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ADEPT
Association of Directors of Environment, Economy, Planning & Transport

ADEPT LIVELABS2 Decarbonising Local Roads

Giles Perkins FCILT, Programme Director

June 2026

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£30m innovation fund

7 Live Labs

4 themes

4 nations

Carbon baseline and measurement

Methodologies, products and services

Longitudinal monitoring & evaluation

Year 4, amplify and accelerate

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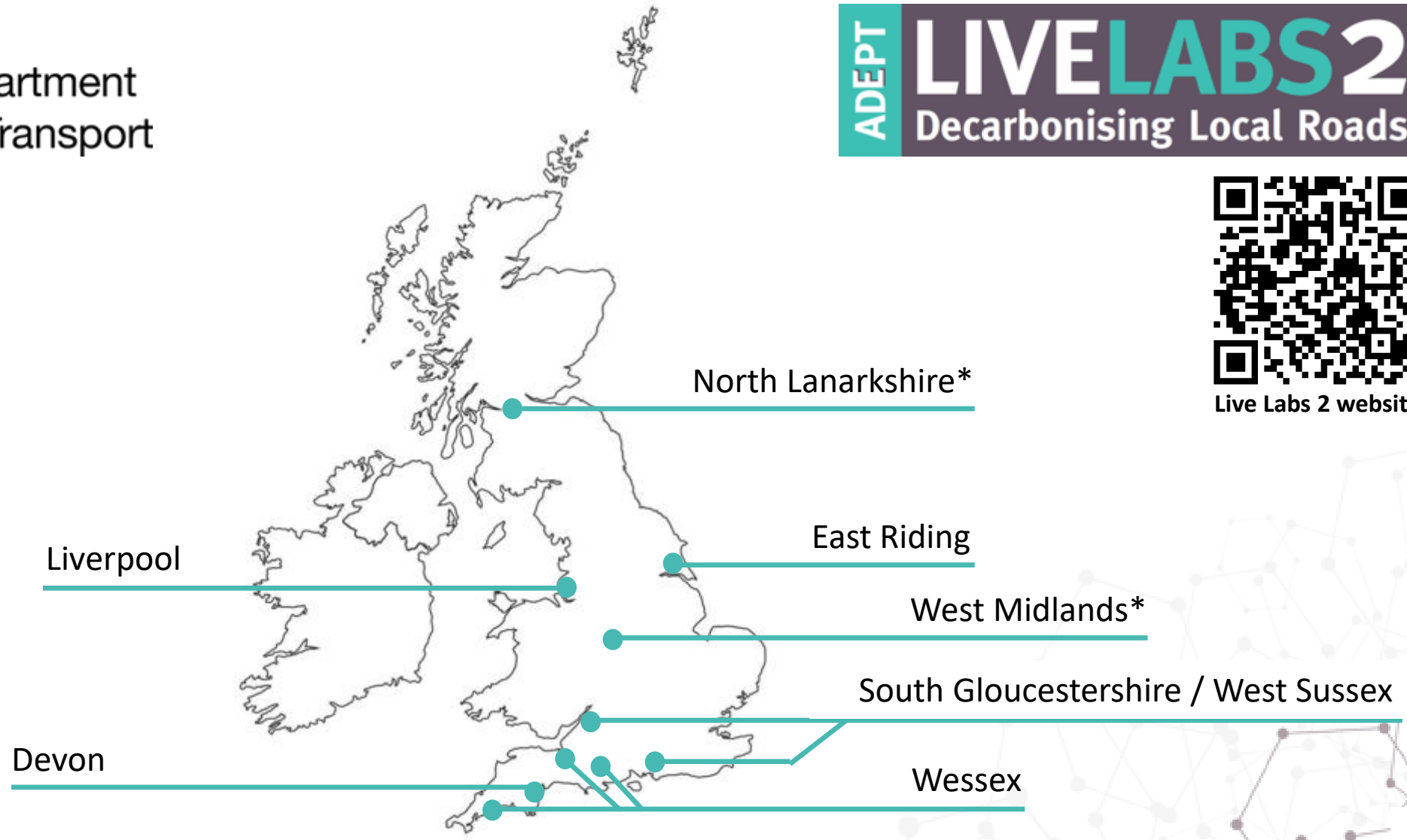
Live Labs 2 website



*CEDR

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Four thematic areas

- Centre of Excellence for Decarbonised Roads (CEDR)
- Corridors and Places
- Street Lighting
- Green assets & infrastructure

