

# READY FOR INNOVATION

THE OPPORTUNITY FOR  
INNOVATION IN RURAL  
TRANSPORT

In Association with  
**FUTUREGOV**



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# INTRODUCTION

## VITAL TRANSPORT

Rural UK communities are currently facing unprecedented transportation challenges.

Low population density in rural areas has always made providing practical and affordable public transport difficult. However, cuts to public funding are making it impossible to sustain current transport services; hundreds of rural bus services have been either reduced or removed entirely, with further cuts inevitable.

Accessible and affordable transport is a lifeline for many rural residents. It connects people to opportunities for socialising, working, learning and healthcare. Effective transport networks enable rural communities to contribute to economic growth and support diverse and thriving populations.

With nearly one out of every five people in the UK living in a rural area the direct and indirect costs of poor mobility both to individuals and society are huge.

## URBAN INSPIRATION

At the same time as rural cuts, residents in urban areas of the UK are benefitting from an unprecedented wave of innovation.

Private companies such as Citymapper (route-mapping), Uber (on demand ride-hailing), DriveNow (car-sharing) and their peers have taken advantage of the smartphone revolution to radically disrupt traditional transport models. Urban passengers can now choose from a wider range of affordable and accessible mobility options than ever before.

Yet, to date very few organisations are exploring the opportunities for similar digitally-enabled innovation in rural transport networks. There is a sense of waiting for autonomous vehicles to solve rural problems. Yet if current trends repeat this will mean a long wait for rural areas.

However, we believe that the conditions to support radical change already exist for those bold enough to explore further.

## RURAL OPPORTUNITIES

This guide seeks to provide practical insights and inspiration for anyone who has an interest in improving transport opportunities for rural communities.

In creating this guide the authors carried out in-depth user research with people from four of the main stakeholder groups in rural communities, road-based transport; passengers, suppliers, planners and regulators.

We've distilled the findings from our research and provide an overview of the important considerations we hope to act as a springboard for people to explore the opportunity further.

**Rural communities are ready for transport innovation. Let's not leave them waiting any longer.**

## WHO THIS GUIDE IS FOR?

This guide is intended to provide readers with actionable insights into the needs and capabilities of rural communities. It is designed to be a valuable tool to inform the design of innovative new approaches to rural transport.

This guide is relevant to anyone working in the fields of transportation, digital innovation or with an interest in helping to support thriving rural communities.

## ABOUT THE AUTHORS

This guide was commissioned and guided by the Transport Systems Catapult ([ts.catapult.org.uk](https://ts.catapult.org.uk)) and was researched, written and created by FutureGov ([wearefuturegov.com](https://wearefuturegov.com)).

**The Transport Systems Catapult is the UK's technology and innovation centre for Intelligent Mobility, harnessing emerging technologies to improve the movement of people and goods around the world. We are here to support business growth, increase the UK's share of the global Intelligent Mobility market, and attract investment - creating jobs and generating long-term economic growth.**



James Datson - Principal Technologist

FutureGov is a digital design agency for public services. Since 2015 FutureGov has worked on a Department for Transport funded project to explore innovative new approaches to rural transportation in a joint partnership with Essex and Suffolk County Councils.

## METHODOLOGY

FutureGov specialises in delivering innovative changes to public services by bringing together the three design disciplines of service design, digital product design, and organisation design. This guide is based upon findings from research informed by a design approach to understand the problems facing rural communities, undertaken with users in rural communities of Essex and Suffolk between 2015 and 2017.

The research methodology adopted is explained in greater detail at the start of each section. Techniques employed range from ethnographic research methods - including shadowing, interviews, and surveys - through to workshops with industry experts and user testing of prototype digital transport solutions.



## SUBJECTS OF THIS GUIDE

IN CREATING THIS GUIDE THE AUTHORS HAVE UNDERTAKEN IN-DEPTH RESEARCH WITH FOUR IMPORTANT STAKEHOLDER GROUPS IN RURAL TRANSPORT.

We will profile each group in turn to provide would be innovators with an introductory overview of their challenges and potential opportunities for innovation.

### PASSENGERS

Where is the demand for new services and what do passengers value?

### SUPPLIERS

What types of services could meet this demand and are suppliers capable of delivering them?

### LOCAL AUTHORITIES

What role could local authorities play and how receptive are they to change?

### REGULATORS

What challenges do current regulations pose to innovators and how supportive are regulators to change?



# PASSENGERS

## TRANSPORT FOR RESIDENTS

### PASSENGERS – AN OVERVIEW

For people living in Britain's rural communities, transport can be defined by choice, or rather the lack of it.

#### RELIANCE ON CARS

In the countryside the car is king. For those without regular access to a car, affordable mobility options are significantly limited. A common assumption is that the vast majority of people living in rural areas have chosen that life style and therefore have the means to get around, yet for a growing number of residents this isn't the case.

All too often during our research with residents living in rural towns and villages we heard how their only choice for making a journey was between either an infrequent bus or an expensive taxi.

Effective bus routes exist, typically around main arterial roads, but getting to the bus stop isn't possible or practical for every resident.

Planning mass transit in sparsely populated areas presents challenges to fixed route bus operators who focus services on the most popular routes. This can leave residents living off these routes facing impractical and uncoordinated transfers between services to reach their destination, which discourages them from travelling via public transport.

The inevitable result when faced with such limited options is that people travel less and stay within a small local area, thus reducing their access to opportunities and this impacts the community.

Given the cost and practicalities of car ownership, this lack of choice disproportionately affects the more vulnerable groups of society; the old and the young, the poor and the less able.

#### SUPPRESSED DEMAND

This lack of choice isn't by choice for rural residents. Passengers across different demographics and ages share a common desire for the greater independence that effective and affordable transport options can enable. This could be easier access to existing services or expanding their possibilities through enabling journeys to new destinations.

In this section of the guide we look at the profiles of residents who have the most to gain through innovations in rural transport. We introduce some of the challenges they face, the places they'd like to travel and factors to consider when designing new services.

Each profile includes an illustrative map of typical transport journeys and desired journeys to help provide example user case scenarios.



## QUESTIONS COVERED

- ? What are the contexts in which innovations in rural transport are likely to have the greatest impact and uptake with passengers?**

We highlight three passenger centric opportunity areas for innovators to consider when developing rural solutions.

- ? Who are the potential passenger groups that are most likely to benefit from innovation and what are their needs?**

We provide case studies for four different passenger groups who we believe are the likeliest to benefit from new modes of transport.

These case studies highlight opportunities and illustrate practical examples of factors to consider when designing solutions for these resident groups.

- ? What design considerations should innovators be aware of?**

We summarise some of the most important success factors when designing new solutions to attract rural passengers.

### METHODOLOGY

FutureGov's research team have been afforded unique access to residents in two large rural counties over the course of 18 months as part of a joint partnership project with Essex and Suffolk County Councils.

Information in this section is drawn from a composite of different research methods, including:

- Interviews and journey mapping with over 80 residents
- Forums with two local passenger transport groups
- Shadowing passenger journeys on public transport
- User testing prototypes of potential digital transport options with residents
- Interviews and data analysis with transport providers and staff from council passenger transport teams

The passenger profiles have been anonymised and are composites constructed from insights gained from several interviews with different passengers to help provide a representative profile.

## PASSENGERS OPPORTUNITIES – INDEPENDENCE

A person’s level of independence in rural communities is intrinsically linked to their access to transport.

**At one end of the scale are car owners.** They have the flexibility to go where they want, when they want. They are highly unlikely to switch to alternative new modes of transport unless they can guarantee similar levels of convenience at a lower cost.

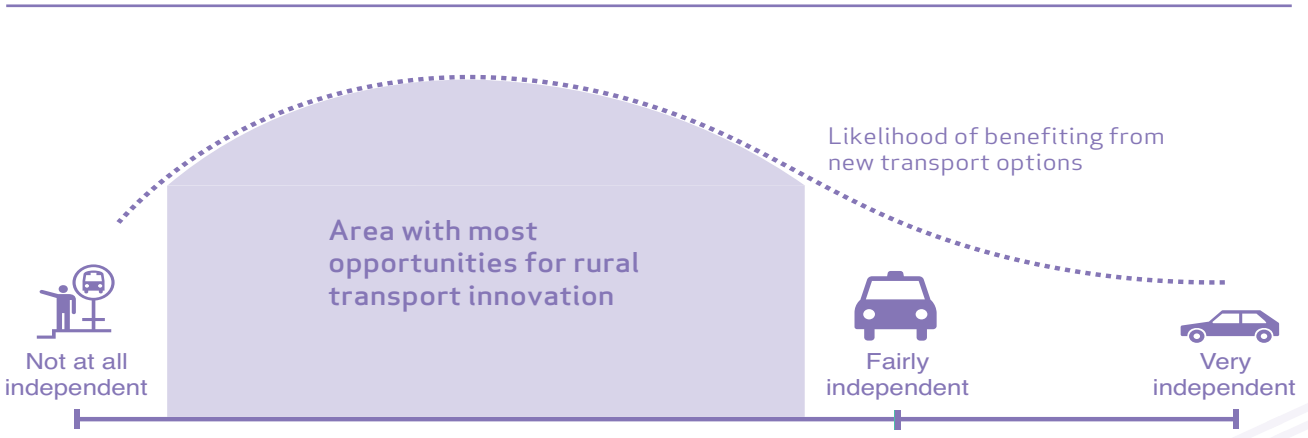
**At the other end of the scale, are socially isolated residents.** These residents currently make few if any journeys and their level of independence is largely unknown. They typically will require a high level of effort from suppliers or local community members to encourage them to shift behaviour and try new transport options.

The category of users who have the greatest potential to benefit from improvements in rural transport are

those with **lower levels of independence.** This group encompasses a wide range of ages and personal circumstances. It includes young people without access to a car or convenient bus services, older people who no longer drive and single car or no car families.

The lack of existing viable options has created surplus demand amongst this group of residents for mobility. The challenge for transport providers lies in identifying the hooks to attract each user group and offer convenient, reliable and affordable services which fit their lifestyles.

We explore the needs and behaviours of people within this low independence group in more detail in our passenger profiles.



We explore the needs and behaviours of people within this low independence group in more detail in our passenger profiles.

## PASSENGERS OPPORTUNITIES – FLEXIBILITY

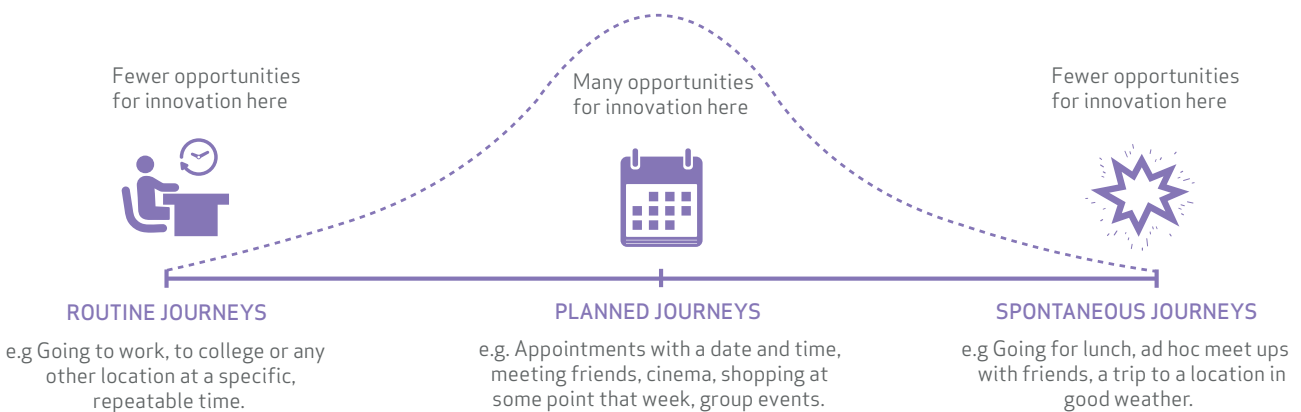
The types of journeys which people want to make can broadly be split into three categories based on passengers flexibility around departure and arrival times; routine, planned, and spontaneous.

Creating innovative rural transport services is difficult at either end of the scale (although making efficiencies is possible, through smarter routing for instance).

For routine journeys to and from a place of work or education, users are inflexible on time as any perceived delay can have serious repercussions. Passengers' transport habits are ingrained and tough to break.

