

Beyond the City - transport outside cities

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University of Hertfordshire: Smart Mobility Unit (SMU)

- Teaching, including new MSc in transport planning, and data unit (LADU)
- Research (developing local, national & international partners/collaboration)
- “Walking the Walk”: UH has its own bus company, Uno, and a Travel Plan
- Consultancy State of the Nations Reports 1 & 2– Transport planning for a sustainable future
- ‘Masters Seminars Series’/Workshops – Sharing & disseminating best practice
- Multi-disciplinary
- SMU is part of other university teams, including Centre for Climate Change Research (C3R) and Centre for Future Societies

We have been running roundtables looking at the future of transport outside cities; there has been little research on this – [see here](#)

Transport outside cities

Transport research & policy focuses on cities but rural and peri-urban areas outside cities need attention

Counties like Hertfordshire or Warwickshire features:

- prosperous, high car ownership and severe traffic congestion
- no large cities but several smaller towns
- edge of city regions
- poor public transport - especially orbital
- substantial planned housebuilding



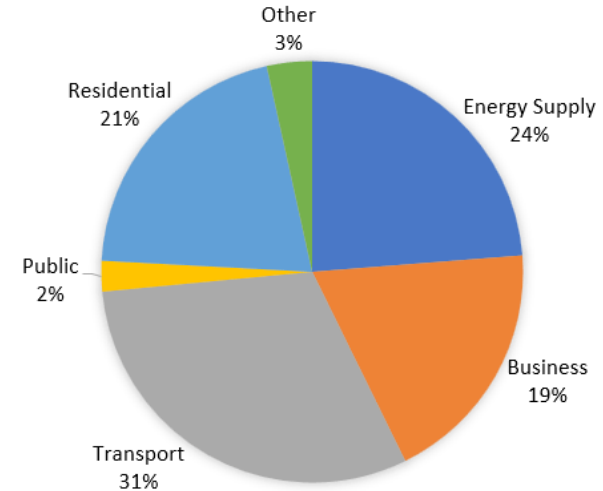
SMU ran several roundtables in 2020 and 2022 to develop a research and policy agenda for these places, and we are now running more with Transport East as a Rural Transport Learning Network

Why rural transport matters: carbon emissions

- Transport is the largest source of carbon emissions in the UK and they are increasing
- Shire counties transport carbon emissions per head are double those in London and two-thirds higher than metropolitan districts
- Urban/rural districts outside conurbations account for 60% population but 72% of transport carbon
- There are wide variations between comparable authorities so there are opportunities for change



UK CARBON DIOXIDE EMISSIONS BY SECTOR (2021)

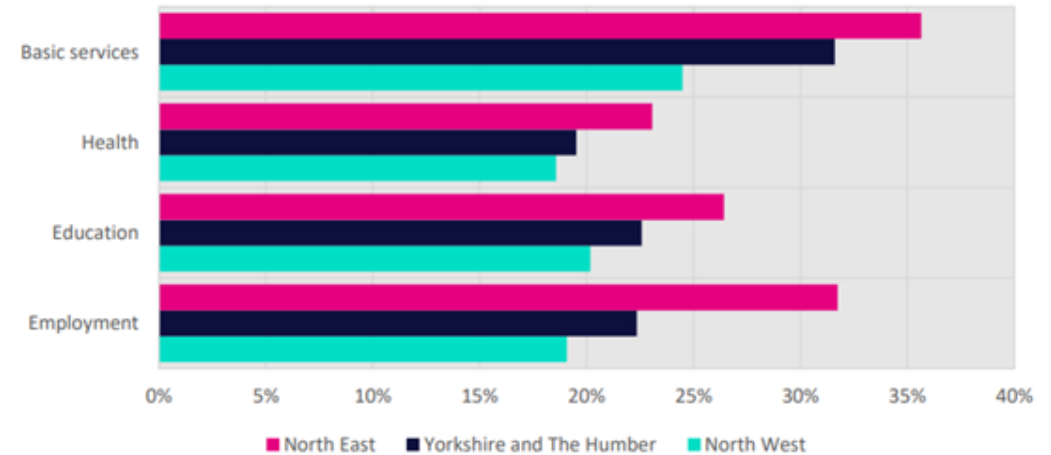


Source: Department for Business, Energy and Industrial Strategy (2022), 2021 UK greenhouse gas emissions: provisional figures