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Strategic & tactical interventions

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Key benefits

Cost – capital & revenue

Time – to deploy and maintain

Planet – carbon and other impacts

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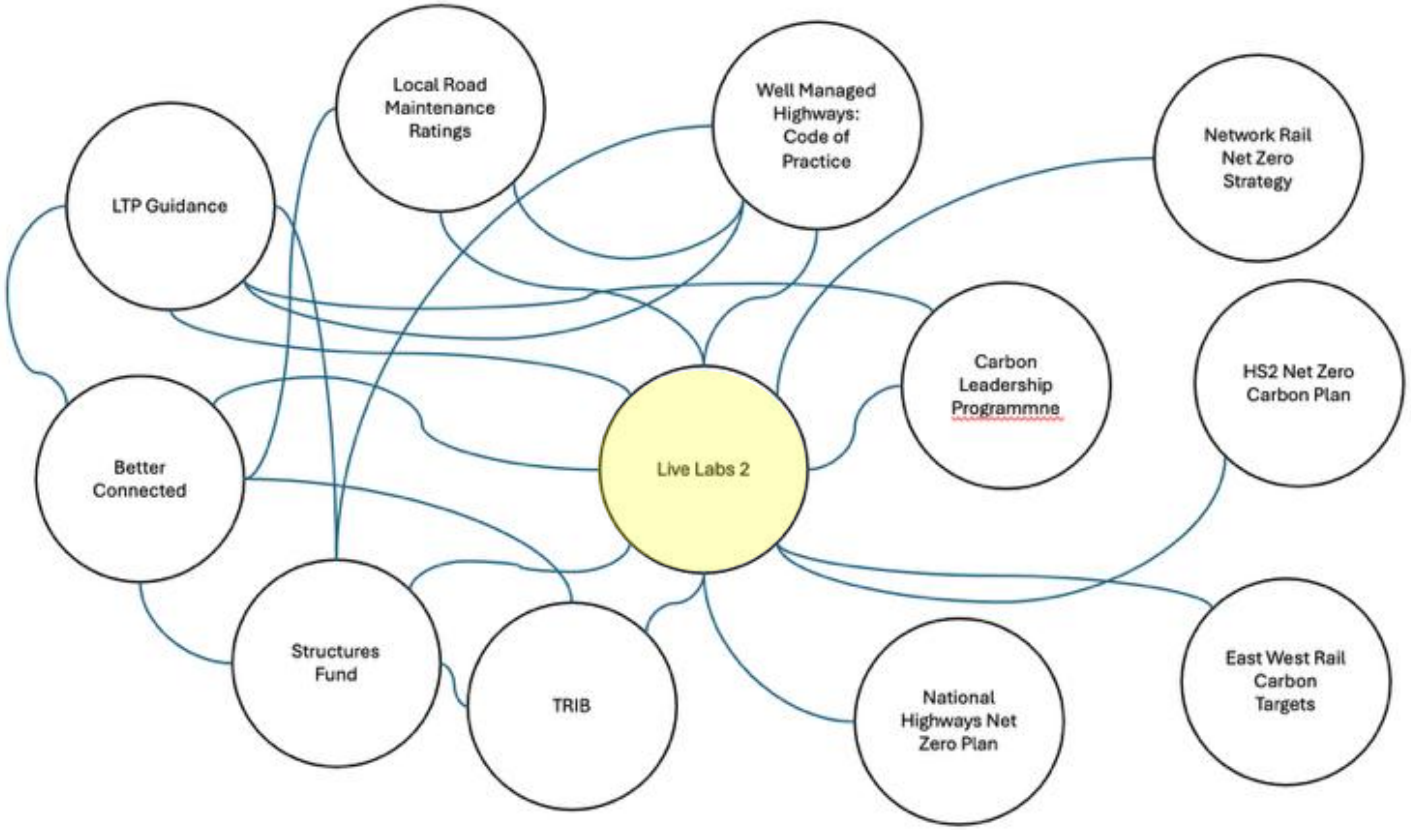
Systematic contributions



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"I want to set you a challenge as local leaders: Get involved with Live Labs 2. Not just as an observer, but by getting stuck in… By learning… And by sharing successes, so that local triumphs can benefit the whole nation".

