



Centre of Excellence

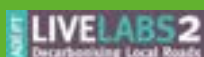
for Decarbonising Roads

Quarterly Newsletter

Q2 2025 Reflection



Department
for Transport



Transport for
West Midlands

Amey



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Welcome back to our quarterly newsletter looking at the second quarter of 2025 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.

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.

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



Highlights of the quarter

Trials

As part of our commitment to exploring low carbon solutions, quarter 2 saw the Centre finalise preparations for two major trials - South Campus Project Pothole phase 2 trials and North Campus Supersite trials and Winterpave trials.

The objective of both of these trials is to test and compare a variety of materials to then evaluate both carbon impact and long-term performance under identical conditions.

Events

We were proud to highlight our programme's innovative vision at several national events. Through exhibition stands and presentations at the Road Surface Treatments Association Conference, SCOTS AGM, and LCRIG Innovations and Learning Festival, we actively promoted our project's goals and our ongoing commitment to advancing the decarbonisation of road materials.



Knowledge Bank

Coming in early Autumn, our long-awaited knowledge bank is set to revolutionise the way local authorities identify, trial and share their experiences with low-carbon materials and methods. This tool will be open-source and free to use for local authorities, offering a menu of materials, review system and case study collection from across the UK. We are always seeking new materials and additional case studies, so please stay tuned and join the knowledge bank.

Industry Playbook

As part of our partnership with Connected Places Catapult, we are pleased to announce the publication of the Industry Playbook, designed to provide helpful tips to local authorities navigating the journey of decarbonisation. Separated into chapters for each stage, the playbook describes stakeholders, resources and tools for identifying, assessing, trialling, evaluating and scaling low-carbon materials.





Recent events

Road Surface Treatments Association Conference (RSTA)

We're thrilled to announce that the CEDR team has reached a remarkable milestone—winning the prestigious RSTA Asset Management Award for our Asphalt Preservation and Rejuvenation Demonstrator Programme! Delivered in partnership with Coventry and Solihull in August 2024, this initiative highlights our unwavering commitment to driving innovation and sustainability in road maintenance.

The annual Road Surface Treatments Association (RSTA) conference serves as a hub for industry leaders, offering invaluable insights into delivering durable, cost-effective, and environmentally friendly solutions. At this year's event, our team had the opportunity to showcase our programme's innovative approach and ongoing evaluation of three distinctive products in preventative maintenance.

Supported by independent academic input from Nottingham and Aston universities, we are dedicated to refining these treatments and delivering greater clarity in this critical area of asset management. This recognition affirms the impact of our collaborative efforts and strengthens our resolve to transform the future of road preservation.

SCOTS AGM

We had a great experience taking part in the SCOTS AGM Conference, proudly showcasing the North Campus – represented by Scott Walker, Lauren SeBlonka, and Live Labs 2 Programme Director, Giles Perkins. Their presence highlighted the programme's growing impact and commitment to transformative infrastructure across Scotland.

The event explored forward-thinking approaches to sustainable development, discussed discoveries in cutting-edge innovations in local road decarbonisation and delivered powerful insights from expert contributors shaping our sector's future. These discussions collectively reinforced a progressive vision for Scotland's transport and infrastructure—anchored in sustainability, guided by innovation, and shaped by sector-leading expertise.

LCRIG Innovations and Learning Festival

The LCRIG Innovation Festival provides a unique platform for local authorities, supply chain partners, and the wider sector to come together and help shape the future of highways and transport technology. As well as exhibitors, there was live demonstrations, CPD technical training sessions, and facilitated workshops focused on progression and collaboration in the industry.

CEDR exhibited at the innovation festival, discussing and showcasing current trial progress, upcoming works and schemes and the current development and stages of the knowledge bank. We had meaningful and engaging discussions with those in the industry.



Upcoming trials

Winterpave

We continued with preparations for the UK's first trial of Winterpave—an innovative anti-icing microcapsule additive designed to prevent ice formation on asphalt surfaces.

Following successful trials in the Italian Alps, we're now working alongside North Lanarkshire Council and Amey to bring this technology to footways in Scotland. The goal: reduce the need for traditional gritting, cut carbon emissions, and enhance pedestrian safety.

Stay tuned - we're excited to see how this promising solution performs in a UK climate, and what it could mean for future winter maintenance strategies.

Project pothole

A major focus for the South Campus has been the development of Phase 2 of our asphalt preservation and rejuvenation trials. This next phase aims to build on insights from Phase 1 and expand our understanding across a broader scope.

Site selection was especially critical for the Pothole trials, given the site's intended mixed-use functionality. After careful consideration, Thimble Mill Road in Smethwick was selected. This location offered ideal conditions for side-by-side in-line trials to assess product longevity, along with additional space to evaluate productivity and daily output for larger patching solutions.



Supersite

As surfacing is one of the highest carbon contributors in road maintenance, we are assessing the full carbon impact of each trialled material, including production, transport, operations, and end-of-life. Each material's durability and environmental footprint will also be continually monitored, providing valuable insights into their long-term performance and sustainability.