Why rural transport matters: social exclusion

- Those without car access in rural areas face reduced access to employment, education and services
- 21% of people in the North of England are at risk of transport related social exclusion, especially in coastal communities and former industrial areas

Graph 6.13 – Population at high risk within each domain of TRSE by region



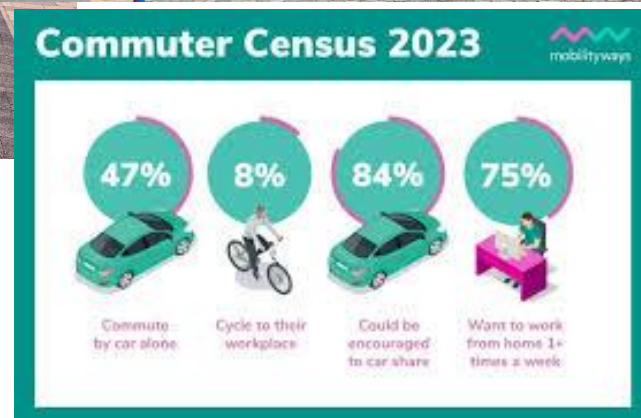
Starting point: data on transport patterns and their impacts, e.g. in Hertfordshire:

- Travel patterns: there is good data – in 2018 48% of trips in Hertfordshire were made by car drivers, 21% by car passengers, 26% on foot, public transport 10% (<https://www.hertfordshire.gov.uk/media-library/documents/highways/transport-planning/transport-and-accident-data/ttdr/traffic-and-transport-data-report-2023.pdf>) - walking has risen since Covid.
- Air pollution: <https://addresspollution.org/> will give a free air quality report for your address – e.g. Harpenden High Street exceeds 2 World Health Organisation limits and is in the 68th percentile
- Road casualties in 2019 in Hertfordshire went down but serious casualties went up <https://www.hertfordshire.gov.uk/media-library/documents/highways/transport-and-accident-data/hertfordshire-road-casualty-facts-2020.docx-1.pdf>
- Carbon emissions: the county's transport carbon emissions are higher than the national average and in some areas are very high <https://www.carbon.place/> (place-based carbon calculator) – e.g. Harpenden South car driving = 1620kg CO2 per head, vs England average of 962
- Carbon emissions from commuting in Hertfordshire are at or above the national average (e.g. East Herts is 652 average commuting emission levels), with 21% zero carbon commuters <https://www.mobilityways.com/map/>



The good news is that there are options for tackling these challenges and impacts

- It is possible to have good rural public transport
- Active travel – walking, wheeling and cycling – can be a real option for travel outside cities
- New technology can bring new travel options
- New housing does not have to be car-based



Rural public transport

- **Public transport:** it is possible to improve rural public transport, see www.transportforcornwall.co.uk.

Key features: - integrated timetables, good interchanges, single ticketing system, reduced fares, improved branch lines. Other areas with new bus funding are providing opportunities to do more of this,