Simon Lightwood, MP, Parliamentary Under-Secretary of State for Local Transport

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Statutory guidance, Local transport plans

> As part of local transport outcome frameworks, LTAs must report on the carbon emissions of their local transport projects. LTAs will need to report on both the user and infrastructure emissions of schemes included in their local transport delivery plans.
>
> LTAs must also use QCG when developing their LTPs. However, LTAs can decide how to apply the different approaches set out in QCG flexibly and subject to their local needs and circumstances.
>
> QCG should be used by LTAs early in the development of their LTPs to consider how transport emission can be reduced as part of their LTP. This will provide the greatest opportunities to reduce the amount and costs of carbon emissions.

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Local highways maintenance transparency report

B9 – Adapting roads to withstand climate pressures

Climate and environmental factors, such as heavy rainfall, prolonged heat, and freeze-thaw cycles, are integral to effective highways asset management, as they influence asset performance, deterioration rates and long-term resilience. Understanding both the impacts of a changing climate and the carbon implications of maintenance activities supports better decision-making, helping authorities to optimise durability, manage risk and deliver best whole life value from their assets.

	None of the above	Yes / No
9.1.6	Have you measured and benchmarked the greenhouse gas emissions from your highways maintenance service using a recognised industry standard? Or do you have arrangements in place to do this, such as by signing up to the DfT funded ADEPT Carbon Leadership Programme.	**Yes / No**
9.1.7	Have you formally engaged with the DfT funded ADEPT live labs 2 Programme, to understand what lessons your authority can utilise to increase the efficiency of your operations and support decarbonisation efforts?	**Yes / No**

CEDR (North Lanarkshire & West Midlands)

Centre of Excellence for Decarbonising Roads

1. **Demonstrator Trials**
2. **Knowledge Bank Development**
3. **Industry Engagement**

KNOWLEDGE BANK
A central resource for data, tools and insights

Home | Materials | Case Studies | Carbon Calculator | Search | Community | Sign up | Sign in

Case Studies

Grid | Map

Search by: Name

Search

Showing 19 results

Page Size: 12

Sort by: Date

Line Marking - Transverse

Eco Hibrite | Eco Hibrite AR | Pumabrite | Spectrum ECO Versaline | UltraLine | Weatherhine

As part of Live Labs 2, North Lanarkshire Council trialled 5 different low-carbon alternative against traditional thermoplastic as transverse, equidistant lines. This was replicated across 3 sites – one A road.

North Lanarkshire

ACLA - King St. Carpark

ACLA®

As part of Live Labs 2, North Lanarkshire Council has trialled ACLA, a low-carbon aggregate in the binder course of the King Street Car Park resurfacing works. These works were undertaken in September 2025, through a full carpark closure for 5 days.

North Lanarkshire

West Midlands Pothole Phase 2

Degafill | Elastomac | EZ Street Asphalt® | HRA | Thermal Road Repairs | Ulipatch Bio | Valfix

The trials were conducted on the West Midlands Live Network in Sandwell on the 16th July 2025. We trialled a total of 7 materials (Degafill, Ulipatch Bio, EZ street asphalt, Valfix, HRA45/10, Thermal Road Repairs, Elastomac).

Sandwell

Real-world testing
Practical trials on live roads to generate valuable evidence.

Centralised knowledge
A growing bank of data, tools and case studies for the sector.

Stronger together
Engaging the industry to share, learn and drive change.