At the other end of the scale, supplying the requisite flexibility to deliver spontaneous journeys is extremely tricky in rural areas. Low population density makes it hard to ever have sufficient transport supply on hand to satisfy instant demand.

Planned journeys, where the person knows in advance where they want to go, are likely to be those with the greatest opportunity to be delivered by new transport methods. Here users typically have more notice to consider their journey method ahead of time. They also have a greater degree of flexibility over the time and even the date of either their outbound or return journey.



**Planned journeys, where the person knows in advance where they want to go, are likely to be those with the greatest opportunity to be delivered by new transport methods.**



## PASSENGERS OPPORTUNITIES – TRANSITIONS

With most rural residents relying on cars to get around, there tends to be relatively lower awareness of the alternative transport options available compared to urban residents.

This lack of knowledge of alternative options increases the potential for negative impacts when resident’s experience significant transition moments.

Transitions are where a person’s routine mobility options are disrupted owing to a particular event or change in circumstances.

**Example of transitions include:**

- Changing/starting school
- Changing job
- A change in personal health
- Separation, divorce or bereavement

These changes in circumstances are likely to alter a person’s travel requirements and cause them to seek new mobility options.

Transitions present an opportunity for rural communities and transport suppliers to raise awareness of new services as users will likely be more receptive to consider alternatives to cars.

Partnerships with local touch-points where residents will go at times of change (e.g. schools, job centres, healthcare facilities etc) to promote alternative options are vital to help raise residents awareness of their options in a timely way.

Such arrangements offer the potential to benefit residents, partners and suppliers but require coordinated efforts and brokerage.



PEOPLE STILL WISHING TO TRAVEL



PLACES WHERE THEY RECEIVE ADVICE AND INFO



TRANSPORT OPTIONS

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**Transitions present an opportunity for rural communities and transport suppliers to raise awareness of new services ...**

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## PASSENGER PROFILES

In this section we'll look more closely at the mobility challenges and needs of four rural residents. Each person profiled is a representative example for a passenger group which typically experience relatively low levels of travel independence and who's demand for mobility is suppressed.

The profiles use first hand quotes and practical examples to help illustrate context and considerations for innovators and transport suppliers to bear in mind when designing new approaches.



**JENNY - Student**

Lives far from most attractions, but wants to meet up with friends outside of school.



**KATE - Parent**

Drives daughter to school, but is looking for a cheaper alternative.



**CASEY - Shift Worker**

Doesn't own a car and gets a lift to and from work at a local care home.



**MRS SKINNER - Retiree**

Uses demand responsive service but needs better provision to get to her GP.



## STUDENTS

### BIO

Jenny, aged 15, is a student and lives in the village of Cock Clarks, Essex with her parents and her younger sister. Both girls go to school in a nearby town. Their dad gives them a ride in the morning and their mum picks them up in the afternoon. Jenny plays tennis twice a week and her favourite place to meet friends is Nando's.

### CONTEXT

Over 55,000 students live in rural Essex and the proportion dependant on parents or public transport to get around is increasing. This is in part due to changes in education legislation as well as the trend for children to stay living at their parent's house for longer than previous generations.

### CURRENT CHALLENGES

Limited bus service in Jenny's village means that she's reliant on her parents to give her lifts to activities or see friends.

Next year Jenny has to move to a new school to attend 6th form, meaning her dad will no longer be able to drop her off. A taxi is currently her only travel option.

### OPPORTUNITIES & DEMAND

#### • Seeing friends after school and on weekends

*"I have friends who live in Woodham, Burnham and Chelmsford. I would use a bus if it existed to get around and see everyone but cant' right now"*

#### • Post 16 Education & Training

Since 2015 young people aged 16 - 18 are legally required to be in some form of education or training. However they aren't entitled to home to school transport from the council. This has created demand for affordable transport options from young riders.

**SUMMARY** - Jenny and her friends are digitally confident. However, existing local transport services aren't easily visible and bookable online. Nor are they scheduled or promoted to meet the needs of local young people.

### DESIGN CONSIDERATIONS

#### • Safety

Young people often prefer to be picked up from landmarks

*"I wouldn't get picked up from my house, I get cabs to drop me off in the closest open area - I find it safer - just knowing that people don't know where you live"*

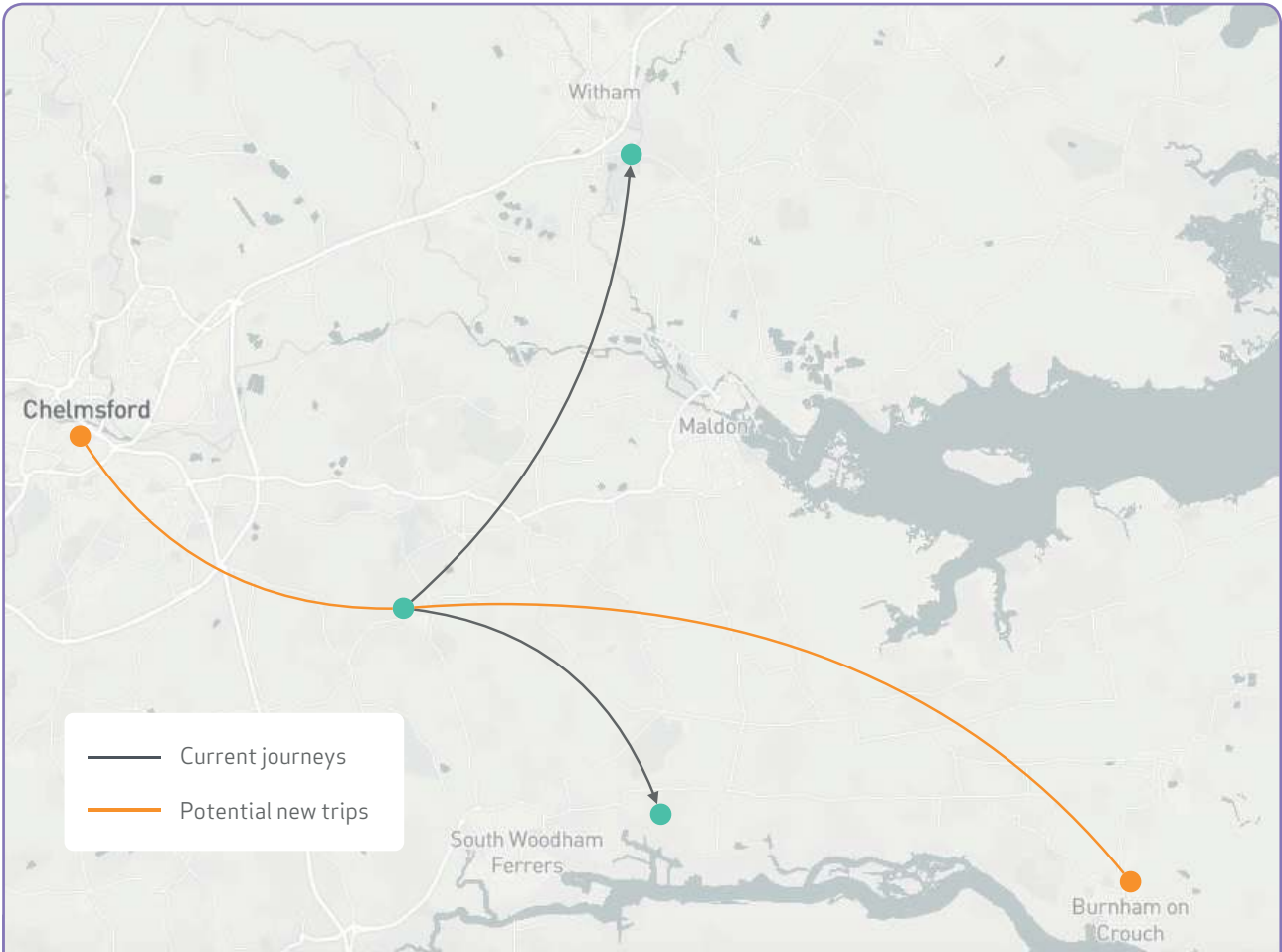
#### • Booking and paying online

*"I try to avoid calling people if I can...ideally my mum would prepay so I can book rides"*

#### • Peer endorsement is crucial

*"If my friend had used it and everything went smoothly, I would give it a go, but I wouldn't want to be the first one to try"*

## JENNY'S JOURNEYS



### Currently:

Driven to and from school in South Witham. Dropped off locally to play tennis.

### Opportunities:

Journey to and from college in Burnham-on- Crouch, 10 times a week with varying start and end times. Trip into town to meet up with friends, once a week on Saturday.

### Considerations:

Happy to pre-book transport as it means it will definitely turn-up, unlike village bus. Parents want to pay for journeys, and know who is picking her up. Partnerships with colleges to map students demand. Increased exposure for transport service plus college can attract more applicants.

## PARENTS

### BIO

Kate, 42, lives in Rettendon, a village in rural Essex with her two school age daughters. Kate drives her 11-year-old daughter to school daily and it takes 20 minutes each way, but she recently lost her job and needs to sell the car.

### CONTEXT

Single parent, single car families don't necessarily fit the stereotypical profile of rural residents. Yet lone parents account for 12% of the rural population in Essex. Lack of transport options forces constant compromises. This is often more difficult if family circumstances change and residents can't move, leaving them increasingly isolated.

### CURRENT CHALLENGES

There is no bus to take Kate's daughter to school on time and the nearest train station is a long, dark walk from their home so she doesn't feel her daughter is safe. Kate worries that her daughter will now also miss out on after school activities. Kate wants to study a nursing course at a nearby college but has ruled it out as there are no direct transport links from her village.

### OPPORTUNITIES & DEMAND

#### • Funding daughters journeys on bookable transport

*"Right now, I'm at a stage where I can't afford to run the car. Something like a bookable bus would be a weight off my mind"*

#### • Expanding own job prospects

*"I'd like to re-train but getting to courses is harder without the car"*

Local education providers and transport suppliers are currently missing out on opportunities to attract more local mature students.

**SUMMARY** – Parents like Kate who can't be in two places at once want affordable alternative options to enable the best opportunities for themselves and their children.

### DESIGN CONSIDERATIONS

#### • Safety

Preference for daughter using shared transport over taxis. Updates on her daughter's bookings, who is driving her and confirmation she reached her destination all provide valuable reassurance.

*"I need to trust it to turn up and take care of her"*

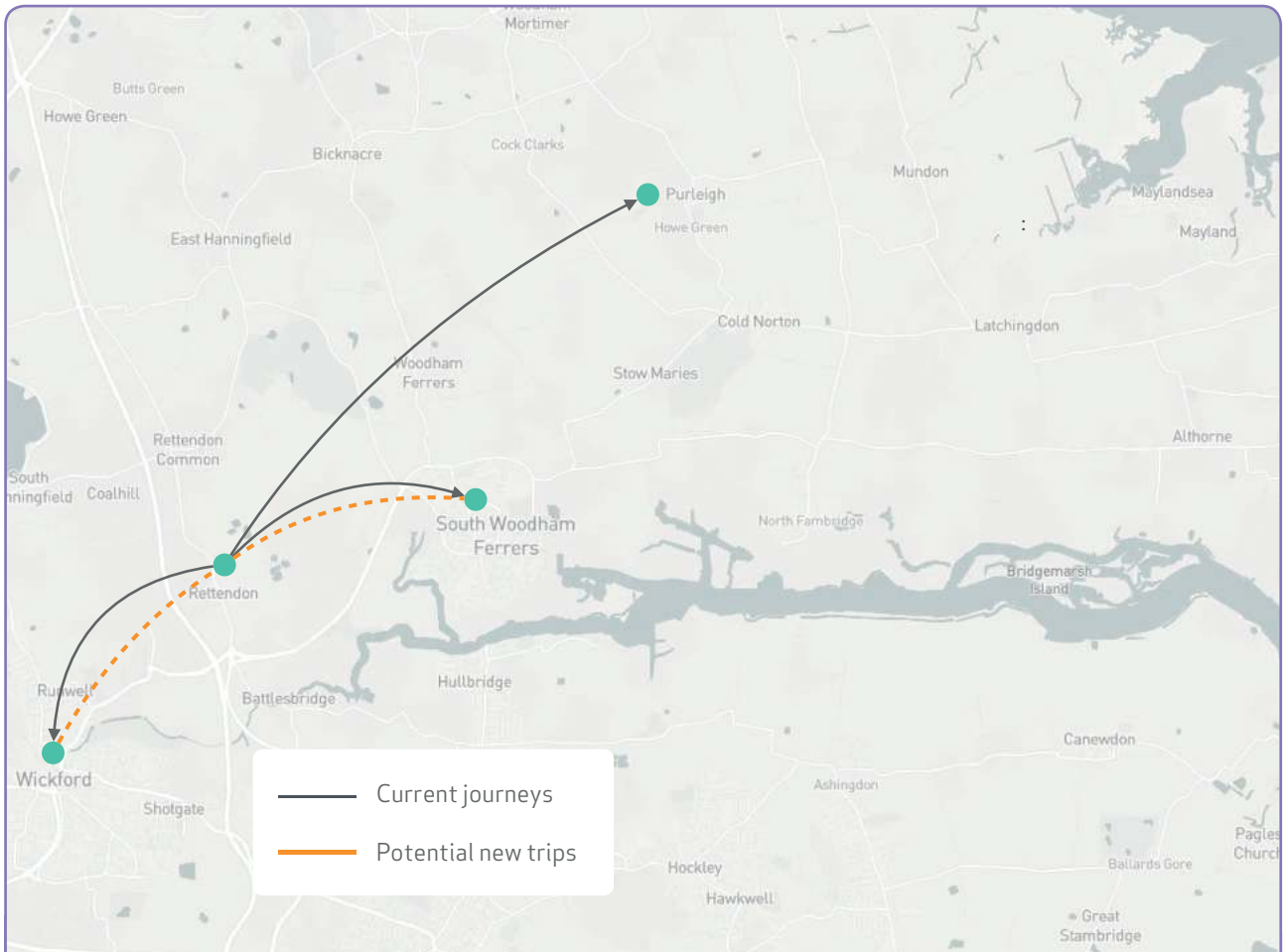
#### • Linked accounts and flexible, cheap payments

