# UK local highway authorities face behavioural hurdles in decarbonising road networks



Local highway authorities across the UK aiming to decarbonise road networks are encountering substantial behavioural challenges, according to a recent report from the Behavioural Insights Team (BIT). The study was commissioned under the Live Labs 2 programme, a £30 million government-backed initiative managed by the Association of Directors of Environment, Economy, Planning & Transport (Adept), which seeks to reduce carbon emissions in the local highway sector.

The BIT report highlights a range of “significant” barriers hindering progress in decarbonisation. These include widespread greenwashing, financial constraints, and procurement processes that rarely prioritise carbon reduction criteria. Furthermore, many authorities face skills and knowledge shortages in key areas such as carbon accounting and innovation. Deeply ingrained organisational cultures favour traditional, lower-risk methods over change, while siloed working practices and limited collaboration between authorities impede the sharing of knowledge and coordinated progress. These issues are further exacerbated by inconsistent leadership support within the sector.

Emissions associated with transport infrastructure—particularly from the construction, maintenance, and management of highways—are often overlooked in efforts to reduce transport sector emissions, which have historically focused on vehicle tailpipe emissions. The report estimates that UK local highways generate approximately 1.5 million tonnes of CO2 equivalent each year, with public spending exceeding £4 billion annually on local road maintenance and improvement.

Neil Gibson, chair of the Live Labs 2 Commissioning Board, stressed the importance of addressing organisational behaviour in driving decarbonisation across local road infrastructure. Speaking to New Civil Engineer, he said: “This vital work on organisational behaviour explores some of the upstream and downstream change that is necessary to embed asset based decarbonisation across all activities in the local roads industry and continues the conversation around whether we can afford not to do anything.” He added that the findings are currently under review by the Commissioning Board, ADEPT, and the Department for Transport to determine how to monitor behavioural shifts effectively.

The BIT report concludes that no quick fix exists for the behavioural challenges identified. Instead, it calls for sustained time, investment, and commitment from a variety of organisations to progress towards a low carbon transport future. It puts forward a series of recommendations designed to address these obstacles and foster systemic change across local highway authorities.

Key Live Labs 2 proposals for decarbonising local roads include:

* Reducing reliance on competitive bidding for funding to encourage longer-term strategic planning.
* Developing a strategic spatial plan for local highways and infrastructure across the UK.
* Enhancing communication regarding available funding and providing tailored support to authorities.
* Establishing a local highways expertise hub to facilitate knowledge sharing and leadership.
* Embedding decarbonisation requirements within contractual arrangements.
* Cultivating organisational cultures that encourage psychological safety, risk-taking, and experimentation.
* Securing guaranteed funding over extended periods rather than short-term grants.
* Supporting public-private financial partnership models.
* Creating demand for green materials by demonstrating their short- to medium-term benefits.
* Conducting skills audits and delivering targeted training in decarbonisation, innovation, carbon literacy, evaluation, and procurement.
* Introducing government subsidies to incentivise low carbon options in tender processes.
* Building a national network to support emerging innovators.
* Developing an impact modelling tool to evaluate the effects of innovations in decarbonisation.

The report’s detailed analysis and recommendations provide a comprehensive framework for addressing the complex behavioural and organisational factors that currently limit the pace and efficacy of decarbonisation efforts within the local highway sector. As these measures are considered further by policy-makers and stakeholders, the ongoing Live Labs 2 programme continues to spearhead attempts to transform the environmental impact of the UK's local road networks.

Source: [Noah Wire Services](https://www.noahwire.com)

## Bibliography

1. <https://www.traffictechnologytoday.com/news/emissions-low-emission-zones/new-report-strategies-for-decarbonising-local-roads-published-by-uks-adept-live-labs-2.html> - This article confirms the Live Labs 2 programme as a £30 million government-supported initiative managed by ADEPT, focusing on decarbonising local UK roads, and details key behavioural challenges such as greenwashing, financial constraints, and procurement issues, as well as recommendations like reducing competitive bidding and fostering risk-taking cultures.
2. <https://transportandenergy.com/2025/04/24/adept-report-highlights-highways-decarbonisation-opportunities/> - This source supports the claim that behavioural change is central to accelerating decarbonisation in local roads, outlines financial figures including £4bn annual expenditure and 1.5 million tonnes of CO2 emissions from local road maintenance, and lists Live Labs 2’s suggested strategies including funding reform, expertise hubs, and skills audits.
3. <https://www.bi.team/publications/the-role-of-behaviour-change-in-decarbonising-the-uks-local-highways-infrastructure/> - This publication from the Behavioural Insights Team itself highlights significant organisational and behavioural barriers to decarbonisation in local highways, including skills shortages, siloed working, and leadership challenges, directly corroborating the detailed behavioural focus of the report mentioned.
4. <https://www.argusmedia.com/en/news-and-insights/market-opinion-and-analysis-blog/twists-and-turns-in-the-route-to-decarbonise-uk-roads> - This article discusses the carbon intensity of road construction materials and supports the claim that decarbonisation efforts must consider upstream emissions from materials and construction processes, complementing the report’s emphasis on emissions beyond just vehicle tailpipes.
5. <https://nationalhighways.co.uk/our-work/environment/net-zero-highways-progress-report-2023-2024/> - The National Highways' progress report provides context on governmental efforts and policies directed at net zero emissions in highway infrastructure, aligning with the report’s discussion on institutional efforts to embed decarbonisation across local highways.
6. <https://www.gov.uk/government/publications/adept-live-labs-2-decarbonisation-programme> - This UK government publication describes the ADEPT Live Labs 2 programme’s objectives, funding, and focus areas, validating the programme’s scale, scope, and the strategic role of behavioural insights in decarbonising local road networks.
7. <https://www.newcivilengineer.com/latest/local-road-decarbonisation-hampered-by-blocking-behaviours-24-04-2025/> - Please view link - unable to able to access data