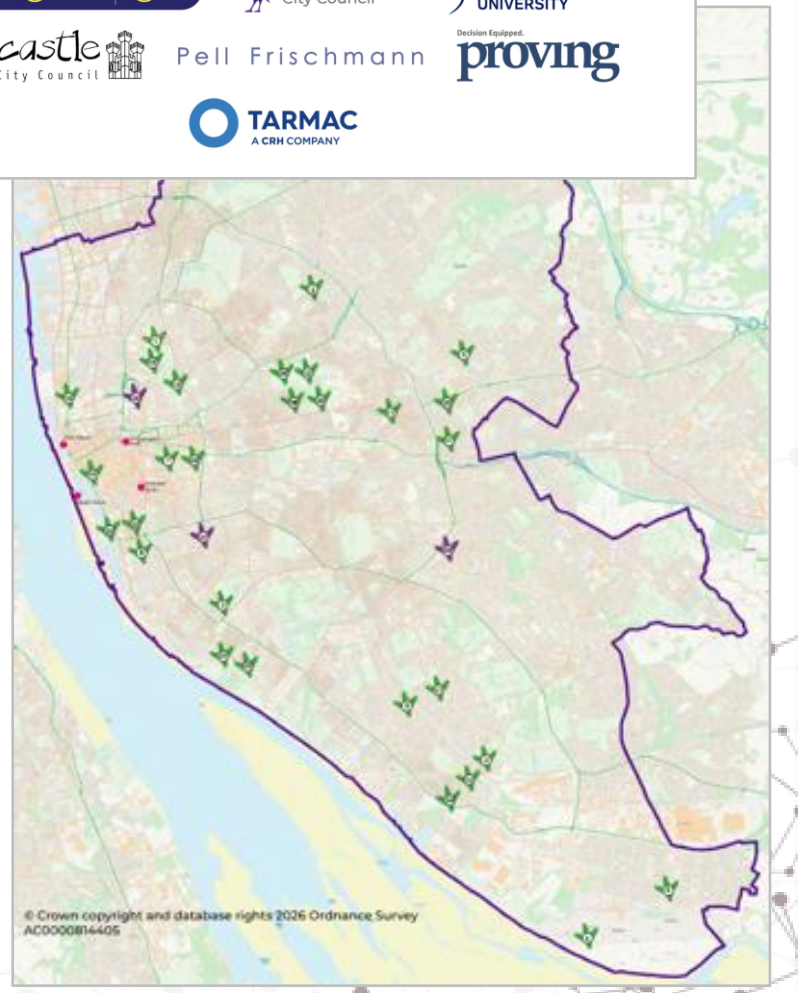
East Riding – Decarbonising Streetlighting

- Saving of **£1.2m** on test sites
- **Carbon saving** of **120t** over the next ten years
- **Reduction** in driver speeds up to **10%**
- Near misses reduced by **12%**
- Collision rates down by **one third**
- **More expansive business case being submitted**

		Articulated HGV		Bus		Car		Motorcycle		Total	
Camera	Monitoring Period	Whole Day	Dark Periods	Whole Day	Dark Periods	Whole Day	Dark Periods	Whole Day	Dark Periods	Whole Day	Dark Periods
MP#1	Sep-24 (Before)	30.4	33.28	32.86	34.07	32.72	34.15	34.24	34.15	32.65	34.14
	Sep-25 (After)	27.76	31.4	31.95	32.49	32.21	32.49	31.65	30.59	32.12	32.47
	Change from Before	-8.86%	-5.65%	-2.77%	-7.75%	-1.56%	-4.86%	-7.56%	-10.42%	-1.62%	-4.89%

