



# Centre of Excellence for Decarbonising Roads

## Quarterly Newsletter

October 2024



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Welcome to the first quarterly newsletter for the Centre of Excellence for Decarbonising Roads (CEDR), a *Live Labs 2: decarbonising local roads* theme - part of the *ADEPT Live Labs 2 : decarbonising local roads* programme, a three year £30 million UK-wide initiative, funded by the Department for Transport that aims to decarbonise the local highway network.

To date, reducing the impact of carbon emissions in the transport sector has focused widely on vehicles and encouraging active travel, however, within the highways sector, road materials contribute 40% of total carbon emissions. Live Labs 2 aims to reduce this impact by decarbonising road materials, bringing UK-wide local authorities (LAs) and commercial and academic partners together to execute seven projects focussing on four interconnected themes:

### **UK Centre of Excellence for Materials**

A hub for research and innovation for the decarbonisation of local roads materials, developing a knowledge bank, real-life conditions testing and sharing and learning insights.  
Lead Local Highways Authorities(LHAs): North Lanarkshire Council & Transport for West Midlands

### **Corridor and Place-Based Decarbonisation**

A suite of corridor and place-based decarbonisation interventions covering urban through to rural applications, trialling, testing and showcasing applications within the circular economy and localism agendas.  
Lead LHAs: Wessex Partnership (Somerset Council, Cornwall Council, Hampshire County Council), Devon County Council and Liverpool City Council

### **A Green Carbon Laboratory**

Examining the role that the non-operational highways 'green' asset can play in providing a source of materials and fuels to decarbonise highway operations.  
Lead LHAs: South Gloucestershire Council & West Sussex County Council

### **A Future Lighting Testbed**

A systems-based examination of the future of lighting for local roads to determine what assets are needed for our future networks and how they can be further decarbonised across their lifecycle.  
Lead LHA: East Riding of Yorkshire Council

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In this issue, you will find the latest highlights, trials, evaluations and thought leadership from the Centre.

# Highlights from the quarter



Over the past quarter, the Centre has focused primarily on planning and delivering trials over the busy summer resurfacing season. From side-by-side trials of line-marking solutions, rejuvenators, low-carbon binders, and planning for a surface treatment evaluation programme, North Lanarkshire and the West Midlands have contributed considerable effort to ensuring the programme trials and evaluates low-carbon alternatives across the core service areas of highways and local roads maintenance.

The teams across both campuses have also progressed the other project workstreams centred on unblocking barriers to low-carbon material adoption. Our partner, Connected Places Catapult, recently completed a full international market-scan of the highways materials market, with preparation underway to conduct future foresight sessions with key stakeholders from the private, academic, and public sectors. Through cross-sector knowledge-sharing, these sessions will enable the Centre and LAs alike to identify future material trends that can impact decarbonisation decision-making today.

For those in attendance at the The Local Council Roads Innovation Group (LCRIG) Innovation and Learning Festival at the start of July, you may have noticed the Centre's exhibition stand. The event offered the valuable opportunity to demonstrate our progress to date and engage other LAs to better understand their barriers to decarbonisation and experiences with specific low-carbon solutions. Our event tour continues at the Local Council Roads Innovation Group Strictly Highways Conference in October; you can register below, free for any other local authorities.

[Register](#)

LCRIG Innovation Festival

# Recent events and engagement

## Paris Trip

In June, Joseph Webster, Mark Corbin, and Alan Carr travelled to Paris with Colas to strengthen the relationships our project has with those in the sector, whilst also enhancing and expanding the project's professional network. This subsequently allowed us to share knowledge about our project, absorb information about other projects and innovations and understand trends for decarbonising materials emerging throughout Europe. This trip contributed greatly to the development of our project and project team, whilst allowing for a best practice to be implemented moving forward.

## Trials

Both campuses have conducted pothole trials within the last quarter. We recently passed the 3-month mark for the trials and conducted a visual inspection.

