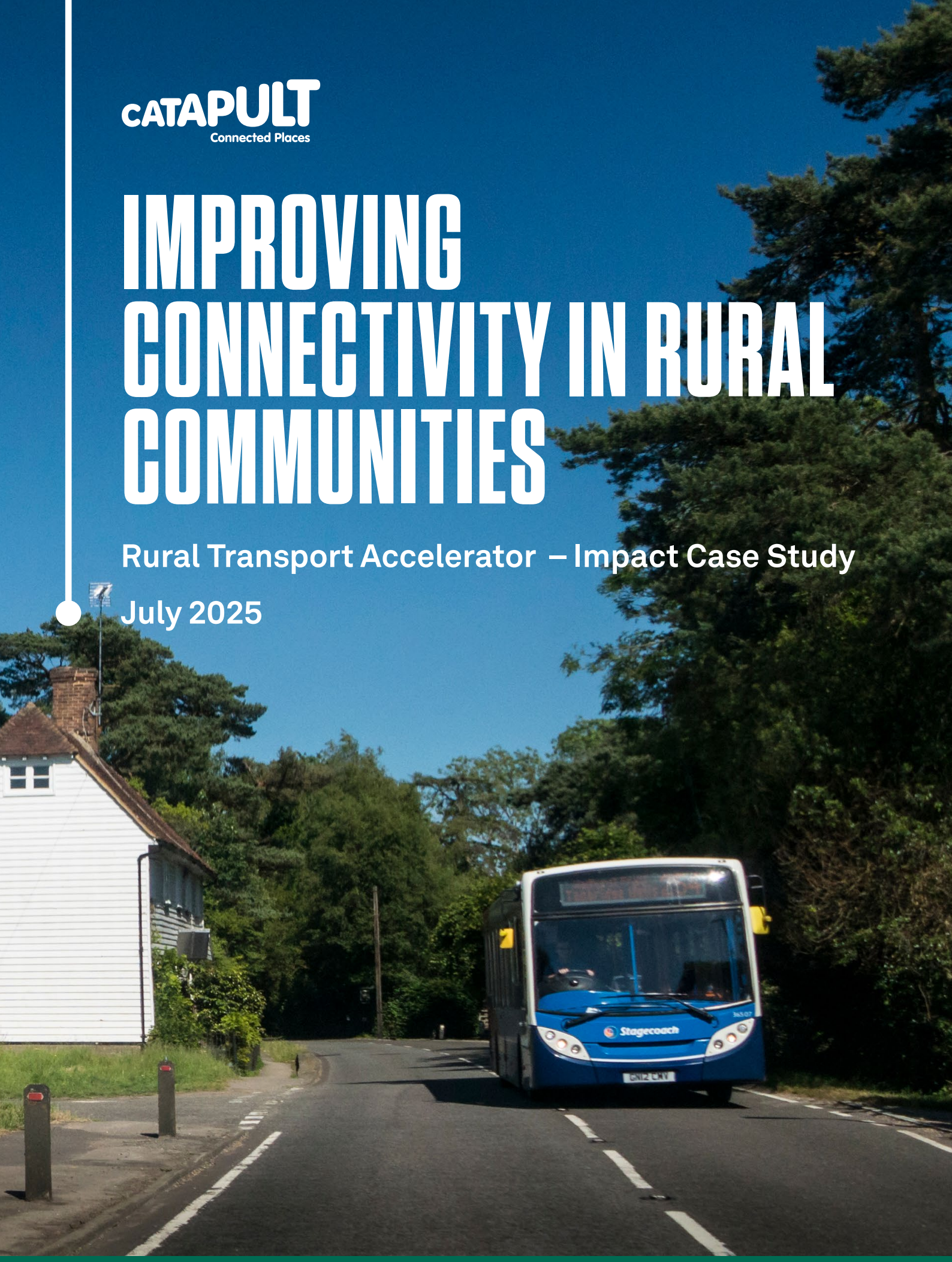
CATAPULT
Connected Places

IMPROVING CONNECTIVITY IN RURAL COMMUNITIES

Rural Transport Accelerator – Impact Case Study

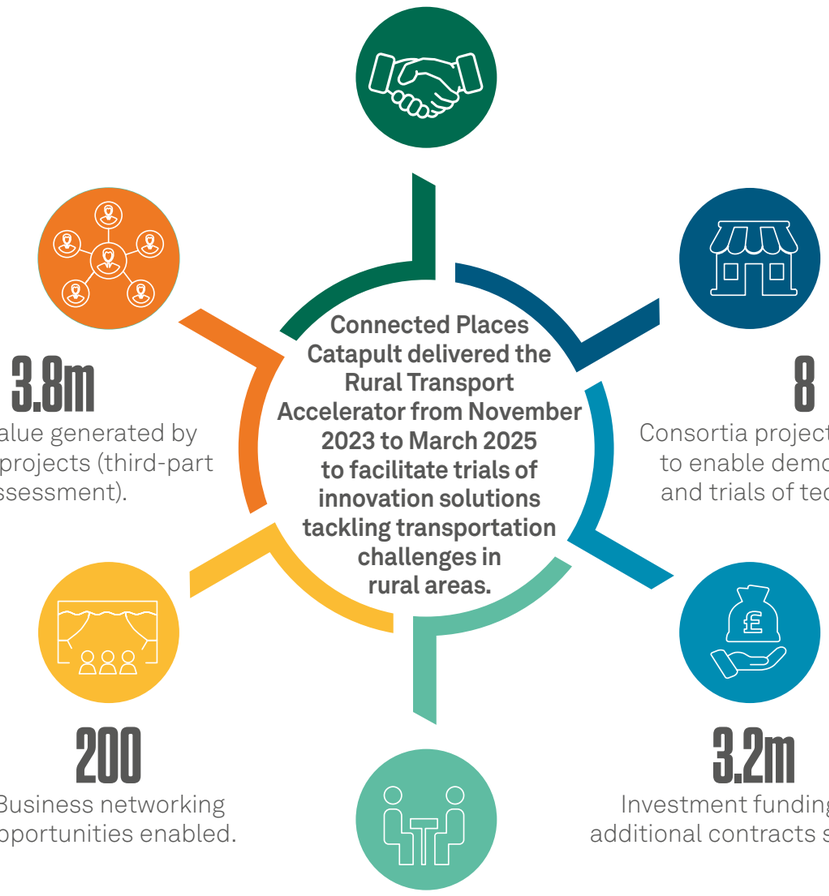
July 2025



Delivered in partnership with the Department for Transport

IMPACT STATISTICS

22
Collaborations and partnerships enabled.



3.8m
Social Value generated by the eight projects (third-part assessment).

8
Consortia projects supported to enable demonstrations and trials of technologies.

200
Business networking opportunities enabled.

3.2m
Investment funding and additional contracts secured.

14
New jobs created (full-time equivalent).

“People who live in rural areas have unique needs when it comes to transport, and we’re always looking for ways to improve connections across the country. Through our funding, these projects will shake up the way rural transport is delivered, using the latest innovations to help residents see their friends and family, do their weekly food shop or attend hospital appointments.”

Lilian Greenwood, Future of Roads Minister

KEY MESSAGES

Connected Place Catapult delivered the Rural Transport Accelerator from November 2023 to March 2025 with nearly £2 million funding from the Department for Transport.

The Accelerator aimed to support SMEs and local authorities to expedite the uptake of rural transport innovative solutions, enhance transportation services for users, and foster improved connectivity within rural communities, ultimately leading to a greener, safer and more resilient transportation network.

- **Eight consortia projects**, comprising eight SMEs, five local authorities, and two subnational transport bodies, were selected to receive a total **£1.2 million in pre-commercial funding** through the Accelerator (£150,000 each) to undertake a series of demonstrator trials that developed potential solutions to five key challenge areas.
- **All eight projects progressed their technologies on the technology readiness level (TRL) scale by at least two**, with four projects progressing TRLs by three or more levels. Combined, the eight projects generated an estimated social return on investment of **£2.98 per £1.00 spent**[1].
- All participating Local Authorities and sub-national Transport Bodies increased their confidence in collaborating with SMEs to discuss procurement and deployment, as shown in Figure 1. Similarly, half of the Local Authorities expected an increase in meetings with SMEs for these discussions.