*"I'd want something I can top up for her and she can book herself, without carrying cash"*

#### • Availability at peak times

*"There are always trade offs between getting to work on time and taking her to activities"*

## KATE'S JOURNEYS



### Currently:

Drives her daughter to school, 20 minutes away. Drives to the shops. Visiting grandparents living in a rural village.

### Opportunities:

Using alternative transport to take her daughter to school. Use other transport herself instead of buying a new car to make trips to the shops and adult learning courses.

### Considerations:

Kate wants to give her daughter access to her own account so that she can be independent and book transport as needed. Services may want to look at package offers to incentivise users which reflect the emphasis on community characteristics in rural areas, e.g family travel passes and schemes. In this instance it could help incentivise not only Kate but also her parents and her daughters, to travel.

## SHIFT WORKERS

### BIO

Casey 23 lives in Asheldham in rural Essex and works as a carer at a care home in Tillingham. She has a five year old son and doesn't drive so she doesn't go out of her village much. She gets lifts from her colleague's husband to go to work and when she needs to go somewhere else – like take her son to hospital – she relies on her mum to drive them.

### CONTEXT

Essex has over 50,000 part time rural workers working less than 30 hours a week. The odd hours and low wages make it hard for both employers and employees to find transport solutions, yet the local health and care sectors rely on shift workers to operate.

### CURRENT CHALLENGES

Casey has to turn down extra shifts if they don't match times when her colleague can work.

Casey is frustrated that her inability to get around prevents her from meeting new friends and arranging play dates for her son.

### OPPORTUNITIES & DEMAND

#### • To earn more money and improve career prospects

*"I'm encouraged to get a carers qualification from a college in South Woodham but I haven't been able to get there"*

Being able to take on more shifts would not only help Casey but also help her employer at the care home be less reliant on high cost agency staff.

#### • Not being dependant on family

*"I don't feel great about relying on my mum to get around"*

Casey would like to be able to do more things for herself and her son but doesn't for fear of over burdening her mum.

**SUMMARY** – Although the journey distances are small they are insurmountable for Casey when her family aren't around to help. Hers and her employer's regular patterns of demand for transport provide a great opportunity for a supplier.

### DESIGN CONSIDERATIONS

#### • Spontaneity

Whilst Casey will normally know about shifts weeks in advance, last minute opportunities pop up

*"I might get a more expensive option if I just want to get somewhere quickly"*

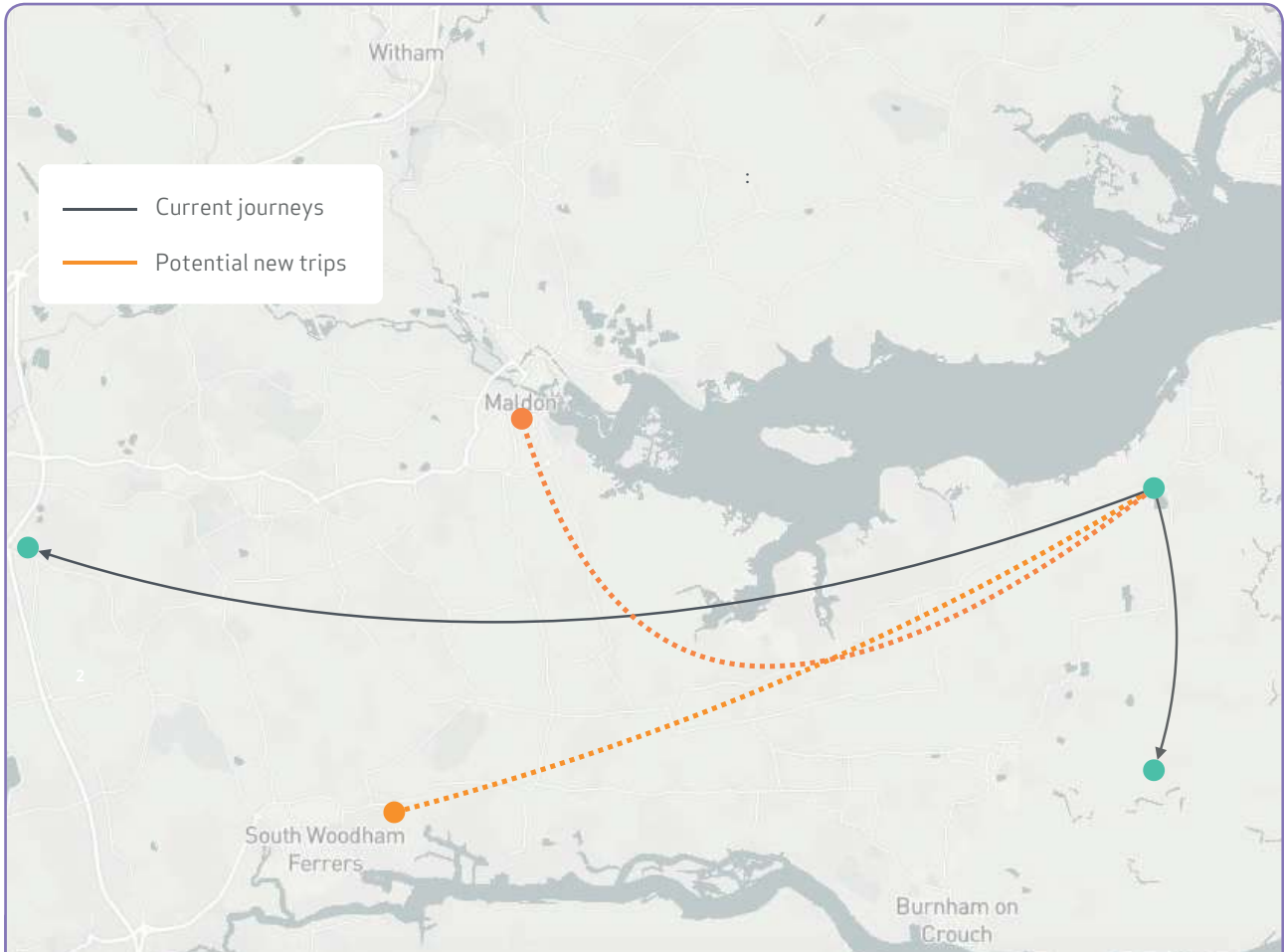
#### • Prefer online booking

*"I don't like talking to phone robots, booking online is better"*

#### • Partner with shift employers

*"I had to turn down an agency worker last week as I know they'll just leave when they see the taxi price"*  
– Casey's Manager

## CASEY'S JOURNEYS



### Currently:

Driven to and from work by her colleague's husband, from Asheldham to Tillingham. Lift from her mum to take her son to occasional medical appointments at regional hospital.

### Opportunities:

Attending college in South Woodham twice a week in evenings. Regular shopping trips and days out with her son in Maldon.

### Considerations:

For Casey the value comes from opening up very local journeys so that she can travel with minimal planning. This could lend itself to smaller local suppliers providing journeys.



## RETIREES

### BIO

Mrs Skinner, 70, lives alone in the Village of Clare in Suffolk. Since discovering her local demand responsive (DRT) service last year she now uses it once a week to go shopping locally with friends.

### CONTEXT

Over 65s account for 23% of the rural population in Suffolk. Many continue to drive a car up until a change in health for them or their family, leaves them reliant on scarce public transport options. Restricted mobility affects retirees' ability to socialise and access healthcare. This increases the likelihood of rural residents having to permanently leave their home to receive care.

### CURRENT CHALLENGES

The DRT service from Mrs Skinner's village doesn't go to her GP surgery so instead she has to pay over £40 for a dial-a-ride service to get there for her regular appointments.

Mrs Skinner knows there are other people in her village who don't travel at all since the regular bus service was withdrawn last year.

### OPPORTUNITIES & DEMAND

#### • Medical needs

*"I can't afford to keep paying for dial a ride so sometimes I have to choose not to go"*

The GP's isn't far but unreliable connections between public transport have let Mrs Skinner down before. Partnering with the GP surgery to understand patterns of demand may unlock potential.

#### • Visiting new places

*"I love it when we're able to go on trips to new places. You tire of the same garden centre!"*

**SUMMARY** – Mrs Skinner and her friends want to use shared transport for much more than is currently possible and it's in the wider community's interests to support their desire to stay active and social. Providing easier visibility and booking of new services for the family and carers of retirees is one way to tap into suppressed demand.

### DESIGN CONSIDERATIONS

#### • Assistance getting on and off

*"It takes me a little longer to get on or off than most. Graham, our driver always makes me feel comfortable though"*