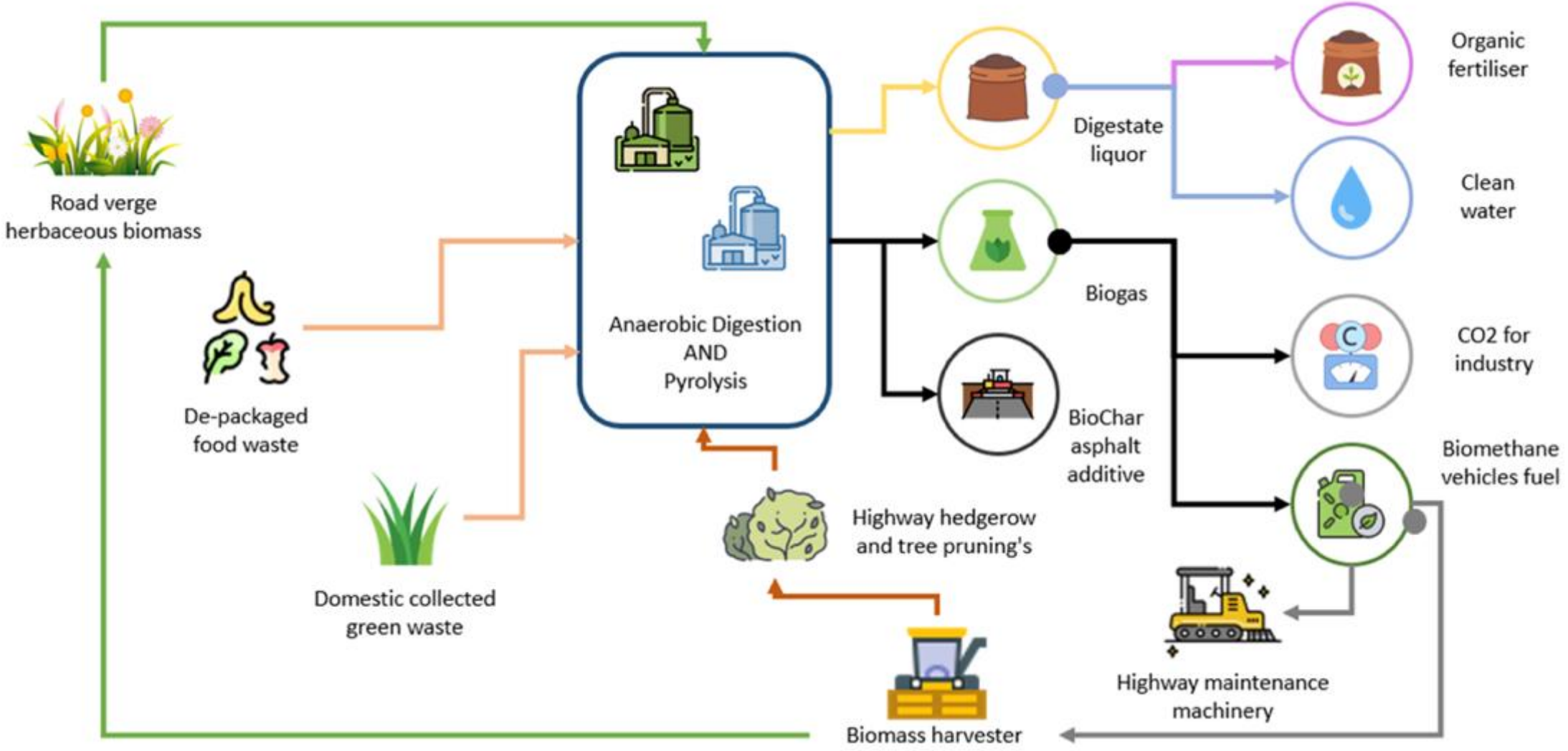
Liverpool – Eco-system of things

- Highways are the city's **largest physical asset** (£4.9bn replacement value)
- **Historic under-investment with variable conditions/aging infrastructure**
- Commitment to an ambitious **Net Zero 2030 target**, but:
  - No baseline for lifecycle carbon existed
  - Supply chains and procurement processes were fragmented
  - Limited collaboration meant low adoption of decarbonised materials/plant.
- Complex urban neighbourhoods require scheme-by-scheme decision
- No tools/methods for consistent carbon-led optioneering.
- Business-as-usual highways maintenance alone **cannot meet net-zero trajectories**.



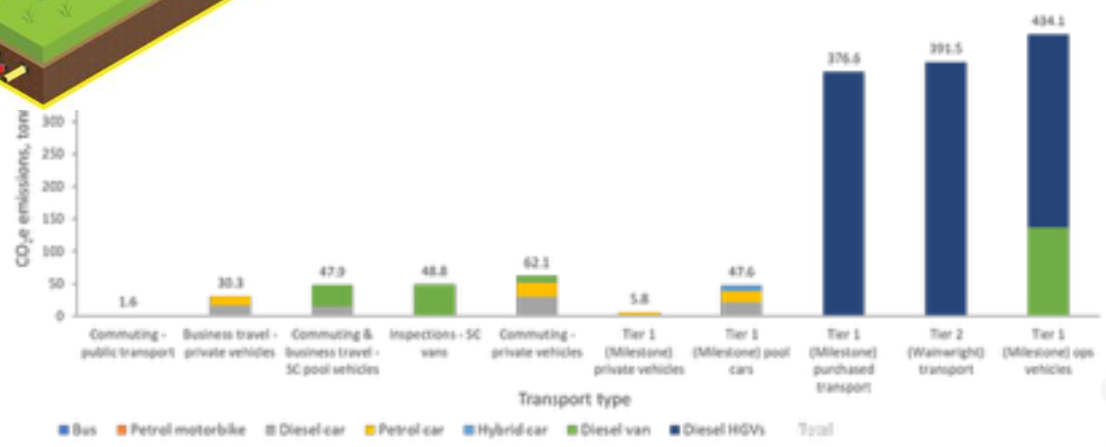
South Gloucestershire / West Sussex

Greenprint.