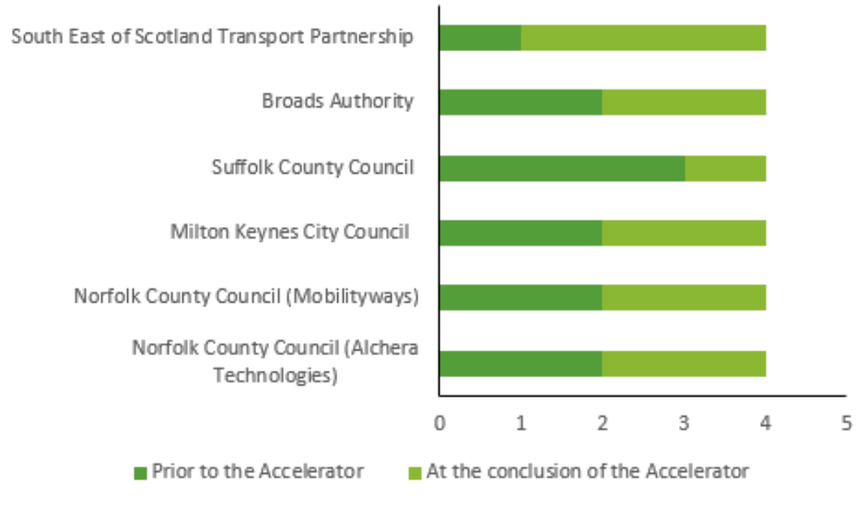


Figure 1: Level of confidence in collaborating with SMEs to discuss procurement and deployment possibilities (1 extremely unconfident to 5 extremely confident)

- The Accelerator provided bespoke support to each project, ranging from masterclasses to one-on-one coaching to improve understanding of procurement processes, strengthen branding and marketing strategies, and boost investment readiness.
- Participation in the Accelerator had a positive impact on SMEs and local authorities, securing **£3.2 million of investment and additional contracts**, as well as generating **14.2 full-time equivalent jobs**[2].
- For improved rural mobility, key lessons and recommendations emerge from the programme.

1. Recommended interventions include addressing digital connectivity issues in rural areas, leveraging incentives and communications for sustainable travel adoption, and supporting transportations needs with evening and low-frequency options.
2. Most importantly, defining a clear ‘problem owner’ and improving data access, sharing and integration across sectors would stimulate the adoption of innovative solutions in rural areas, especially with stakeholders such as the NHS.

1 |Social value methodology, calculations and results, completed by a third-party, are outlined in a distinct report, titled *Rural Transportation Accelerator: Social Value Report*

2 Results shared directly by the cohort through an end-of-programme survey

PROGRAMME PARTNERS

Department for Transport

Department for Transport (DfT)

The UK Department for Transport (DfT) is responsible for overseeing the country's transport network, setting policies, and ensuring safe, efficient, and sustainable transport systems across road, rail, air, and maritime sectors.

CATAPULT Connected Places

Connected Places Catapult (CPC)

Connected Places Catapult is the UK's innovation accelerator for cities, transport, and places. It provides impartial 'innovation as a service' for public bodies, businesses, and infrastructure providers to catalyse improvements in the way people live, work and travel.

TRANSPORTEAST

Transport East

Transport East is the sub-national transport body for the East of England, responsible for developing and delivering a regional transport strategy that supports economic growth, connectivity, and sustainability.

> "I would like to thank CPC for making the Rural Accelerator Fund a success, which from our perspective has felt expertly and seamlessly delivered throughout. The professionalism of all involved was notable, particularly with how fast the fund was established and the level of support that has been provided to the cohort to support their work."
>
> **Tom McLenachan CEnv, MIEMA, Head of Systems, Future Transport Systems, Department for Transport**

Department for Transport

THE CHALLENGE

Rural areas in the UK are diverse, and their needs and challenges vary from place to place.