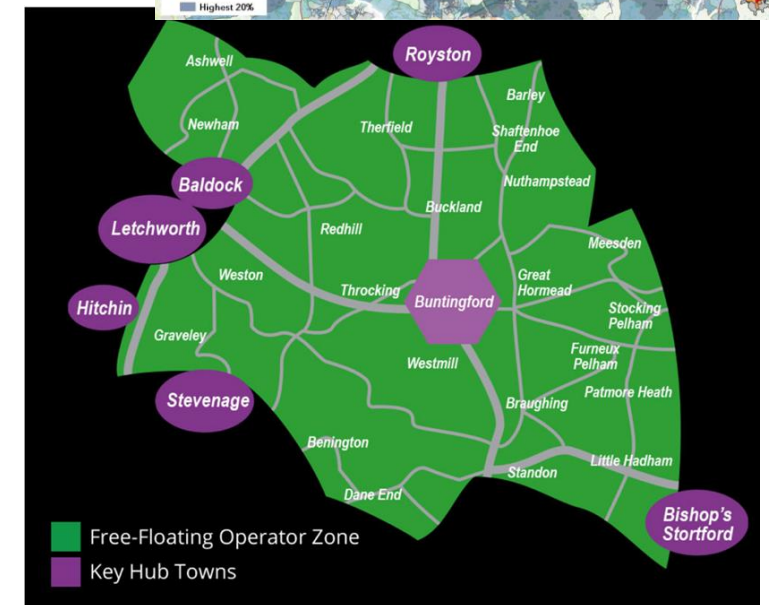
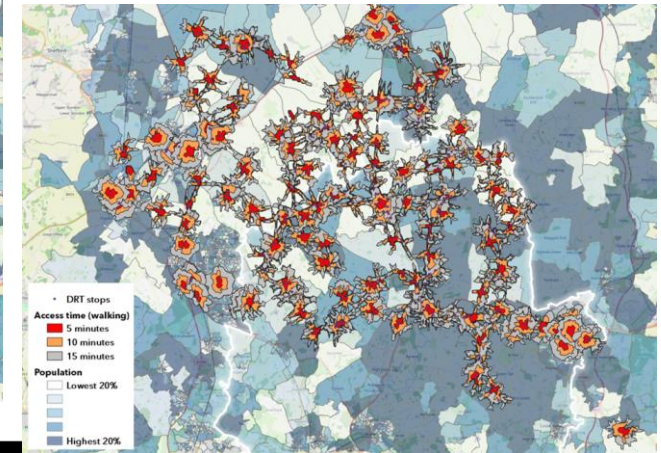
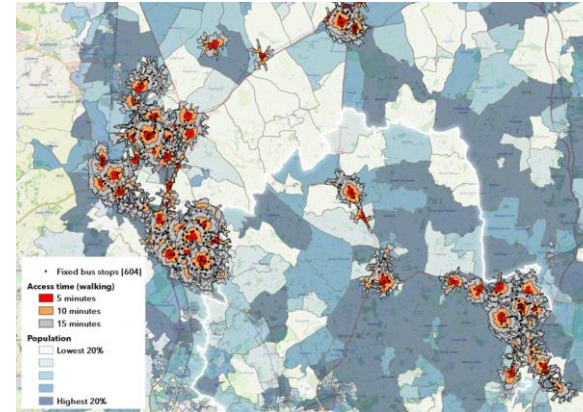
- **Rural rail lines** can be revived and upgraded, and support communities they serve, see <https://communityrail.org.uk/>
- **Demand responsive transport:** there is debate about this, but there are clear cases for DRT.

With DRT, there are different sorts: **providers** like ViaVan, www.viavan/solutions, journey **aggregators** like Zeelo, <https://zeelo.co> and Ridetandem, www.ridetandem.com and **software providers** with back-office support like Padam, <https://padam-mobility.com/en/>



DRT: HertsLynx

- New DRT service in North Herts, launched 2021
- On-demand service via app, website and phone
- Higher proportion of area served, with shorter journey times than fixed line
- Highest user groups: 16+ students and rail commuters - both would previously have used cars
- Platform now includes dial-a-ride; possible extensions include SEN school travel, community transport and maybe non-emergency patient transport



Short distance car trips

- A lot of car journeys even in rural areas are very short: in one Hertfordshire survey, 35% of car driver trips and 41% of car passenger trips were under 3 miles
- In principle, walking and cycling could replace some of these
- For journeys to schools, walking buses and school travel plans can encourage walking and cycling and there is now the “school streets initiative”, <http://schoolstreets.org.uk/>
- Cycle parking at railway stations is often well used
- Green routes can be part of neighbourhood plans <https://www.deepingsgreenwalk.co.uk/>

However, there is a need to give priority for pedestrians and cyclists along and across main roads



Bike hire, including e-bikes

- Bike hire is spreading out of cities into smaller towns; for example the Watford bike hire scheme - <https://beryl.cc/bikeshare/watford> - has 300 bikes and 72 bays
- These include e-bikes, which can be a game changer – they can make cycling easier and more attractive for many more people <https://www.creds.ac.uk/e-bikes-could-slash-transport-emissions-and-get-britons-back-to-work/>
- E-cargo bikes can be used for deliveries even in quite small and hilly places, see <https://www.cargodale.co.uk/>



Tourism and visitor travel

- Leisure travel accounts for the most mileage in the UK, most by car
- This can change: Snowdonia has pre-booked parking, park and ride “Sherpa” shuttle buses and traffic restrictions for those without parking.
<https://www.liverpoolecho.co.uk/news/uk-world-news/rules-visiting-north-wales-snowdonia-20695902>
- New organisations are promoting car free tourism: Good Journey – www.goodjourney.org – and the Eco Attractions group, www.ecoattractions.com
- There is international good practice on sustainable tourism and travel, see www.lowcarbontourism.org, but travel **at** destinations is easier to change than travel **to** destinations, and fragmented governance in areas like National Parks makes action on transport difficult



