

## CIHT Highways Decarbonisation: Community of Interest Meeting – 23 June 2026

### Live Labs 2: From Innovation to Adoption – Summary Note

#### Background

The latest meeting of CIHT's Highways Decarbonisation Community of Interest welcomed Giles Perkins, Programme Director for ADEPT's £30 million, DfT-funded Live Labs 2 programme, to provide an overview of its findings and explore how local highway authorities can begin adopting its outputs.

The webinar was the first part of a two-stage programme leading to an in-person workshop for CoI members on Tuesday 8 September at the CIHT office in London, where participants will have the opportunity to explore selected Live Labs projects in greater depth and discuss how their innovations can be adopted across the sector.

If you would like to take part on 8 September, please [joan.roemmele@ciht.org.uk](mailto:joan.roemmele@ciht.org.uk). You can also contact Joan if you would like to bring a client or supply chain partner to the event.

#### What is Live Labs 2?

Live Labs 2 was established to address a significant gap in the UK's approach to transport decarbonisation. While much attention has focused on decarbonising vehicles, far less has been given to the highways infrastructure on which they operate. Over four years, seven Live Labs across the UK have developed, trialled and evaluated new approaches to decarbonising local roads, creating one of the largest evidence bases yet assembled for the sector.

Rather than producing a series of isolated pilot projects, the programme has delivered a portfolio of practical innovations supported by detailed carbon measurement, business cases and implementation guidance.

The challenge, Giles argued, is no longer identifying opportunities to reduce carbon, but giving authorities the confidence, evidence and practical tools to adopt proven approaches at scale.

#### Live Labs themes and findings

The Live Labs programme span the highways lifecycle from materials and procurement to design, maintenance, operations and asset management and demonstrates opportunities to reduce carbon exist across the whole service.

**Low-carbon materials:** The Centre of Excellence for Decarbonised Roads (CEDR) has evaluated hundreds of lower-carbon materials and products, creating an open knowledge bank that enables authorities to compare evidence, understand performance and reduce duplication of effort when assessing new technologies.

**Rethinking street lighting:** East Riding demonstrated that carefully targeted, lower-level lighting, combined with improved signs, road markings and intelligent technology, can deliver substantial carbon and financial savings while maintaining or improving road safety. The project also reported reductions in vehicle speeds, fewer near misses and lower collision rates alongside significant reductions in energy use.

**Embedding carbon in procurement and decision-making as part of an ecosystem of things:**

Liverpool tested more than twenty interventions across the highways lifecycle while developing practical tools to embed carbon considerations into procurement, design and investment decisions. A key output has been guidance showing how authorities can use the new Procurement Act to encourage innovation and specify lower-carbon solutions with confidence.

**Making roadside verges productive assets:** The South Gloucestershire and West Sussex project explored how roadside verges can become productive assets rather than maintenance liabilities. By collecting grass cuttings for conversion into biofuels and biochar, the project demonstrated opportunities to improve biodiversity while creating new carbon reduction and resource recovery benefits.

**Embedding carbon across the highway service:** The Wessex Live Lab integrated carbon budgeting and "doughnut economics" into highway asset management, enabling carbon, environmental and wider

social outcomes to be considered alongside cost and engineering performance throughout the decision-making process.

**Designing carbon out of infrastructure:** Devon's A382 improvement scheme demonstrated how carbon can be designed out of major infrastructure projects from the outset. Through early contractor involvement, design optimisation, material reuse and nature-based solutions, the project has reduced carbon while shortening programme duration and improving construction efficiency.

A consistent theme throughout the webinar was that these innovations deliver benefits well beyond carbon reduction. Alongside lower emissions, authorities can achieve lower capital and maintenance costs, shorter construction programmes, improved operational efficiency and wider environmental gains. Several participants observed that, particularly in the current financial and political climate, these wider business benefits may prove the strongest driver of adoption.

Looking ahead, Giles explained that the programme has now entered a fourth year focused on supporting adoption through regional workshops, practical implementation support, an online knowledge bank and a new AI-powered query tool that allows practitioners to interrogate the programme's extensive evidence base.

The Col workshop in September will build on this introduction by bringing together Live Labs project teams and practitioners to examine a small number of the most promising innovations in greater depth. Rather than revisiting the programme as a whole, the workshop will focus on the practical steps needed to accelerate adoption across the highways sector.