In November 2023, the Department for Transport (DfT) published "Future of Transport - Helping Local Authorities to unlock the benefits of technology & innovation in rural transport"[3] (Future of Rural Transport Guide), which sets out transport challenges faced by rural areas and provides guidance on how local authorities can leverage innovative transport technologies and services to overcome them.

Rural roads: 323.8 bn vehicle miles were driven on Britain's roads in 2022[4] – majority of these journeys began and ended on a local highway. Poorly maintained highways, with issues like potholes and poor drainage, present a safety risk to all local transport users (including cyclists and pedestrians, as well as cars, buses and freight vehicles) and impose costs on motorists.

Sustainable future: Rural motorists on average drive further than their urban counterparts. To meet the UK's target of net zero GHG emissions by 2050, rural road users need to transition to zero emission vehicles. However, lack of charging points remains a key disadvantage to electric vehicles for rural businesses and residents. While EV charging infrastructure has increased in recent years, at least 300,000 public charge points will be needed by 2030 to satisfy demand.

Rural mobility: Rural bus and rail services are important parts of the local transport system. However, due to dispersed populations, longer distances and varying levels of demand, rural transport services can be challenging to operate commercially.

Agricultural transportation: Heavy vehicles, such as HGVs and tractors, play a big role in rural "economies" facilitating transportation of goods, connecting local businesses to wider markets, and contributing to local economic growth. Although hydrogen is being explored as an emerging low carbon fuel, further evidence is required on decarbonisation options for non-road mobile machinery[5] (such as tractors), as well as possible barriers to adoption.

3 https://assets.publishing.service.gov.uk/media/652e37b46b6fbf0014b757a9/dft-future-transport-supporting-rural-transport-innovation.pdf
4 https://www.gov.uk/government/statistics/road-traffic-estimates-in-great-britain-2022/road-traffic-estimates-in-great-britain-2022-headline-statistics
5 Non-road mobile machinery (NRMM) broadly refers to any mobile machine, transportable equipment or vehicle which is not intended for the transport of goods or passengers on the road and is installed with a combustion engine.

Importance of rural roads for everyday journeys

Driving towards a sustainable future

Enabling innovation in rural mobility

Advancements in agricultural transportation

Open challenge

Figure 2: The five challenges of Rural Transport Accelerator

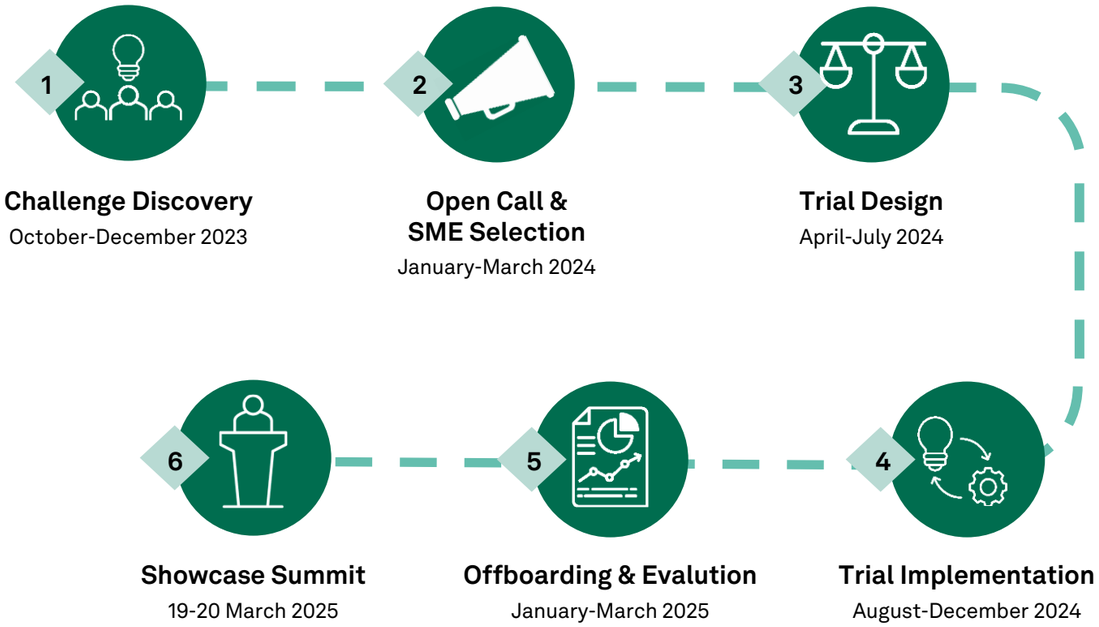
THE SOLUTION

Innovation in transport technologies and services has the potential to enhance rural transport and support a higher quality of life for people in rural areas.