#### • Value familiarity and reliability

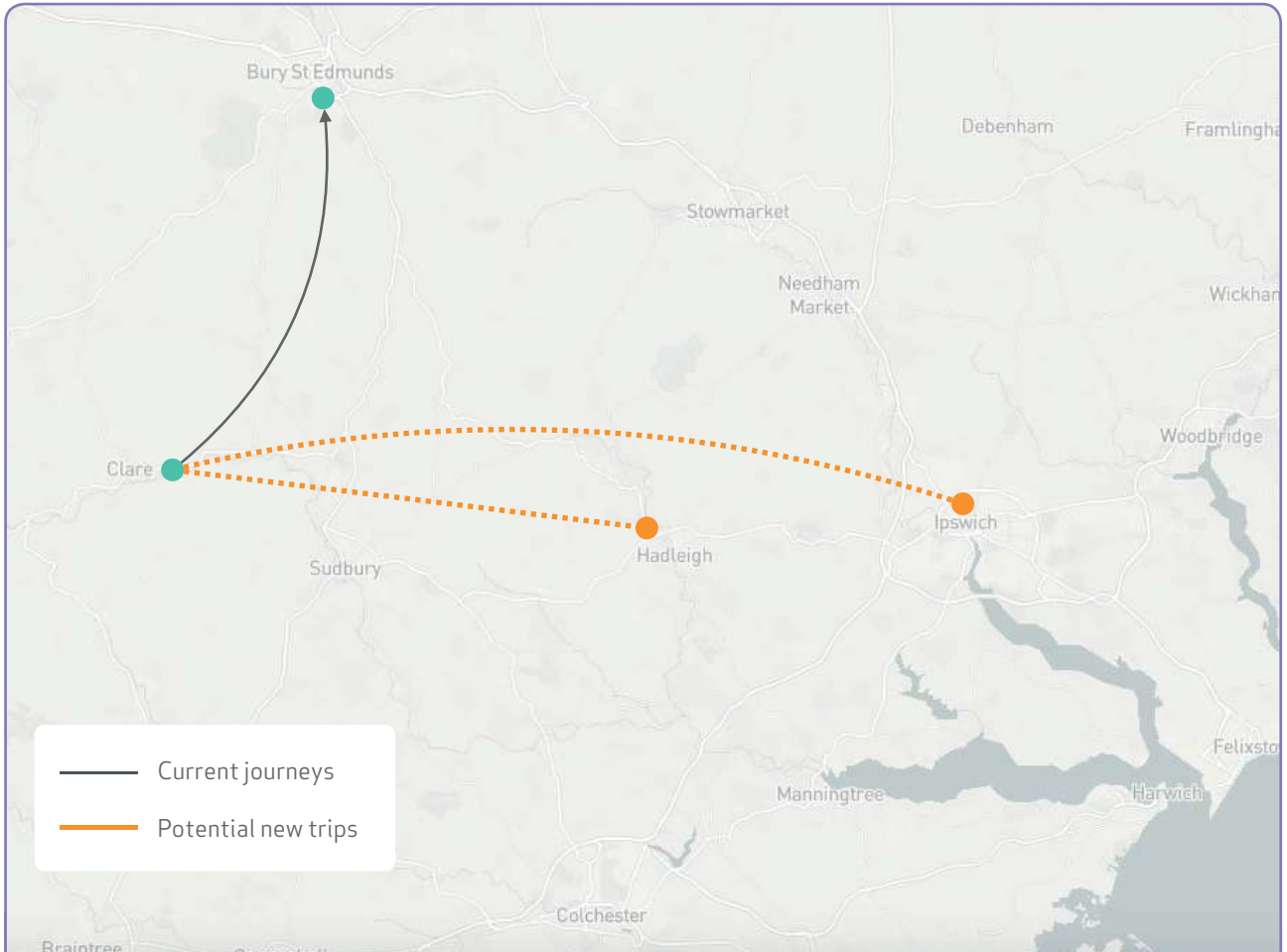
Like ability to block book

*"It's a real social thing. We have fun and you instantly know when someone's missing"*

#### • Affordability

*"I'd love to go on more trips but I won't pay taxi prices. I can't"*

## MRS SKINNER'S JOURNEYS



### Currently:

Weekly DRT services to Bury St Edmunds to do some shopping with friends.

### Opportunities:

Occasional trips into Ipswich with others for shopping and theatre. Easier access to local medical appointments.

### Considerations:

There is a potential role for third parties such as receptionists at GP surgeries to help view and arrange transport bookings on behalf of older rural residents to enable them to get to suitable appointments. Older residents are also active in organising trips on behalf of their group of friends so consideration should be given in how to make group bookings easy.

## PASSENGERS – CONSIDERATIONS TO DESIGN FOR

### RELIABILITY

Reliability was valued above all other factors with regard to transport by the overwhelming majority of rural residents we interviewed. A common criticism of existing services was not showing up when scheduled, leaving residents confused as to whether they'd missed it or a service was running late.

### CLEAR TIMETABLES AND REAL-TIME TRAVEL INFO

Linked to reliability, a common problem in rural areas is that there is little real time information available on public transport. This is combined with the fact that several people we interviewed found physical bus timetables confusing and off-putting. There is plenty of scope to improve the customer experience of rural public transport by creating clearer, digitally accessible views of existing travel options.

### AFFORDABILITY

Pricing of rural services is a case of fine margins owing to the low passenger volumes and long average journey distances. With cuts to public funding more operations will need to be self funding through fare paying passengers.

For new public services to operate the feedback from rural residents was that they must cost significantly less than a taxi fare to warrant regular use. Therefore, innovators could look to exploit newer approaches aggregating customers onto a shared journey and driving down cost per passenger e.g. crowdsourcing routes.

### "I WANT TO GO" MOMENTS

Popularised by Google, this expression refers to people speculatively searching nearby for a type of experience or destination. Through partnering with local destinations transport services have the opportunity to mutually benefit from promoting one another's service and finding new customers as an increasing number of residents search online.

### COMMUNITY TOUCH POINTS

Digital touch points for local communities are arguably under- utilised at present by rural transport planners and suppliers. Facebook groups and local forum sites can provide a cost effective way to engage with large groups of potential passengers to both better understand demand and promote services.

## PASSENGERS – SUMMARY



Lack of affordable transport options threatens to limit opportunities for residents who already have reduced travel independence.



Existing rural services don't take full advantage of opportunities to engage digitally with potential passengers.



Passengers' thresholds for what constitutes a better service experience are relatively low owing to lack of viable alternatives.



Innovators should work closely with local destinations to spot opportunities to grow new services that appeal to residents.

# SUPPLIERS

## TRANSPORT OPERATORS

### SUPPLIERS – AN OVERVIEW

Providing transport to rural communities can be a high risk proposition for transport suppliers. Low population density and long distances between destinations make it an ongoing challenge to attract sufficient passengers to operate a viable service.

Facing such pressures it's unsurprising that the number of rural transport services and suppliers has declined in recent years in line with falling subsidies from local authorities.

#### **SPECIALISING**

Choosing to specialise in providing a service to a particular rural passenger group is one approach by which a number of suppliers have been able to sustain a service and serve a community in the face of these obstacles. These specialisms can be anything from providing home to school transport funded by the local authority, through to taxi firms dedicated to operating services to and from local airports.

#### **SPARE CAPACITY**

What these suppliers all tend to have in common, irrespective of specialism, is spare capacity. This spare capacity comes in the form of empty seats on journeys, downtime between journeys, or “dead mileage” – the time

spent driving to or from a job without passengers. Spare capacity is a result both of the rural challenges outlined above and that specialisation has to a certain extent artificially split different groups of passengers onto different modes of transport.

However, within this spare capacity lies an opportunity for innovation, as to how to better leverage these community assets.

#### **EXISTING SUPPLY READINESS**

Digital technology such as booking platforms, offers the potential for suppliers to make their services more visible and accessible to a wider proportion of the rural population. Yet platforms come with the challenge of persuading transitional competitors that they are better off coming together to promote their services, in order to access more passenger demand.

Working with existing local suppliers can also bring the benefits of vast local knowledge as well as utilising existing fleet, as opposed to making costly upfront investments in new vehicles.

In this section of the guide we use mini case studies to shine a light on real examples of the different types of rural transport suppliers. We look at their capacity and capability to provide 21st century services and share practical examples for innovators of how their spare capacity and skills might be unlocked and utilised.



## QUESTIONS COVERED

### **? What modes of transport offer the greatest potential for growth in rural settings?**

We provide a brief introduction to demand responsive transport (DRT). This is an existing type of on demand transport service, which whilst already used in rural UK communities has much potential for new applications.

### **? What are the typical types of existing suppliers operating in rural areas and what services do they provide?**

We provide four mini supplier case studies. Each aims to provide a compact summary of the supplier's current operations and insights into their challenges and motivations.

We also provide a framework and diagram to help innovators new to the supply sector to categorise some of the main types of rural supply.

### **? What opportunities and challenges do they see to operate more innovatively?**

We provide quotes and practical real life examples drawn from interviews to highlight suppliers attitudes towards new types of supply. These can help inform potential use cases when considering how to engage and work with suppliers.

## **METHODOLOGY**

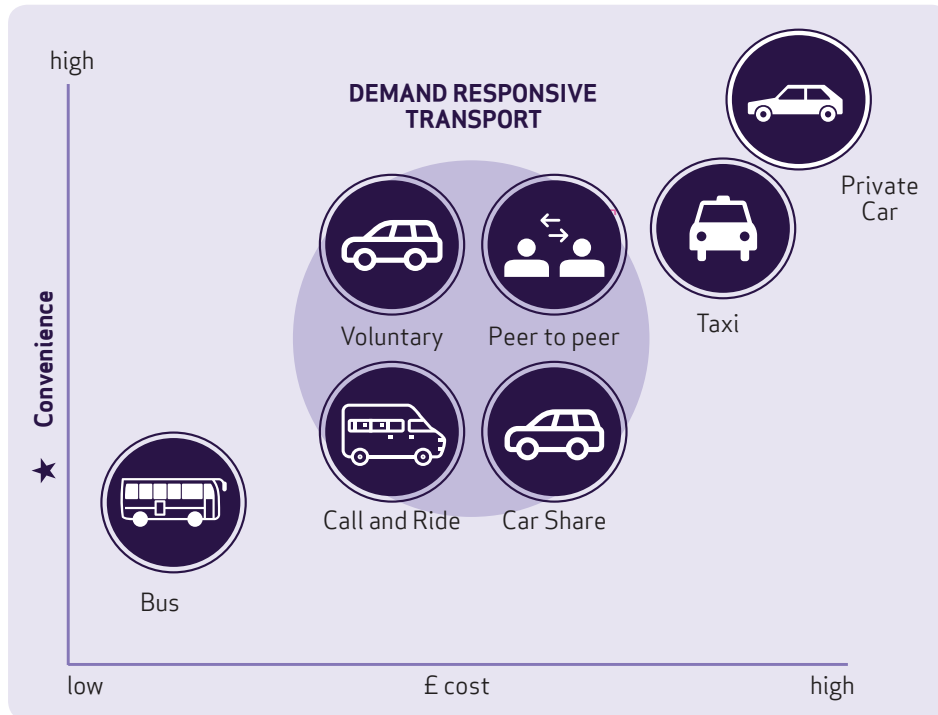
FutureGov's research team have been afforded unique access to suppliers in two large rural counties over the course of 18 months as part of a joint partnership project with Essex and Suffolk County Councils.

Information in this section is drawn primarily from both interviews and feedback from user testing digital prototypes and concepts with rural transport suppliers.

The case studies are of real transport suppliers who were kind enough to participate in our research.

We've provided a mixture of suppliers from both Essex and Suffolk. This reflects what we feel are case studies representative of the supply market in a typical large rural British county.

## TRANSPORT METHODS – COST VS CONVENIENCE TRADE OFF



The types of road transport models operating in rural areas can broadly be broken down into four distinct categories: bus, demand responsive transport, taxi and private car.

From a passenger's perspective choosing a mode of transport represents a trade off between financial cost and convenience.

Transport innovators should be seeking to either increase convenience or decrease cost to customer, or ideally do both in order to help create a desirable proposition for passengers.

### NOTE

Within this guide, our focus will be on opportunities within Demand Responsive Transport options. DRT is well suited to rural settings, as we'll explain. The challenge lies in identifying opportunities to deliver DRT services to a wider user base at a lower cost to users.



## TRANSPORT METHODS – DEMAND RESPONSIVE TRANSPORT (DRT)

### WHAT IS DRT?

Demand Responsive Transport (DRT) is one existing type of transport service that if optimised is well suited to meet the challenges of rural transport.

DRT refers to ride-sharing services which have flexible routing and are booked in advance by passengers. They attempt to combine the door-to-door service of a taxi with the mass transit affordability of a bus.

Minibuses are the main vehicle used as they are well suited to the lower populations and country roads. DRT services are typically run by community, voluntary and non-profit organisations, although some commercial providers have also begun delivering services.

With real-time on demand services hard to achieve in rural areas owing to population density, 'near time' booking solutions like DRT offer a more practical alternative.

### HOW IT WORKS

- A DRT supplier agrees an area of operation with the local councils and the traffic commissioner.
- Residents in that area book via phone call to the supplier, who then builds a route based on requests.

- Service runs to flexible pickup windows, e.g. we'll be there 10-20 mins either side of a time, to ensure routes can be achieved.
- Typically offer pickup and drop-off door to door which helps overcome the "first and last mile" problem for users, e.g. getting shopping home from bus stop, mobility issues etc.

### CURRENT CHALLENGES OF DRT MODELS

DRT services struggle to attract users outside of the core group of over 65 year old passengers.

This leads to spare seats and higher costs per passenger. Addressing these challenges is key:

**Visibility** – Hard for the community to know that journeys are taking place as limited advertising.

**Perception** – Viewed as a service for the elderly and not considered as an option by other groups.

**Regulations** – Have to register areas of operation in advance and can only operate in certain restricted geographies.

## TRANSPORT SUPPLIERS – SPARE CAPACITY

There is plenty of scope for innovators to apply new approaches and technologies to improve the efficiency of how the existing rural transport supply network operates. Doing so could help unlock the potential to meet the suppressed demand highlighted in the previous section.

