



Key

- 1 Multi-use hub
- 2 Last mile delivery pods
- 3 Telephone triage
- 4 Online education from home
- 5 Car sharing
- 6 Drone deliveries
- 7 Autonomous tractors
- 8 Demand responsive bus
- 9 Road traffic sensors
- 10 Local businesses
- 11 E-bike hire
- 12 Autonomous vehicles
- 13 Public WiFi
- 14 Delivery lockers
- 15 Real time bus timetable
- 16 Electric car charging points
- 17 Co-working space
- 18 Village/Town hall clinics
- 19 Multi-use space
- 20 Rail freight
- 21 Park and ride/transport hub

Tool	Enhancing existing public transport (smart ticketing, dynamic scheduling etc.) 	Self-drive, carpool and ride-share innovations 	Independent transport (cycling, walking and electric micro-mobility) 	Autonomous vehicles (people and goods) 	Digital and online innovations (working from home and internet orders) 	Hubs 
Rural need						
Community cohesion	Encourage public transport use; simplify payments and provide confidence to travellers.	Potential to generate more social mixing and companionship. Social enterprises and volunteers to operate schemes. Scope for drivers to offset cost of travel by offering lifts.	Promote use of local services and community facilities. Community groups work together to develop cycle hire schemes, travel together for safety etc.	Enable less mobile individuals to get out of the house without feeling reliant on other people. <ul style="list-style-type: none">Potential limitations for those with poorest physical mobility.	Online hubs and digital training centres can promote community cohesion. Village websites and social media spaces integrate with physical community activities. <ul style="list-style-type: none">Requires comprehensive mobile/digital coverage.	A transport hub would provide the footfall to sustain more essential village services and activities.
Accessing key services (shops, banks, PO etc)	Sustain market town high streets through increased footfall.	Highly realistic for journeys that are not time critical. <ul style="list-style-type: none">Requires cultural change.	Support local businesses as part of a mix of retailing behaviours. <ul style="list-style-type: none">More limited functionality for bulkier shopping trips.Requires secure parking spaces.	Could fulfil 'first and last mile' links to faster public transport. Reduce rapid increase in 'white van' traffic to the home. <ul style="list-style-type: none">Requires large scale network implementation with hubs, 5G, trackways, plus blockchain and microcontainerisation for freight.	E-retail and e-banking are growing, but excludes those not online. <ul style="list-style-type: none">E-retail increases freight journeys to rural homes.Requires upskilling and confidence among users.	Retail delivery lockers reduce intra-village freight travel. Provide ATMs at the hub. Access point to fast travel to town centres can strengthen high streets.
Education, training and skills	Encourage public transport use and align school/college hours to transport timetables. Smart ticketing systems can allow easier implementation of subsidies for education-related transport.	Common destinations make car-shares realistic – potential to run from college or from rural community. Safeguarding and payments to drivers are possible. <ul style="list-style-type: none">Car-share reliant on willing volunteers with driving licences.	Desirable among young people if safe and mode-switch is possible. Data could be collected through wearable technology.	Could fulfil 'first and last mile' links to faster public transport. <ul style="list-style-type: none">Needs dedicated trackways and 5G.	High potential for online courses, especially among work-based learners. <ul style="list-style-type: none">Less desirable for younger and full-time learners.	Co-working and learning spaces for students and professionals. Bridge time between transport to college and home.
Health and well-being	Potential to link different forms of transport through joined up information and ticketing, which could include non-emergency health travel.	Enable better coordination across existing voluntary patient transport schemes. Common destinations allow for more journey sharing, especially if outpatient appointments were coordinated by postcode.	Could promote healthier lifestyles. Cycling: health care workers cycle to clients. <ul style="list-style-type: none">Less realistic for those who are already unwell or less physically mobile.Distances may make cycling impractical.	First and last-mile links to hospitals. Improve mobility of health and social care professionals. Secure, autonomous delivery of prescriptions. <ul style="list-style-type: none">Currently limited by challenges of rural environments to implement technology.	Blended e-health and personal healthcare is realistic with new digital technologies. <ul style="list-style-type: none">Requires 5G and cultural acceptanceOver-reliance on e-health could worsen isolation.	Community space could be used by mobile health care services.
Accessing employment	Allow more rural people to access a wider choice of jobs. Improve access to opportunities for seekers.	Allow more rural people to access diverse jobs; including shift work at irregular hours. Reduce isolation for jobseekers.	Integrate healthy lifestyles into working practices.	Provide first and last-mile links to public transport networks.	Allow jobseekers better access to information. Make online interviews more realistic. Open up gig-economy opportunities to rural people.	Enhance commuting experience. Enable workers to be based in co-working spaces.
Business growth	Simplify access for tourists/customers and workers. <ul style="list-style-type: none">Disproportionate costs to smaller rural travel firms.	Improve access to workplace with potential for work-based schemes. Improve labour market options for employers.	Tourism options built around cycle hire, enhanced safety and signage on routes. Potential for rural commuting with safe routes and funding (e.g. wheels2work).	Entrepreneurial opportunities in the transport sector. Tourists, customers and employees access workplace/destination more easily.	5G opens up new business tools for efficiencies, collaboration and home manufacture.	Rural businesses become more accessible and the hub provides outlets for sales and other activities. Co-locate with flexible co-working and networking spaces.
Environmental protection	Encourage people away from the private car. <ul style="list-style-type: none">Requires government policies to promote behavioural change.	Reduce private car miles. Increase use of e-vehicles in car-pools.	Reduces carbon footprint.	Advances in logistics combined with automation can reduce congestion and freight on rural roads.	Reduces carbon footprint of travel.	Hubs can support greener travel, reduce some journey needs and provide a focus for investment in charging points.

USING THIS TOOLKIT

Our research identified that the needs of rural areas vary considerably between regions and even between nearby villages. The text in the boxes above provides some generic commentary about the potential of new mobility technologies to meet certain rural needs.

Pink text highlights barriers that must be addressed too. The toolkit is the starting point for locally-focused conversations to inform investment and planning decisions as well as community-led actions that embrace technology to improve rural living.

A blank version is downloadable at: <https://interpretingrurality.blogs.lincoln.ac.uk/rural-mobility-toolkit> and we suggest that this is printed at least on A3 and used for local consultation with rural communities, and for conversations with transport and technology providers to inform strategic priorities for rural mobility.