The Department for Transport (DfT) commissioned Connected Places Catapult to deliver the Rural Transport Accelerator, in partnership with Transport East.[6] The Accelerator provided eight projects with up to £150,000 each in funding to undertake a series of demonstrator trials that developed potential solutions to challenges set out in the DfT's Future of Transport Guide.

Each project needed to be part of a consortium to be eligible for funding, and this requirement was intentional. It helped address the barrier SMEs often face in finding suitable places to demonstrate their innovations, by creating partnerships with potential end buyers. It also enabled local authorities and transport bodies to actively participate in innovative projects, giving them a chance to engage with new solutions and, ideally, showcase their value more widely.

Figure 3: Rural Transport Accelerator programme timeline



6 Transport East is the sub-national transport body for the East of England, responsible for developing and delivering a regional transport strategy that supports economic growth, connectivity, and sustainability.

THE KEY: COMMUNITY & ECOSYSTEM ENGAGEMENT

Rural areas in the UK are diverse, and their needs and challenges vary from place to place.

Community engagement

Overall, this accelerator involved **24 organisations** across England Scotland. Across trials, **more than 800 rural residents** were engaged or surveyed.

Community engagement is essential to the success of rural transportation innovation, as it ensures that solutions are shaped by the lived experiences of residents. Across the programme, trials that embedded user feedback – such as through surveys, workshops, or co-design – were better able to align their technologies with local needs. Projects like BetaStreets and Intelligen demonstrated that meaningful engagement not only improves design relevance but also builds trust and adoption. Involving communities early helps uncover barriers often invisible to planners, from safety concerns to digital exclusion, and ultimately leads to more inclusive and effective transport solutions.

Ecosystem creation

The chosen cohort of SMEs was announced on the Connected Places Catapult website in November 2024, alongside a cohort brochure. As part of the programme's communication plan, this announcement was relayed by diverse platforms and stakeholders, such as gov.uk and Interchange UK.

This announcement marked the birth of a robust ecosystem of innovators and challenge owners tackling rural transportation challenges. This accelerator highlighted that a great number of organisations and governmental agencies are sharing the challenges of rural transportation.

Showcasing Opportunities

There have been several showcasing opportunities for the cohort, including events:

- Transport East Rural Transportation Workshops (February 2025)
  - As part of the rural transportation ecosystem, the work of the accelerator was discussed on several occasions in these workshops
- MOVE 2024 (June 2024)
  - Beta Streets and Alchera Technologies exhibited in the MOVE 2024 conference

Rural Transportation Conference

Figure 3: Sharon Payne (Transport East) presenting the Rural Mobility Centre of Excellence strategy at the Rural Transportation Conference

This conference was organised by Transport East and Connected Places Catapult on October 8, 2024. The event convened 38 attendees: the cohort, colleagues from the DfT (including DfT Director Claire Wren), Community Transport Association, Active Travel England, Department for Environment Food and Rural Affairs, as well as six sub-national Transport Bodies. The aim was to explore projects in rural transportation across the country and discuss ambitions, future projects in the form of a workshop.