One of the biggest opportunities for efficiency improvements lies in the spare capacity within the current system, which can be broken down into three types.



### SPARE SEATS

Seeing public transport pass by with more empty seats than passengers is an all too common sight in rural areas.

Low population density will always make it challenging to operate services at full capacity but there is still plenty of room for improvement by both suppliers and commissioners.

More can be done to understand passenger demand to attract new passengers to fill these spare seats. Also, the number of separate suppliers transporting different passenger groups along similar routes at similar times should be reduced.



### DEAD MILEAGE

This refers to when transport is operating without carrying any fare paying passengers, typically when driving from a home base to a job and *visa versa*.

The cost of dead mileage can quickly add up in rural settings owing to long journey distances.

A relative lack of supply options in rural areas has the effect of increasing dead mileage because service commissioners are forced to procure services based further away to deliver contracts.

This dead mileage represents an opportunity for suppliers to fill it with fare paying passengers, potentially at discounted rates.



### DOWNTIME

This covers any time when a vehicle could be in use but isn't.

Whilst it's not practical to run vehicles 24/7, there are plenty of opportunities in rural areas where static vehicles could be being used to meet passenger demand.

One example is where a vehicle and a driver are idling between jobs. This offers the possibility to do other short local journeys before the next booked service.

Another example is where a vehicle is regularly unused at certain times of day. A third party could use it during these hours to deliver extra services.



## TRANSPORT SUPPLIERS – OPPORTUNITIES FOR INNOVATION

To date there's been limited application in rural settings of the new approaches to technology, service models and design thinking which are transforming urban transport.

Highlighted here are three service goals that these same approaches could help realise in a rural context in order to bring demand and supply together. The challenge for urban innovators is shaping, adapting and combining these new approaches to reflect the realities of rural environments.



### INCREASE VISIBILITY

One barrier to efficient rural transport is the difficulty all parties have in seeing the services on offer.

DRT services have low exposure outside of their core passenger groups and typically have limited capacity and capability for marketing. Passengers, planners and other suppliers can find it difficult to know what journeys are being run and how these join up to destinations.

Making these services easy to view via smartphone would be a positive first step to attracting new passengers to consider existing services.



### EASIER BOOKING

For demand responsive services to attract new passenger groups they must become easier to access.

Currently the vast majority of DRT bookings have to be made via phone call, with each supplier having a separate phone number, pricing structure and notice periods for bookings.

Enabling passengers to make direct bookings online and standardising a common booking process across different suppliers would help lower the barrier to certain passenger groups such as young people using DRT.



### SMARTER ROUTING

Offering services at times and places passengers want to travel is at the heart of creating an efficient supply network.

This requires more accurate information on passenger demand. Suppliers also need the capability to interpret this information and react accordingly to design the best routes to maximise uptake.

Enabling passengers to easily signal their travel needs to the market via smartphone should be combined with access to data driven insights about passenger demand and software which calculates optimum routes.

## SUPPLIER PROFILES

In this section we look more closely at four existing rural transport suppliers in Essex and Suffolk to help illustrate the types of spare capacity they have and their readiness to offer new services.

We have chosen to profile services which already use multiple vehicles and operate some form of demand responsive service. Suppliers just like these exist in rural communities throughout the UK and arguably offer the greatest potential to deliver new services as they have both the requisite capacity and service experience to reduce the risks associated with trialling new flexible services.



### ARROW TAXI

A demand responsive transport supplier and taxi firm operating in rural Essex.



### VERTAS

A private fleet of bookable vehicles used by council staff, plus minibuses providing services for local schools.



### 24/7

A taxi hire service and school transport provider based at Stansted Airport.



### COMMUNITY LINK

A fleet of vehicles owned by Essex County Council that are used for specialist transport.

## COUNCIL CAR POOL AND SEN SERVICES – VERTAS (vertas.co.uk)

### OVERVIEW

- Vertas is wholly owned by Suffolk Council and operates commissioned services.
- 100 cars and 100 vans across eight bases, for council staff to use.
- 17 Special Educational Needs (SEN) equipped minibuses.
- Bespoke online booking system, staff key cards to open vehicles.

### CONTEXT

Councils typically commission external suppliers to provide specific statutory services e.g. SEN Transport. This can create downtime for suppliers when not operating commissioned services.

### CURRENT SERVICE

- 17 SEN vehicles doing school runs, covering 1800 miles during morning and afternoon trips.
- School runs booked termly by parents.
- Council staff book cars and vans at short notice, via online booking system, using staff cards to open doors.

### SPARE CAPACITY

SEN fleet are in use for around 32.5 hours a week each, **leaving around 45 hours available for additional trips during school hours and in the evening.**

If we extended the drivable hours from 5am to 9pm, that could break down into two 8-hour shifts.

*“That’s a good offer to our drivers” – Nigel, Fleet Manager*

Patterns of use by council staff create foreseeable spare capacity

*“Across the council, Mondays and Fridays tend to be low on car bookings”*

**SUMMARY** – Nigel and Vertas have the incentive, acumen and opportunity to provide new, flexible services to the community. However, they currently have limited access to accurate data on wider passenger demand, nor the capacity or tools to go out and source this data.

### CONSIDERATIONS

#### • Know own capacity and tech

Zipcar technology is used in all vehicles, and analytics show Vertas opportunities for additional trips.

*“On my database, I know which vehicle covers which area and where they are at any time”*

#### • Drivers already vetted

*“Drivers are DBS checked and trained in working with children”*

#### • New licences may be required

Vertas doesn’t presently operate under flexible route permits. *“The minibuses are run under Private Hire licenses, but in due course we’ll move to Full Operators license, standard PSV”*

## COUNCIL CAR POOL AND SEN SERVICES



### Currently:

Routes taken in the morning drive from the Vehicle depot, around the children's houses, to the school and back to the depot for cleaning. Then in the afternoon from the depot, to the school, and around the children's houses, and back to the depot.

### Opportunities:

For drivers to take on additional jobs during the middle of the day, and into the evening. These could extend across the county, and could link up with last drop off locations of children. Driver would earn additional fares, more people could be served in the time between school runs.

### Considerations:

SEN vehicles well suited to transporting the elderly due to accessibility features. Vehicles with tracking opens up possibility for more real-time booking from GPs, care facilities and hospitals with short notice transport needs. Make it easy for these partners to book pooled rides to save money.

## AIRPORT TAXI FIRM – 24/7 (24x7stansted.com)

### OVERVIEW

- 24/7 are a taxi hire service based at Stansted Airport.
- Also operate home to school services for Essex council.
- Use over 1000 vehicles.
- Manager Andy has been in the transport business for 33 years and started with one vehicle.

### CONTEXT

Council funding offers a regular income stream for taxi services, where increasing the amount of pre-booked work is a goal. The local knowledge that comes with a large fleet offers the potential to provide a better informed ride sharing service than pure public provision.

### CURRENT SERVICE

- Plan optimal routes to pick up students efficiently.
- Have over 350 minibuses with eight seats of which 80 are wheelchair accessible.
- 800 vehicles do school runs throughout Essex and only work 4-5 hours/day.
- Taxis supply local community as well as the airport crowd.

### SPARE CAPACITY

Making the most out of latent supply. Home-to-school vehicles are mostly used from 8 to 10am and from 2 to 4pm and remain unused the rest of the time. On their way back to base, twice a day, the vehicles are riding with no passengers.

Working with untapped demand around shift work  
*“500 people work at Stansted airport and live around Essex some need to get to work at 4am and have no public transport options then”*

**SUMMARY** – The varied passenger size of Andy’s vehicle fleet lends itself well to rural settings, where ride-shares may be between small groups. He is well aware of 24/7s spare capacity and would love to find innovative ways to connect to new passengers to fill it.

### READINESS FOR CHANGE

#### • Harnessing technology

Installing PDAs for sat nav and receiving bookings. 200 of the vehicles now have live tracking.

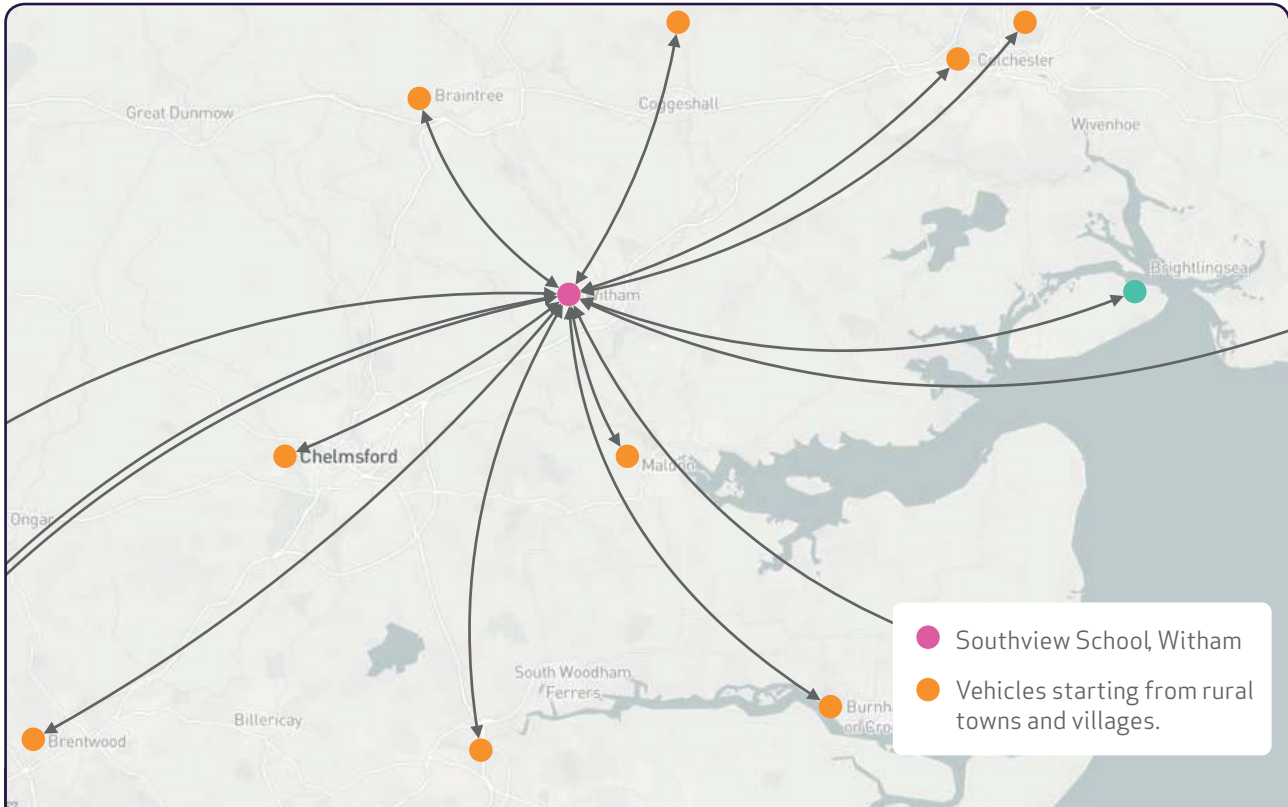
#### • Spotting opportunities to strengthen his business

*“A new service will help if you can get people using the return leg of transport – financially it’s great, but environmentally it’s even more important, so I’d back it with whatever I could”*

#### • Already handle online bookings

*“Developed an app as we saw that’s the way things were going”*

## AIRPORT TAXI FIRM



### Currently:

27 wheelchair accessible minibuses based all across the county take children to school in the morning and pick them up in the afternoon. They come back to their bases empty twice a day and remain unused for the remaining time.

### Opportunities:

For each empty eight-passenger vehicle coming back from Witham to be advertised to the general public and accept bookings.

## DEMAND RESPONSIVE TRANSPORT – ARROW TAXIS (arrowtaxi.co.uk)

### OVERVIEW

- Andy manages Arrow Taxis, based in Maldon in rural Essex.
- Arrow operate private taxis as well as delivering DRT services across Essex.
- Fleet of wheelchair accessible vehicles, taxis and 16 seat minibuses also run home to school transport and day trips.

### CONTEXT

Introducing DRT services is one way rural councils try to mitigate the impact of cuts to traditional bus routes. Arrow are an example of how these services have the potential to actually improve customer uptake when done right.