Wessex – Whole service approach

- **19% Carbon Saving across the project**
- **26% Carbon Saving across the project for full-service life**



Devon – A382 carbon negative road

- ECI relationship with contractor
- Carbon reduction during design
- Detailed carbon baseline
- No single solution
- Nature-based solutions considered

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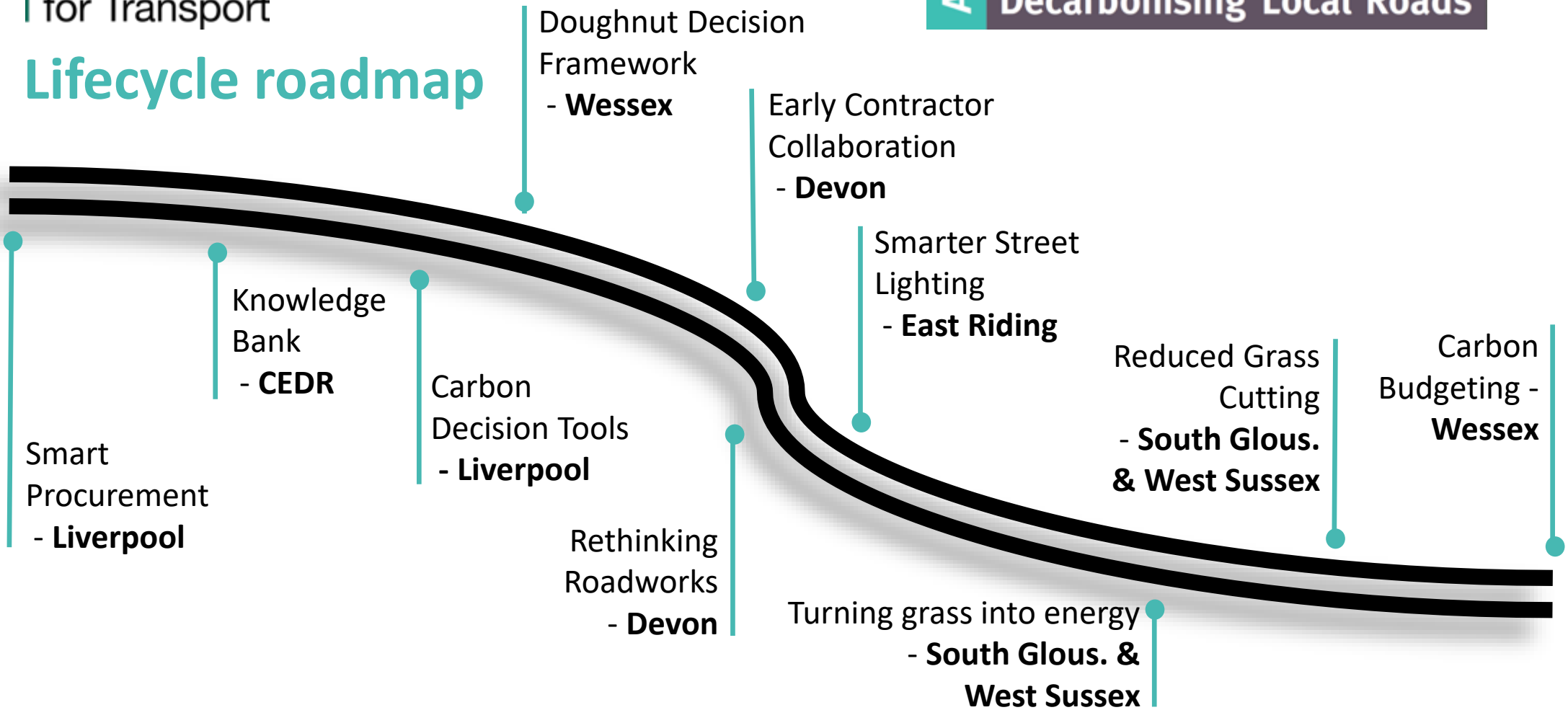
Lifecycle roadmap



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Can you afford not to do this?

- Strategic ‘oven ready’ innovations
- Portfolio of ‘tactical’ innovations
- Proven business cases
- Procurement roadmap
- Knowledge bank
- Vast evidence base
- Synergies and requirements elsewhere

= efficiencies and savings

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What are your challenges and barriers?

- Institutional
- Technical
- Practical
- Resources
- Skills
- Data
- …others?

We are here to help you overcome them…

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Year 4 – contextualise, amplify, adopt

- Regional workshops
- Tailored workshops
- Monthly triage service
- Bespoke events
- Collaborative working
- Conferences
- LLM query engine

A new sectoral BAU

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Contact us

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Live Labs 2 website

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