to stack the benefits i.e. biodiversity, NFM.
- Consistent with South Glos's Climate and Nature Decision Wheel.





**Greenprint** will sit at the heart of our innovation and sustainability programmes over the next 5 years