To ensure a fair assessment of the trialled materials, we had to select a road with the right combination of real-world conditions to rigorously evaluate our materials. Hirst Road in North Lanarkshire was chosen as the ideal test location:

- A long, straight stretch of B-road
- Higher-than-average levels of HGV traffic compared to other B-roads on the network
- Exposure to severe winter weather
- Access for suppliers and material delivery



By comparing conventional and low-carbon approaches, we're uncovering real opportunities to cut emissions and advance the UK's net-zero targets.

Quarterly Spotlight

Annabelle Farrington

Carbon Lead

Can you describe your role as Carbon Lead for the North Campus?

As the Carbon Lead, I'm responsible for evaluating the carbon emissions produced by the materials and processes trialled across the Live Labs 2 Centre of Excellence North Campus in North Lanarkshire. This includes collating carbon data on site, conducting lifecycle carbon assessments, collaborating with suppliers to gather accurate emissions data, and ensuring our methodologies align with industry standards.

I work to ensure carbon findings turn into actionable strategies to reduce embodied carbon emissions along the highways network. This may be highlighting successful low-carbon alternatives trialled or highlighting opportunities to refine installation practices to reduce embodied emissions.

Ultimately, my role helps to ensure that sustainability is embedded in every decision we make when deciding whether to adopt an innovative material within regular maintenance activities.



What inspired you to pursue this career?

I've always been drawn to environmental responsibility and sustainability since school and knew my career would head in this direction – I just wasn't sure how. I originally began my career focusing on environmental practices; however, I quickly realised that my passion was for decarbonisation and that this was a sector I could blossom in.

Early on working in this field, I saw how carbon data could be used not just to measure impact but to drive meaningful change. Working on Live Labs 2 allows me to apply that passion in a tangible way, contributing to a project that has real-world implications where you can see positive change.

What is the most rewarding part of your job?

One of the fulfilling aspects of my role is knowing that the data and insights we produce are actively shaping real-world decisions. I particularly enjoy translating carbon assessments into clear, actionable recommendations that stakeholders can implement with confidence. Also, knowing that my work has a broader impact. The work I'm doing will contribute to long-term decarbonisation strategies and ensuring that carbon insights not only inform immediate actions but also support national roadmaps for net-zero transition.



Upcoming events for the centre

LCRIG Strictly Highways

30th September – 2nd October 2025, Blackpool

Strictly Highways is the flagship annual event hosted by the Local Council Roads Innovation Group (LCRIG), bringing together the highways community for a dynamic mix of learning, networking, and celebration.

This event is a celebration of the innovation and dedication driving the future of local roads.

Join us at our stand for insightful conversations on cutting carbon in road materials and pioneering breakthroughs in highway decarbonisation. Discover how innovation is reshaping the way we build sustainable infrastructure—one surface at a time.

[Sign up](#)

Highways UK

15th – 16th October 2025, Birmingham

Visit us at Highways UK at the Live Labs 2 stand – stand A2 - as we offer a chance to explore the methodology and key findings from our completed trials in North Lanarkshire and the West Midlands.

Team members will be on hand to discuss how these results are being applied, outline the next steps in our programme, and share plans for future trials aimed at advancing sustainable road maintenance.

Stop by stand A2 to examine advanced methodologies for carbon reduction in bituminous and cementitious road materials and review current innovations driving highway sector decarbonisation.

[Sign up](#)

Road Expo Scotland

26th – 27th November 2025, Glasgow

Road Expo Scotland is the country's largest dedicated event for the road, traffic, and transport sectors—bringing together public and private stakeholders to shape the future of mobility and infrastructure.

This event is a strategic platform for collaboration, learning, and driving sustainable change in Scotland's transport landscape.

Visit our stand to explore transformative ideas in reducing carbon within road construction materials and driving forward decarbonisation in the highways sector.

[Sign up](#)

What to expect in next quarter's newsletter

Evaluations of Materials

Stay tuned, as our knowledge bank will be regularly updated with technical and carbon evaluations. Over the coming months, we are looking forward to results from the University of Nottingham and Aston University on accelerated life testing of pothole repair material slabs, as well as initial findings from this Summer's binder testing.

Completion of Sandbox

By October, we will be wrapping up our Barriers to Decarbonising Roads (BDRS) Sandbox, delivered in partnership by North Lanarkshire Council, Amey and Safetytech Accelerator. The programme will conclude with key mitigations and methods developed by innovative Small-to-Medium Enterprises (SMEs) for the barriers they are facing when scaling their low-carbon materials.

Autumn Trials: biochar

Working closely with our fellow Live Lab, Greenprint, we will be trialling biochar in September in North Lanarkshire and the West Midlands. Derived from grass cuttings and processed through pyrolysis, biochar will be incorporated into the asphalt mix for surfacing schemes. This circular approach demonstrates carbon savings through reduction of virgin material usage and carbon sequestration, whilst showcasing how Live Labs across nations are collaborating to explore the feasibility of biochar.

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Get in touch with our team to discuss the Centre.

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

[Innovators Form](#)

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