### CURRENT SERVICE

- Arrow worked closely with the council to create economical DRT services to replace failing traditional bus routes.
- Increased passenger numbers by over 130% in six months after replacing the bus.
- Customers call in to Arrow's control room to book on DRT routes up to two hours in advance.

### SPARE CAPACITY

Despite increased passenger numbers there are still spare seats on journeys

*"We've had interest from local schools about partnering to do more than just home to schools transport but nothing's yet come of it"*

Taxis are visiting hospitals with potential to carry other passengers

*"The hospital told us about one poor chap who had a nine hour wait for hospital transport. We worked out we'd been in and out of that hospital with spare seats six times during the same period"*

**SUMMARY** – Arrow have shown that DRT can be a success in rural areas. As they look to expand their passenger base they see the challenge for new users and local services, such as healthcare, of knowing what transport is on offer and how to book it. Andy has good working relationships with most other local suppliers and can see the potential in a common approach to booking and supplying journeys.

### READINESS FOR CHANGE

#### • Already licensed for flexible work

*"DRT is ideal for rural settings as it can just divert and flex to changes"*

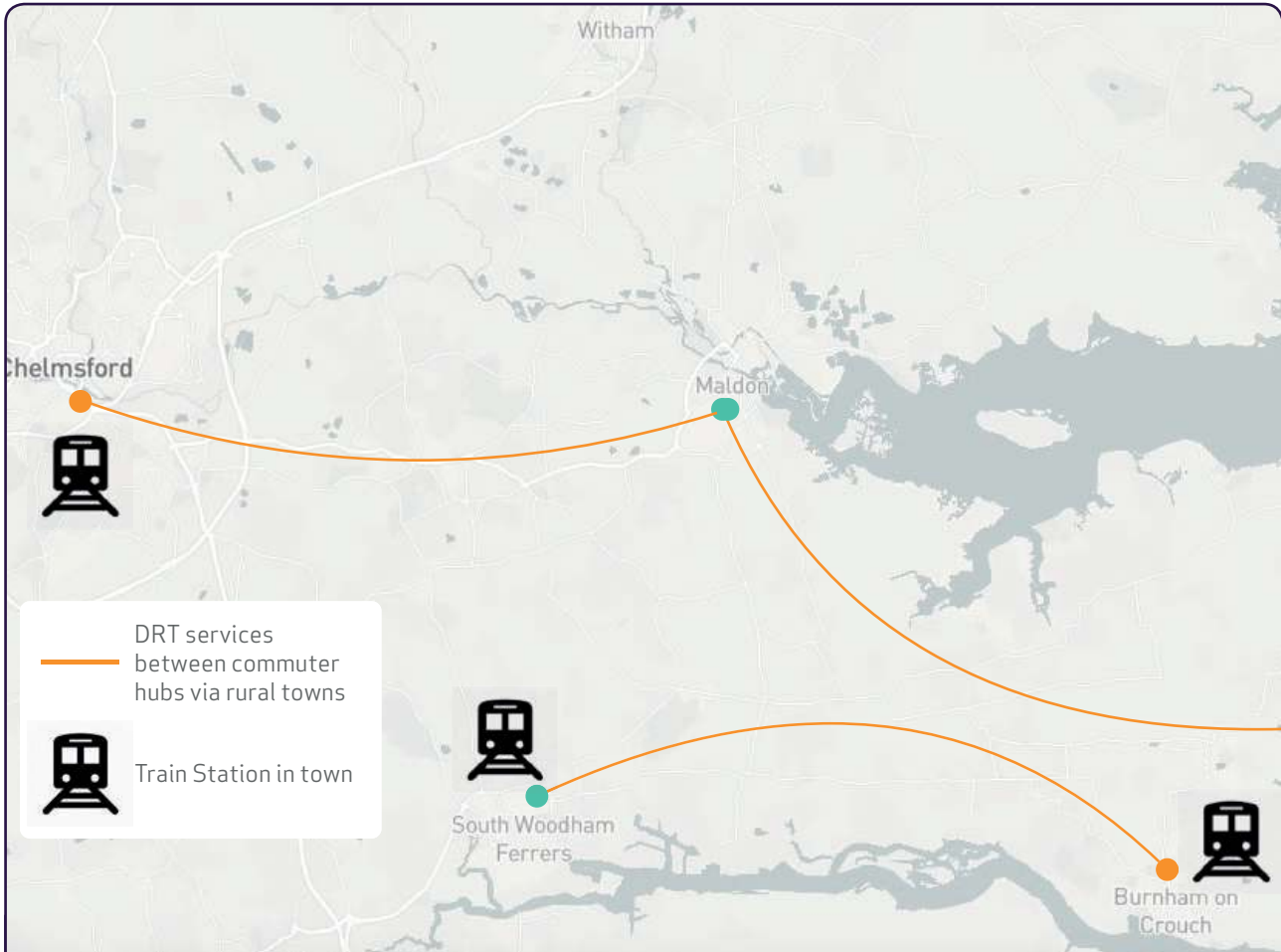
#### • Keen to encourage more young people to ride

*"Leaflets work well for our older crowd but we know a different approach is needed"*

#### • Challenge of integrating online bookings with existing routing system

*"Getting a single system is essential to avoid duplication"*

## DEMAND RESPONSIVE TRANSPORT



### Currently:

Run multiple demand responsive services on routes throughout rural Essex using mini-buses and a call booking centre.

### Opportunities:

Providing digital booking for demand responsive services could enable Arrow to market their existing services to new customer groups.

Attracting new types of fare paying passengers also opens up opportunities to extend existing services to connect to successful local transport hubs, such as commuter runs to train stations.



## COUNCIL TRANSPORT FOR ADULT SOCIAL CARE – COMMUNITY LINK

([essexhighways.org](http://essexhighways.org))

### OVERVIEW

- Paul manages Community Link, Essex Council's in-house fleet.
- 72 vehicles leased. Over 90% of doing adult social care work.
- Also operate hospital shuttle, SEN and mainstream schools service plus four shopping trip buses open to the public.
- Four coordinators managing 120 drivers/passenger assistants.

### CONTEXT

Some rural councils run an in-house fleet as a way of ensuring statutory services are delivered and to retain control over expenditure. A challenge is how to optimise downtime.

### CURRENT SERVICE

- Essex County Council's in-house minibuses and drivers are used to provide specialist transport.
- Co-ordinate incoming requests from social care team to provide runs to local day centres and activities for adults who meet funding requirements.
- Each driver is contracted for 20-25 hours a week.

### SPARE CAPACITY

Most of the 72 vehicles are 16-seater accessible minibuses that are currently unused in the middle of the day and weekends.

*"There's got to be an easier way for us to put our name out there and for people to book"*

Seeking to make the most of downtime.

*"I'd like to increase our work [more broadly than adult social care]. We've got the down time in the middle of the day, it's attractive to improve utilisation"*

**SUMMARY** – Paul's service has spare capacity but he sees greater challenges than commercial operators in shifting to new operating models. One possibility is to allow other local entrepreneurs to use the spare minibuses to deliver new services without them having the large capital outlay on vehicles.

### READINESS FOR CHANGE

#### • Systems update

*"We'll need a routing system to manage bookings and see availability, at the moment we use Google Maps"*

#### • Thinking about changes needed to operate differently

*"If we operate as a DRT service, how do we manage the drivers and how do they get paid?"*

#### • Diversifying the journeys without compromising the quality of service

*"What we always have to consider is we can't jeopardise being on time to pick up the people from the day centres"*

## COUNCIL TRANSPORT FOR ADULT SOCIAL CARE



### Currently:

72 vehicles driving people throughout the week from their home to day centres in the morning and returning in the afternoon.

### Opportunities:

For these vehicles to be used for onward, paid public journeys during the rest of the day.

## SUPPLIERS – CONSIDERATIONS TO DESIGN FOR

### COMPETITION

One of the barriers to passengers making journeys is that provider service offerings aren't necessarily designed to compliment one another and each has its own process for timetabling and booking. This creates a confusing and off-putting experience for users/passengers. One potential goal for innovators lies in persuading suppliers that they are better off working together.

### MARKETING AND PROMOTION

This is one area where rural providers traditionally have little capacity or budget. This is especially true when it comes to reaching new passenger groups and younger audiences. Innovators with a sound understanding of new passengers' needs and the best mediums by which to reach them have the potential to deliver big impacts for relatively small investment e.g. using social media and online search advertising.

### LEGACY SYSTEMS

Rural transport is no different to other sectors in that suppliers already have technology and systems that support their current ways of working. These include booking, routing, ticketing and dispatch systems.

The sunk costs and familiarity can create barriers to existing suppliers working with new concepts. Innovators should be mindful of how any new technology either supersedes or interfaces with legacy systems.

### JOINED UP JOURNEYS

Passengers prefer end-to-end journeys to swapping transport. However, it may be in the best commercial interests of both suppliers and the community for any new services to feed into existing successful transport hubs and routes. In many cases, providing a reliable link into these services would represent an improvement over existing options. It's useful for innovators to consider how new services can multiply the impact of successful existing offers and the logistics of reliably connecting.

### LICENSING CONSIDERATIONS

This is covered in more detail in the regulations section but it's important to acknowledge that suppliers will likely need support in moving to different business models to deliver new services. This includes understanding the opportunities and implications as well as creating a process to make this as painless as possible from their end.

## SUPPLIERS – SUMMARY



Reduction in local authority subsidies for rural transport has made it difficult for suppliers to sustain services in current market conditions.



Plenty of spare capacity in existing supply network which could be repurposed to help meet passenger demand.



Working with existing suppliers to deliver new services reduces barriers to entering the market through utilising local knowledge, existing licences and vehicles.



Local suppliers have indicated they are capable of delivering new digitally enabled services but they require access to improved insights on residents' travel needs.

# LOCAL AUTHORITIES

## TRANSPORT PLANNERS

### LOCAL AUTHORITIES – AN OVERVIEW

If you were taking a bus journey in any rural community in the UK you could be forgiven for thinking of mass transport as an entirely commercially driven operation. A colourful mixture of buses operated by large national firms and smaller independent operators provide the majority of services.

#### ESSENTIAL SUPPORT

Yet public bodies still have an important role to play in regional transport networks. Local Authorities must decide how best to allocate annual budgets of tens of millions of pounds across the transport network in order to provide a mixture of legally required (statutory) and subsidised services to support residents in getting around the region. This funding helps provide mobility in areas where commercial solutions alone wouldn't meet the needs of the community.

Council teams play a vital brokerage role in the region; building relationships and working with local stakeholders and transport operators. The local authority must identify and stimulate both demand and supply, whilst encouraging the two sides of the market to come together to ensure the public have access to an effective transport network.

#### BIG CHALLENGES

Far less surprising is the reality that council teams are facing unprecedented challenges to do more with less. There is increased demand for statutory services despite significantly reduced annual funding. Council teams are being forced to make tough and unpopular decisions about cutting vital subsidies that have traditionally been relied upon to operate many rural bus services.

However, with these challenges come big opportunities for partnerships and innovation with local authorities. The on-going cuts have made the need for council teams to find new solutions to old challenges even more pressing. This urgency, coupled with traditional approaches to service planning and provision being ripe for change, provide the potential to deliver big impacts in relatively short spaces of time.

#### FORCE MULTIPLIERS

Local authorities have the potential to benefit directly from innovation but also to maximise the impact of new services across a region through their commissioning role and their local knowledge.

In this section we use case studies from Essex and Suffolk council to illustrate national trends and opportunities.



## QUESTIONS COVERED

### ? What is the scope and scale of local authorities role in rural transport?

We introduce some of the key functions of local authorities with regard to rural transport. We also use figures from Essex and Suffolk to help illustrate the potential for impact of innovation on costs.

### ? What are local authorities main challenges and needs?

We identify three main challenges for councils as well as the corresponding number of potential opportunity areas for innovation to have a positive impact through working with local authorities.

### ? What is the capability and appetite of local authorities to support innovation in transportation?

We look at examples from Essex and Suffolk, to highlight how councils are more receptive than ever before to new ideas and how authorities might begin to change to become enablers more so than planners.

NB the term 'Local Authority' in this section is used to refer to the County Council or equivalent body. Where functions are delivered at other levels of local authority this has been indicated.

## METHODOLOGY

FutureGov's research team have been afforded unique access to passenger transport teams for two large rural counties over the course of 18 months as part of their joint partnership project with Essex and Suffolk County Councils.