Other issues from the roundtables

- **Resilience:** disruption to transport networks in rural areas has different and sometimes greater impact than in urban areas, but the capacity and funding to address this is sometimes lacking <https://www.gov.uk/government/publications/lessons-learned-from-extreme-weather-emergencies-on-uk-highways>
- **Regulation:** rural transport services run under several different regulatory frameworks (taxis, buses, community transport etc), is there a case for a “sandbox” to try out new combined services?
- **Funding:** need for long term funding for rural transport (some just promised as part of post HS2 funding, but only capital funding and beyond next election)
- **Spatial planning:** where new homes are built and the layout and design will have an impact on travel and on carbon emissions
- **Community involvement:** there are many great community-led initiatives improving transport in rural areas, but they are often overlooked, and communities sometimes feel left out of decisions on transport

New housing in urban extensions tends to be car-based

- Traffic created by building housing in the wrong place: “cowpat developments”
- Parking and road access takes up so much room it has a severe impact on the public realm
- Few urban trees and gardens – little space left
- Homes without connections for pedestrians, cyclists and buses – “red line” issues

See www.transportfornewhomes.org.uk and www.createstreets.com



But better practice does exist

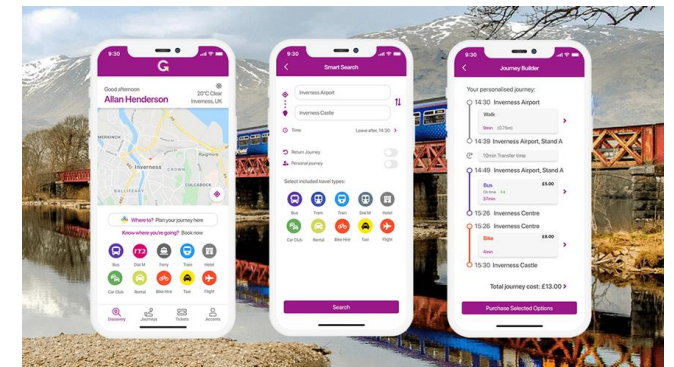
- Kidbrooke: limited parking, places to walk to
- Poundbury: 32% of residents walk to work, local facilities
- Shawfair: built around station on Borders rail
- Derwenthorpe, York: local facilities and good walking routes
- New Lubbesthorpe: buses from day 1



Transport for New Homes checklist
<https://www.transportfornewhomes.org.uk/the-project/checklist-for-new-housing-developments/>

Bringing it all together

- Mobility hubs – bringing transport together with bike hire, car clubs, e-scooter hire and public transport
<https://como.org.uk/shared-mobility/mobility-hubs> and <https://www.englandseconomicheartland.com/evidence-base/mobility-hubs-business-case-guidance/>
- Delivery hubs with cargo bikes for first/last mile
- Total transport: linking different rural transport contracts together
- Joint ticketing and information – “mobility as a service”, even in the Highlands - <https://gohi.app/>



Travel behaviour can change

Local Sustainable Transport Fund 2011-15 outcomes:

- Car use fell relative to other areas
- Adult cycling increased by 6.6% relative to other areas
- 4.1% reduction in car commuting
- Per capita carbon emissions fell by 6.9%
- Projects were very high value for money

Cycling Cities and Towns Projects saw 24-29% average increase in cycling over 5 years

And good consultation and public involvement can create consensus and bring people together



Conclusions

- It is possible to cut vehicle mileage and give places outside cities good alternatives to private car use. Universal SUVs are not the only option!
- The roundtables have found and brought together a wide range of groups and organisations working on aspects of rural mobility, and have been able to showcase many interesting projects and initiatives
- From all this, we have started to develop a toolkit for rural areas including approaches that can be started immediately, for example on commuting and school travel; enlisting travel generators such as employers and leisure providers is a promising area of focus
- There is very limited research on transport outside cities, including on the measures featured in the roundtables - more research is needed and the University with others is starting to do this
- Opportunities exist for joining up and making better use of existing transport; new governance structures, long term funding and revised regulations could help this
- “A just transition”; new approaches to rural mobility need to be inclusive, involve local communities and include needs of women, children and older people and their journeys, and support low-income groups.



Thank You

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