Rural Transportation Accelerator Showcase: 2025 Connected Places Summit

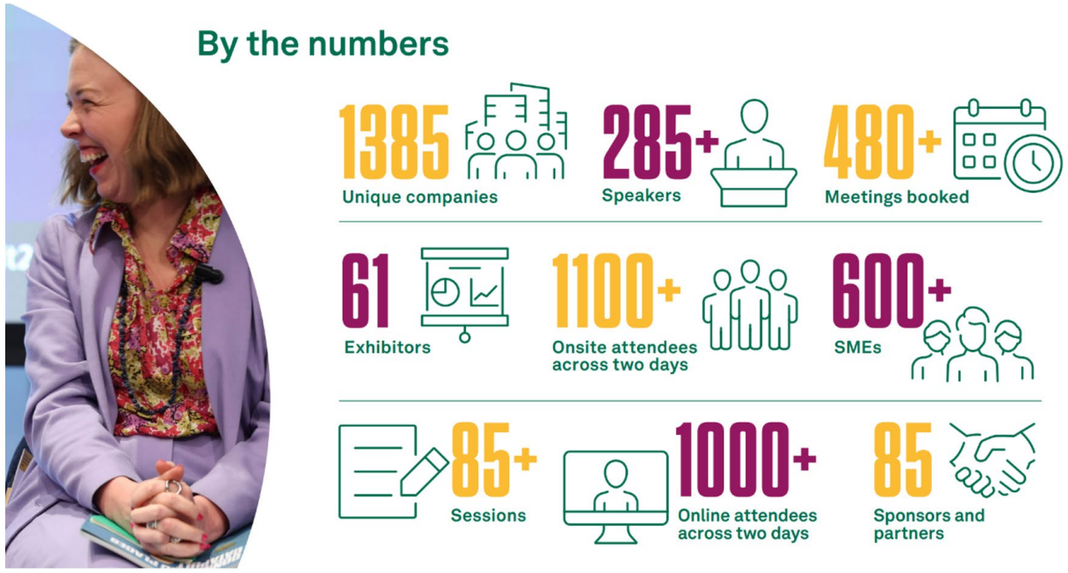


Figure 4: Attendance numbers from the 2025 Connected Places Summit

The showcase, held at Convene Sancroft on March 19-20, 2025, was part of a wider event: the Connected Places Summit. The summit allowed SMEs and Local Authorities to network and showcase their product on a grand scale, as shown by Figure 4. The DfT Rural Transportation themes were addressed through a comprehensive track of sessions:

1. Innovating for rural mobility: SME case studies from the DfT Rural Transportation Accelerator
    a. *This session offered the opportunity for a broad audience to learn about each trial and its outcomes.*
2. Panel: insights and ambitions of key government departments for integrated rural transportation
    a. *This session gathered key players in the rural transportation ecosystem to discuss current and future ambitions across three government departments (DfT, Active Travel England and DEFRA) and Community Transport Association*
3. Social impact in transportation: the case study of DfT Rural Transportation Accelerator
    a. *This session outlined the importance of user and community engagement in rural mobility, whilst outlining the programme's methodology to capture social value in transportation projects.*

In addition to dedicated sessions, the accelerator cohort had a permanent exhibition zone (*Rural Transportation Zone*) on the main lounge. Each SME had a table to network and showcase their company. Motocargo also displayed their prototype bike in the Zone. We estimate that this zone was visited by more **than 150 unique attendees over the two summit days**, sparking conversations across sectors and industries.

> **"We are delighted to receive DfT funding through Connected Places Catapult to develop AI Travel Marketplace. It represents a step change in the purpose and utility of travel planning applications, focusing on load-balancing available transit resources to deliver socio-economic outputs, rather than promoting limited shortest path options that have historically left people stranded."**
>
> **Chris Thompson, CEO at 'You. Smart. Thing.'**

Collaboration and partnerships

Six SMEs stated that the Accelerator facilitated connections which were essential to accelerate the development of their product/solution, with the remaining two claiming this was potentially the case.

Some concrete collaborations and partnerships have emerged as a result of the Accelerator:

- Scottish Rural and Islands Transport Community (SRITC) is partnering with UrbanTide on outreach efforts to rural community being served by the trial.
- Civil Water Management is collaborating with Active Travel to expand their current trial for more cycle paths to be serviced by them.
- Midlands Connect is collaborating with You Smart Thing for their expertise to help with a research project being conducted by Midlands Connect in You. Smart.Thing's region.