Information captured in this guide is taken from a composite of different methods, including:

- Interviews and conversations with staff from council passenger transport teams and senior departmental managers at Essex and Suffolk
- Analysis of data sets from Essex and Suffolk councils
- Conversations with Local Authority transport planning staff from authorities throughout the UK at national transport events including the Transport Data Initiative (TDI) and the DfT's Total Transport Partners forum.

## LOCAL AUTHORITIES - ROLE

**We're responsible for creating a way for the public to get around and dealing with everything that comes with that.**

Passenger Transport Manager,  
Suffolk County Council

Local authorities play a vital role in ensuring mobility services exist for their rural communities.

Local authorities typically only directly support a relatively small proportion of the regional transport network through funding (usually less than 15% of the network). This relatively small direct financial influence means authorities must use their ability to build and maintain strong relationships with suppliers to exert indirect influence on the network in order to ensure rural communities receive the services they need.

With only a handful of rural authorities delivering their own transport services, the onus is on local authorities to

make smart use of the funding and commissioning powers they do have to shape the network. Councils are quite constrained with how they can spend the statutory funds they have, yet it still involves lots of careful planning and consideration to maximise impact and achieve value for money for taxpayers.

At the time of writing there are 418 local authorities in the UK, with nearly 50% of these having significant rural areas. Each of these authorities share most of the same roles and responsibilities, however, there is surprisingly little in the way of sharing resources and working collaboratively on common challenges.



THE COUNCIL



PLAN



COMMISSION



FUND



DELIVER



MONITOR



LICENSE

## LOCAL AUTHORITIES - SCALE

People are usually surprised when they find out the scale of funding we have to allocate.








Passenger Transport Manager,  
Essex County Council

Looking at the amount of journeys and expenditure by local authorities helps to highlight to innovators the large scope for the potential impact of, and demand for, new solutions.

We've summarised some of the important annual numbers for Essex and Suffolk, two counties with significant rurality, to help illustrate the large figures involved in delivering rural transport.

Local authorities are desperate to find new approaches which can enable to deliver statutory services more efficiently and reduce subsidy expenditure, whilst at the same time improving the overall customer experience.

	ESSEX	SUFFOLK
 Population (CENSUS 2011)	1.4 M	740 K
 Number of journeys on public transport	41 M 15% supported by council	16 M 10% supported by council
 Bus subsidy expenditure	£9.7 M	£2 M
 Spend on concessionary fares	£18 M	£7.7 M
 Home to school transport expenditure	£25 M	£21 M

All figures are annual numbers for the financial year 2016/17 unless otherwise stated.

## LOCAL AUTHORITIES - CHALLENGES



### FINANCIAL PRESSURES

Councils are being required to do more with less. Transport funding is being reduced whilst demand for statutory services such as special educational needs transport is increasing. An ageing population is also placing increasing pressure on public services.

The large scale of the budget reductions means that transport teams are cutting non-statutory funding where possible, starting with discretionary subsidies for traditional rural bus routes.

***“Our transport budget since 2011 has reduced by 50%, meaning that our routes are now focused on areas of greatest population.”***

Passenger Transport Manager,  
Suffolk County Council.



### LACK OF SUPPLY

With few rural councils operating their own transport services, commissioning of suppliers to deliver services is a core function of council teams.

However, councils are finding it increasingly difficult to find local suppliers who can meet their needs at an affordable price. This is partly as a direct result of challenging market conditions forcing transport suppliers to close.

The lack of competition causes higher contract prices, which in turn places further pressure on transport budgets.

***“Getting interest from new suppliers in rural areas is growing harder each time we go out to tender.”***

Passenger Transport Manager,  
Essex County Council.



### LIMITED CAPACITY

Budget cuts have also affected the capacity of local Transport teams with staffing numbers reducing in most authorities.

After managing commissioning, engaging suppliers and trying to maintain existing services, these teams are left with little time and capacity with which to work on innovative approaches to tackling the challenges of rural transport.

The teams also lack access to the latest data sets and modelling technology to help them plan better networks.

***“The savings targets are a real challenge and they test the team’s ability to deliver results.”***

Passenger Transport Manager,  
Suffolk County Council.



## LOCAL AUTHORITIES - OPPORTUNITIES



### USING NEW DATA SOURCES

Local authorities have limited access to the latest data sets and mobility modelling tools.

Rural networks are still primarily planned using traditional methods, e.g. analysing passenger numbers on existing routes and engaging communities via surveys. This can lead to a focus on maintaining the status quo rather than new ideas.

The potential exists for third party specialists to partner with councils to help them access and interpret new data sources and modelling techniques to plan a more efficient network. Combining this with improved passenger engagement through social media and other digital tools could help local authorities identify services which can help to meet suppressed passenger demand.

***“Our transport budget since 2011 has reduced by 50%, meaning that our routes are now focused on areas of greatest population.”***

Passenger Transport Manager, SCC.



### IMPROVED BROKERAGE

Local authorities have a position of trust within their community through their service delivery role. This position could be leveraged to enable councils to play a more active role in bringing together supply and demand.

Councils have long standing relationships with residents and destinations; employers, educators, care facilities etc. However, most councils haven't traditionally had the skills, tools or capacity to play the role of a broker between these parties and suppliers.

Digital platforms have now made it easier to surface and share information within a market. Involving councils in a platform could increase the likelihood of the local community engaging with it due to the existing trust.

***“Our role has to change if we're going to make big savings.”***

Passenger Transport Manager, SCC.



### BUILDING PARTNERSHIPS

Partnership relationships with other local authorities and third parties offer the potential to be force multipliers to the social impact councils are trying to deliver.

Joining forces with other local authorities who share the same challenges could improve their collective buying power, enabling learning from each other's experiences and helping to build shared capacity.

Currently rural local authorities largely tackle their challenges in isolation. There is scope for innovators to develop partnerships around specific initiatives, e.g. making existing passenger data open, so that others can use it to help develop new insights and services.

***“There aren't all that many forums where we get together to share our challenges.”***

Passenger Transport Manager, ECC.

## LOCAL AUTHORITIES - BECOMING ENABLERS

We're moving to the council being an enabler, rather than a funder.



Passenger Transport Manager,  
Suffolk County Council

There's a growing recognition amongst rural local authorities that new approaches are needed in order to move with the times and ensure effective mobility options exist for their communities. In particular, more local authorities are looking to reshape their role away from being a top-down commissioner and planner of services towards becoming an enabler; stimulating and supporting the local transport suppliers to use their knowledge and experience to help develop new services.

Rural authorities are looking at how they can use digital technology and community engagement to make better use of their assets, which include:

- Recurring engagement with residents
- Licensing powers for suppliers
- Data sets tracking a wide range of useful local indicators

The good news for innovators is that local authorities are increasingly open to new ideas and partnerships to support this transition to an enabling role.

With a new role comes the need for new skills and technologies, delivered by new partners.

Councils are particularly interested in solutions which will help enable more cost effective and sustainable delivery of statutory services such as home to school transport. Making savings and improvements in areas of statutory duty will provide councils with capacity to support further service innovation and improvement of the customer experience in mass transit services.



**THE COUNCIL  
AS AN  
ENABLER**



**OPEN  
DATA**



**BROKERAGE  
PLATFORMS**



**ONLINE  
ENGAGEMENT**



**DATA &  
TREND  
ANALYSIS**



**TARGETED POLICY  
INTERVENTIONS**



**USING  
REAL-TIME  
FEEDBACK**

## LOCAL AUTHORITIES - CONSIDERATIONS

### WILLING PARTNERS

Rural council's are demonstrating their desire to find new ways of tackling their challenges. When looking for willing partners, good starting points for innovators include reviewing the list of councils which engaged with the Department for Transport's Total Transport funding initiative: [gov.uk/government/news/76-million-for-local-transport-in-rural-and-isolated-areas](https://www.gov.uk/government/news/76-million-for-local-transport-in-rural-and-isolated-areas)

Another useful starting point is looking at the members and presenters at the Transport Data Initiative (TDI): [transportdatainitiative.com](https://transportdatainitiative.com)

### DEMONSTRATE SAVINGS

For innovators looking to engage local authorities it's vital that they can show that they are considering how their ideas may help create a rural transport network which is less reliant on council funding. This includes thinking of ways to deliver efficiencies, increase the numbers of fare paying passengers, and increased availability of supply.

### AWARENESS OF DIFFERENT LEVELS OF GOVERNMENT

It's helpful for innovators engaging in rural transport to have a basic understanding of which functions of the local government structure are responsible for what, with regards to transport.

For instance fare setting and licensing for taxis can typically happen at the borough council level rather than county council. The distribution of responsibilities varies from region to region across the UK so it's best to check directly with the local council passenger transport team for clarification.

### ROLE OF ELECTED OFFICIALS

Innovators should keep in mind that rural transport is a highly emotive issue which attracts the attention of elected councillors. Councillors can therefore be a valuable ally to help champion new ideas in their community. They can also provide valuable connections to residents and community organisers.

### OTHER PUBLIC BODIES

It's worth remembering that local authorities are only one part of the picture in terms of commissioning public transport. Local NHS services through Clinical Commissioning Groups also spend large sums of money. In rural areas on non-emergency passenger transport and face many similar challenges to local authorities.

## LOCAL AUTHORITIES - SUMMARY



Local authorities offer great potential to deliver rural transport innovation through their reach and funding powers.



The size of transport budgets combined with traditional approaches to funding offers huge scope for making impact from innovation.



Growing cost pressures have made local authorities increasingly receptive to new approaches and partnerships.



Local authorities need support to move to a role as network enablers, especially in terms of unlocking the potential of data and technology.

# REGULATORS

## TRANSPORT REGULATIONS

### TRANSPORT REGULATIONS – AN OVERVIEW

#### OUTDATED REGULATIONS

High profile legal clashes between new innovators and old institutions over the interpretation of transport regulations have raised fears across the sector that legislation may stifle much needed innovation efforts.

Whilst the legal battles of Uber and others attract the headlines, the reality for most innovators in the UK is that regulators are playing a vital role in supporting new ideas.

Leading regulatory bodies such as the Department for Transport (DfT) recognise the urgent need to review the existing patchwork of legislation in the UK in order to reflect the realities of the fast evolving transport landscape.

For instance, the rules covering taxis date back as far as 1847 and still make reference to horse-drawn carriages! A world running on the internet and smartphones was a long way from legislators' minds when drafting the current rules and regulations.

#### MERGING DELIVERY MODELS

A particular area of concern for transport suppliers is the muddled system of licensing requirements covering taxis, buses and other passenger transport.

The rise of new “on demand” models of transport has brought the flaws in existing legislation into sharper focus. These new transport models are often delivered by non-traditional operators and challenge existing notions of the

split between different vehicle types, payment methods and services.

Unfortunately, whilst the legislative bodies recognise the need for reform, the pace of change is slow.

The good news for transport innovators is that there is often sufficient ambiguity within existing legislation to allow for enough flexibility to design and test new modes of transport.

Furthermore, institutions such as the DfT and the Transport Systems Catapult are keen to help and support new ideas in the sector and can advise on how to navigate the regulatory landscape.

#### STARTING POINTS FOR INNOVATORS

In this section of the guide we adopt the perspective of a new innovator considering the implications of regulations.

We provide a shorthand introduction to help innovators begin to think about the challenges they may face.

We then draw upon our own experiences of creating an innovative digital booking platform to illustrate a practical example. We highlight relevant questions and visualise a model for how to operate such a platform within existing regulations.

We hope this will provide inspiration and ammunition for other innovators not to be deterred from creating new ideas by regulation.

## QUESTIONS COVERED

### ? What aspects should innovators in rural transport be aware of?

We provide a shorthand introduction for innovators to think about the main themes in transport regulation and how they may apply their own ideas.

### ? How do these regulatory challenges look in a real life example of rural transport innovation?

We provide a mini case study based on our own experiences. It highlights key considerations, questions and answers.

### ? Is it possible to operate an innovative business model within existing regulatory constraints?

We provide one practical example of a business model diagram for a digital booking platform. It illustrates how various parties would engage with one another to deliver the model.

## METHODOLOGY

The information relating to the current legislation and considerations was drawn from primary research interviews with staff from the Department for Transport, Local Authority Passenger Transport Teams and transport suppliers in Essex and Suffolk.