Following our inspection, pothole materials appear to be meeting expectations. The south campus' next set of trials (surface treatments) are set to take place in Coventry near the end of August, where we will be primarily focused on preservatives and rejuvenators.

## Glasgow Meeting

Recently both campuses from the projects met up in-person at the North Lanarkshire Council offices in Glasgow. We discussed trial protocols, methodologies, the knowledge bank, and any issues/risks that were raised. This was a very valuable meeting, and we will continue to meet in-person semi-regularly due to this.

## LCRIG

The LCRIG festival is a 2-day event, which took place on the 2nd and 3rd of July. Here innovations were showcased, and knowledge shared throughout the sector.

Our Centre of Excellence for Decarbonising Roads exhibitor stand allowed for great engagement with both the public and private sector, expanding our professional network and spreading the word regarding the project.

## Live Labs Expo

Back in April, we hosted our Live Labs Expo. This was a hub for decarbonisation knowledge sharing, along with presentations from all the other Live Labs projects.

The attendees for this event included the 7 Local Authorities that are part of the Live Labs project, private sector exhibitors and attendees with an interest in the sector. We, alongside the other Live Labs projects, presented updates and ambitions for our projects. The North Campus team have been invited to speak at the next Road Expo Scotland in November about the pothole trials.



LCRIG Innovation Festival



Colas took the team on a bike tour

# Recent Trials



Jake Harrison,  
Innovation Business Partner at Amey,  
interviewing about the Live Labs 2 programme  
as part of our on-site videography



Fliegl asphalt push-off trailer

## Recent trials

In June and July, the North Lanarkshire team led trials of the Fliegl asphalt push-off trailer. Alongside Transport Scotland, Amey and Aggregate Industries, the trials involved thermal mapping of the asphalt mix when laid using AI sensors on the paver and roller.

Due to the improved thermal insulation properties of the Fliegl, in comparison to traditional 'tipping' trailers, as well as increased haulage capacity and the push-off movement, Fliegl claims to reduce cold spots in the pavement when laying and therefore reducing the formation of future defects. In turn, this theoretically would lead to an extended lifespan of the pavement and reduced whole lifecycle carbon.

With the thermal mapping captured on-site, alongside a comparison of the traditional tipper's thermal mapping at the same site, the evaluation will assess any potential carbon savings and technical impacts of this technology. This will be triangulated with data from Transport Scotland, who are conducting similar trials of Fliegl on the trunk road network in Scotland.

# Local Authority of the quarter

The LA we would like to highlight this quarter is Coventry. We are working closely with them to deliver our surface treatment trials within the next few weeks. We have selected sites and are currently engaging with our suppliers to confirm dates and times.

'Coventry have been working closely with CEDR from mobilisation to help deliver both the pothole and surface treatment trials. We are committed to the importance of decarbonisation in these initiatives.'

Alan Carr – Asset Management Engineer

## Upcoming events for the centre

27-28 November, 2024  
Road Expo Scotland

Hear from our Project Manager for the North Campus, Lauren SeBlonka, who will be speaking on behalf of the Centre at Road Expo Scotland in November. Following on from last year's presentation, with Scott Walker, that introduced the Live Labs 2 project, she will be discussing the methodology and findings from the pothole trials conducted in North Lanarkshire and the West Midlands, sharing interim carbon profiles created in partnership with the Future Highways Research Group.

[Register Here](#)

Live Labs 2 presenting at Road Expo Scotland 2023



# What to expect in next quarter's newsletter

- Find out more about the progress of the surface treatment trials in the West Midlands this summer, with a particular focus on rejuvenation and preservation.
- Learn more about the carbon evaluation and baselining approach across both campuses, with full carbon baseline reports to be published on the ADEPT Live Labs 2 website.
- Look ahead to the development of the online knowledge bank for local authorities.

Sign Up to Newsletter

## Contact Us

Get in touch with our team to discuss the Centre.

Enquiry Form

## Share Your Innovation

Submit your low-carbon solution for consideration within our materials testing programme.

Innovators Form