> **"Working closely with Norfolk County Council has enabled us to establish a strong and trusting partnership. This collaboration has enhanced our understanding of their policies and allowed us to gain practical insight."**
>
> **Alchera Technologies**

THE COHORT AND THEIR OUTCOMES

alchera TECHNOLOGIES

Solution: Alchera's Rural Travel Behaviour Model combines origin-destination data with service reliability metrics to provide a detailed understanding of travel patterns.

Outcomes and impact:

- Solution developed from TRL 5 to TRL 7
- 3 new hires (permanent full-time)
- Shift to G-Cloud 14 to streamline procurement processes with local authorities
- 3 new partnerships between Alchera and WSP, Arup, and Transport East
- 4 routes identified for improvement by the model empowering Norfolk County Council with actionable insights
- £1.42 social value generated per £1 invested

βeta streets

Solution: Engage 360 is a collaborative street design tool built on a game engine to make the process more accessible.

Outcomes and impact:

- Solution developed from TRL 3 to TRL 7
- 2 new hires (contract staff)
- 120 users tested the platform, providing 150+ comments to inform Suffolk County Council's transport planning
- 9 community events organised, allowing residents to identify local issues, propose solutions, and visualise potential changes
- £3.30 of social value generated per £1 spent

CIVIL WATER MANAGEMENT

Solution: Hydrotrench is a modular, permeable drainage system made from recycled tyre rubber.

Outcomes and impact:

- Solution developed from TRL 6 to TRL 9
- Secured specialist supplier status with Sustrans
- Improved path accessibility and better connectivity, with 60% of 80 people surveyed highlighting improved access for walking, running, and cycling
- 50% carbon reduction in the path's construction compared to traditional methods
- £2.78 of social value generated per £1 spent

intelligen

Solution: the powerPOD – a solar-powered, off-grid storage and charging station designed specifically for Light Electric Vehicles (LEV).

Outcomes and impact:

- Solution developed from TRL 6 to TRL 8
- 3 new hires (1 full-time and 2 part-time)
- New contracts secured, including an £31,000 agreement to deploy upgraded powerPODs at Haltwhistle Railway Station
- 750 people engaged in events and feedback sessions
- £3.99 of social value generated per £1 invested
- Net negative CO_2 product value of -0.558 $kgCO_2e/m^2$

mobilityways

Solution: The IVORA trial tested a multi-technology approach to detect and incentivise shared vehicle use.

Outcomes and impact:

- Solution developed from TRL 5 to TRL 8
- Secured three contracts worth £45,000, including with Gatwick Airport
- 2 new hires (permanent full-time product developers)
- 12,000 car miles and 2,600 kg of CO2 saved during the pilot phase
- £4.07 of social value generated for every £1 invested
- Three new bus routes to be implemented in Summer 2025

MOTOCARGO

Solution: The Motocargo L150 is an electric cargo motorcycle designed for rural logistics, combining a 100-mile battery range, 150kg load capacity, and top speed of 50 mph.

Outcomes and impact:

- Evidenced proof of concept (from TRL 5 to TRL 7)
- Motocargo vehicle can replace up to 50% of underutilised delivery vehicles in specific rural contexts
- The vehicle can reduce costs by 33p per mile compared to petrol motorcycles, 67p versus diesel vans, and 99p compared to electric vans.
- Each Motocargo vehicle has the potential to reduce emissions by up to 10 tonnes of CO_2 e annually – or 100 tonnes over a 10-year vehicle life.
- £1.94 of social value generated per £1 invested
- Motocargo's vehicle did not require a distinct license to be operated, which meant various drivers could easily be hired to drive the bike

UrbanTide

Solution: the "uMove Rural" module integrates health and transport data to enable resident level mapping of healthcare access and virtual testing of demand-responsive transport (DRT) alternatives.

Outcomes and impact:

- Solution developed from TRL 3 to TRL 6
- 1 new hire (permanent full-time)
- 700-800 rural residents engaged via community councils
- DRT could reduce travel times by 45-50% compared to standard public transport options
- £1.60 of social value generated per £1 spent £2.78 of social value generated per £1 spent

You. Smart. Thing.