The example business model was designed during a dedicated workshop hosted by the Department for Transport and attended by Transport Systems Catapult, FutureGov and Essex and Suffolk County Councils.

## TRANSPORT REGULATIONS – OVERVIEW OF CONSIDERATIONS FOR INNOVATORS

**AT A GLANCE** – Assuming that you have been able to establish demand and supply for a new transport service the next question for transport innovators is commonly “am I allowed to do this?”.

Rather than attempt to give a comprehensive overview of the regulatory landscape this guide aims to provide a shorthand introduction to the most relevant considerations from an innovator’s perspective.

**THEMES** – The considerations are split into three regulatory themes which routinely pose challenges to implementing new ideas. Readers are advised to think about their own idea with these themes in mind and to explore the relevant aspects in more detail with experts.



### OPERATING

An operators licence of some variety is typically required to supply passenger transport services.

New entrants can often find the wide range of licence types and the associated conditions overwhelming.

Services which don’t fit neatly into one of the existing categories face potential legal challenges from competitors. Ride-sharing services such as Uber are one such example which operate in a current grey area.

New business models which use existing suppliers need to establish which licences are able to operate the service.



### ROUTING

The majority of new passenger transport services are required to register their routes and timetables with 56 days notice for approval by the regional Traffic Commissioner.

Whilst flexible services with no fixed route or schedule can be established these can only serve one local neighbourhood not entire counties.

Furthermore, all of the councils a route passes through must be informed of any new routes.

When combined with competition rules about where services can operate, there are real challenges to operating flexible services across large areas.



### PRICING AND CONTRACTING

Rules around pricing and profit making are closely tied to the different types of operators licences.

However, the rise of brokerage and booking services which facilitate rather than provide transport, pose new challenges to existing regulations with regard to who can decide fares and who is legally responsible for providing services.

Further complicating the pricing situation are considerations of accepting concessionary fares, the use of subsidies and entitlement to grants. All of these will be relevant to new passenger transport ideas.

## CASE STUDY

### A DIGITAL BOOKING PLATFORM FOR DEMAND RESPONSIVE TRANSPORT (DRT)

This case study draws upon the authors' own experiences of creating an innovative concept for a rural transport service. The next few pages aim to provide a practical insight into some of the regulatory questions faced. It also aims to show the potential to find creative solutions within existing regulations so as to operate an innovative model.

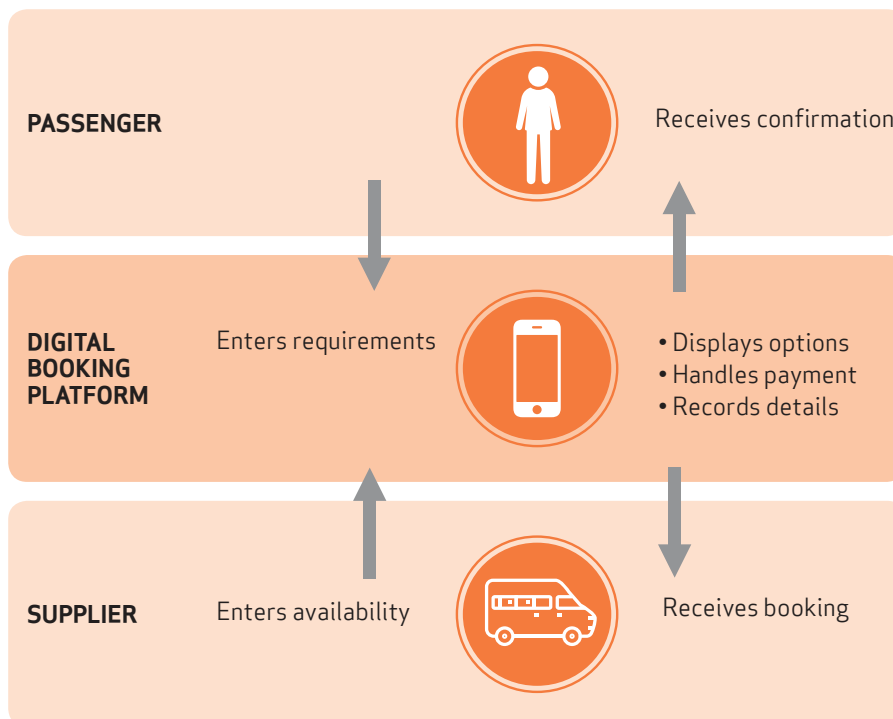
#### CONCEPT OVERVIEW

##### Digital booking platform

- The concept is for councils to operate a digital brokerage platform that enables residents to easily book local demand responsive transport services.
- A digital platform approach aims to create a standardised booking experience for passengers across different suppliers.
- Suppliers and passengers register to use platform.

#### UNIQUE ASPECTS OF THE CONCEPT

- Operating standardised routes but with flexible times and pick-up points is dependant on bookings.
- Councils act as the broker to leverage their local relationships and handling payments in advance.
- Uses existing local suppliers with different licence types to supply services.
- Aims to advertise and use spare capacity on existing journeys.



## DIGITAL DRT - CHALLENGES AND CONSIDERATIONS

**QUESTIONS** - Summarised below are the main regulatory questions which arose in the course of developing the concept for a digital brokerage platform for DRT.

**UNCERTAINTY** - It is worthwhile noting that many of these questions originated from current participants in the rural transport network; transport suppliers, regulators and commissioners who worked closely with the authors. New transport service concepts which don't cleanly fit within existing regulations are a cause for confusion even amongst those very familiar with the sector.



### OPERATING

#### Main challenge:

How to maximise the number of existing local suppliers to join the platform and offer their services?

#### Questions:

- What licences would suppliers require to operate this service?
- Can providers offer bookable space on their existing services on the platform?
- Are there distinctions between what commercial and voluntary services are permitted to offer?



### ROUTING

#### Main challenge:

How to offer and fulfil a service running quasi-flexible demand responsive routes?

#### Questions:

- Do routes need to be registered in accordance with statutory notice periods?
- Does the flexible routes provision cover this concept?
- Will competition rules restrict when and where routes can be offered?



### PRICING AND CONTRACTING

#### Main challenge:

Can the council as the broker set fares and conditions of operation?

#### Questions:

- Who is the contract of service between in this brokerage model? Who pays who?
- Can the council subsidise fares to stimulate supply and demand?
- Can services be made to accept concessionary fares?
- What is the impact of advance payment, if any?



## DIGITAL DRT – ANSWERS AND OPPORTUNITIES

**EXPERT ADVICE** – A workshop with industry experts was held to explore options for resolving the main regulatory challenges facing Digital DRT. Attendees included the Department for Transport, Transport Systems Catapult, supplier representative and council transport teams. Summarised below are the outcome findings of the workshop.



### OPERATING

**How to maximise the number of existing local suppliers to join the platform and offer their services.**

#### **Answers and opportunities:**

Suppliers holding almost any of the existing passenger transport licence types would be able to offer this service as booking through a digital platform would constitute routes being offered to a specific membership group not 'general public' and widen the potential scope for use.

Services operating under licence types relying on community transport and voluntary drivers (section 19 and 22s) can't presently advertise their spare capacity on the service due to restrictions on making profit. The same is true for non emergency hospital transport services.



### ROUTING

**How to offer and fulfil a service running quasi-flexible demand responsive routes?**

#### **Answers and opportunities:**

Flexible routing doesn't presently extend to cover areas as large as whole counties.

Presently even flexible areas of operation would have to be registered in advance with the Traffic Commissioner

Work closely with the local Traffic Commissioner to use their supplementary power to test an approach of rapid registration.

Council would have to use its discretion to permit suppliers to operate routes in areas where existing commercial operators already offer a scheduled service.



### PRICING

**Can the council as the broker set fares and conditions of operation?**

#### **Answers and opportunities:**

The council as a broker can establish commercial terms which suppliers must agree to, in order to use the platform, including price structures and accepting concessionary fares

Contract for service exists per individual journey between passenger and the supplier. Council would simply handle the transaction and pay the supplier the funds received. These can be paid in advance without issue.

Councils may be able to use subsidies to stimulate supply but there are likely to be restrictions over the circumstances.

## DIGITAL DRT – OPERATING MODEL

This is an overview of how a pilot of a platform approach to Digital DRT may be operated within the constraints of existing regulations. It illustrates some of the conditions and dependencies relating to a brokerage business model.



### TRANSPORT SUPPLIERS

- Suppliers agree to commercial terms in order to have their services sold on platform. These include rules around fares and publishing open data on activity.
- Any commercial operator with the requisite licence and vehicle conditions is eligible.
- Contract is directly with the passenger for each journey.

### DIGITAL BOOKING PLATFORM

- The local authority can operate or support a digital booking platform acting as a third party booking agent.
- Can set fares and conditions of travel for platform users.
- Authority must work together with the local Traffic Commissioner to reduce registration period for new flexible routes to a minimum.

### PASSENGERS

- Signing up to platform terms means users aren't 'general public' and are part of a membership group.
- Passengers can book and pay digitally in advance of their journey.
- Passengers enter into a direct contract with the supplier for each individual journey.

## REGULATIONS – CONSIDERATIONS

### READ UP ON EXISTING REGULATIONS

It's important for innovators to understand the fundamentals of road transport regulations to minimise the potential for costly surprises. The Traffic Commissioners' website is a great place to get a basic understanding of current regulation, including the various licence types and guidance on setting up a bus service: [gov.uk/government/organisations/traffic-commissioners](https://gov.uk/government/organisations/traffic-commissioners)

### CONNECT WITH INDUSTRY EXPERTS

The recent wave of innovation in urban transport has brought the state of existing regulations into sharp relief. One upside of this is that industry experts have become well versed in advising start-ups and innovators on how regulations may impact their concepts.

The Department for Transport (DfT) Policy Team [gov.uk/government/organisations/department-for-transport](https://gov.uk/government/organisations/department-for-transport) and the Transport Systems Catapult (TSC) [ts.catapult.org.uk](https://ts.catapult.org.uk) are two valuable connections for innovators when they embark on designing new solutions.

### BUILD ON THE WORK OF PEERS

The explosion in companies working on urban transport innovation has another potential upside for rural innovators in that it has led to the creation and operation

of new forms of operating models in the sector. Innovators in the rural space should look to these as examples to learn from and build upon, such as platform booking approaches like GETT [gett.com/uk](https://gett.com/uk) where bookings are handled by a third party platform.

### FOLLOW INDUSTRY NEWS FOR ANALYSIS OF LATEST CHANGES

Although regulatory changes aren't frequent, they are happening. The Bus Services Act 2017 is one such example. It introduces new franchising powers for local authorities, and has the potential to offer local authorities greater scope to influence rural transport. For rural issues, few sites cover the issues as well as the Campaign for Better Transport: [bettertransport.org.uk](https://bettertransport.org.uk)

### BE AWARE OF THE POTENTIAL REGULATORY IMPACT OF OPERATING IN MULTIPLE AREAS

Existing regulations allow for localisation in several areas so it's important to check with the Regional Traffic Commissioner and local authorities in your intended operating area to clarify what rules apply to your concept.

## REGULATIONS – SUMMARY



UK road transport regulations are becoming increasingly unsuited to modern operating conditions which can lead to inertia when planning innovative new services.



Operating, routing and pricing are three of the main thematic areas for innovators who are new to the sector to become familiar with.



The wave on urban transport innovation has shown it's still possible to run innovative new services within existing regulations.



National regulators are open to change and have demonstrated their intent to provide practical support for innovation.

# SUMMARY

We hope that this guide provides would be innovators with a fair and practical introduction to some of perspectives and trends in UK rural transport. More than any time in recent memory, rural communities need innovative new ideas which can provide mobility solutions.

We also believe that there's never been a time of greater possibility and potential for bold thinkers and doers to seize the opportunity to use new digital tools and approaches to re-invent traditional rural transport services.

## WHAT ARE YOU WAITING FOR?

### PASSENGERS

Rural residents aspiring for greater independence represent untapped demand for mobility solutions.

### SUPPLIERS

Existing transport suppliers have spare capacity and willingness to offer new services to new passengers.

### LOCAL AUTHORITIES

Local Authorities are more willing than ever before to support new ideas that can help tackle the public funding crisis in rural transport.

### REGULATORS

Urban transport innovators have shown the way that current UK regulations still offer sufficient scope to deliver new models of transport.



THANK YOU FOR READING

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