Solution: The AI Travel Marketplace (AITM) is a smart travel planning platform that offers users curated, multimodal journey options combining DRT, public transport, taxis, and active travel.

Outcomes and impact:

- Solution enhanced (from TRL 6 to TRL 8)
- 2 new hires (permanent full-time)
- £1.2 million in investment raised
- 10,992 travel queries processed across deployments
- 22% of surveyed users changing their travel behaviour as a result
- DRT usage (Liftango) grew from 500 to 3,000 monthly users
- £4.86 of social value generated for every £1 invested £3.99 of social value generated per £1 invested

NEXT STEPS

Alchera plans to scale the Rural Travel Behaviour Model across Norfolk and other local authorities, integrating additional data layers such as cycling routes and community travel services to refine insights. Commercially, Alchera is pursuing partnerships through procurement frameworks such as G-Cloud 14 to make its solution more widely accessible.

Beta Streets plans to finalise Engage 360, advancing it from TRL 7 to TRL 9, and launch a new product range, including updates to Beta Streets Pro. They aim to expand client subscriptions, grow their supplier range, and build strategic partnerships. Commercially, Beta Streets is developing a new service for 360-degree data capture and project hosting, enhancing its market offering. Future plans also include attending UK and international events to showcase the platform and secure funding for further development.

Civil Water Management plans to expand Hydrotrench along an additional 800–1,000m of NCN Route 6. The company is also targeting other projects within the National Cycle Network and Milton Keynes Redways. Commercially, they aim to secure procurement frameworks and promote Hydrotrench at industry events to scale adoption nationwide.

Intelligen plans to proceed with the delayed installations at Carlton Marshes, Salhouse Broad, and Reedham Ferry Inn, with a launch event scheduled for 11 April 2025. The company is also exploring broader deployment opportunities across The Broads in partnership with the Authority. Upcoming developments include collaboration with CHAdeMO to trial a new standardised charging protocol for LEVs and the launch of the powerTRIP2, an upgraded charging station featuring expanded storage and integrated technologies. Further development of the JNPR platform, including a dedicated app, will allow users to locate and reserve stations and access live charging data. Intelligen also plans to showcase the powerPOD at investment and industry events to scale the solution across the UK and Europe.

Following the hospital-wide launch of the Liftshare scheme in February 2025, Mobilityways plans to trial the OccCam system on a public road in partnership with Norfolk County Council, testing accuracy for moving vehicles up to 30 mph. Additional orders are being fulfilled, and ten other organisations have expressed interest in the technology. The team is continuing to develop the commercial application of CommuteJournal, OccCam, and bus service planning insights, with a view to scaling across local authorities, employers, and transport operators nationwide.

Motocargo will seek public and private investment in Q1 and Q2 2025 to fund development from prototype to commercial production. This includes reapplying for a Production Readiness Grant from the Niche Vehicle Network. Research and development in late 2025 will focus on improving rider comfort, load security, weather protection, and comparing front- vs rear-seating configurations. A second-generation prototype is planned for low-volume manufacturing in late 2025, with large-scale production and sales expected in 2026. Parallel policy engagement will advocate for updated regulations and infrastructure to support wider adoption of small, zero-emission delivery vehicles.

UrbanTide will continue developing the uMove Rural module based on stakeholder feedback and seek to engage further with NHS Scotland Chief Executives, NHS Boards, and Local Authorities. Plans include pursuing procurement via NHS frameworks, applying for further external funding, and enhancing the tool's features for full deployment. UrbanTide also intends to target new healthcare customers across the UK and integrate the solution into NHS digital infrastructure, while continuing discussions with SEStran and NHS Assure to address adoption barriers and scale the product.

You. Smart. Thing. plans to expand AITM across Warwickshire hospitals through a new three-year proposal, deepen Uber integration, and scale DRT integration with Liftango nationwide. Commercial conversations are underway with George Eliot Hospital and Coventry University Hospital, and further engagement is planned with Living Map to support wider NHS navigation integration. YST will continue tracking impact data and seek procurement through NHS and local authority frameworks while pursuing broader adoption in other rural areas

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