



# Rural MaaS: Where are we at?

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**Part Time PhD Researcher**

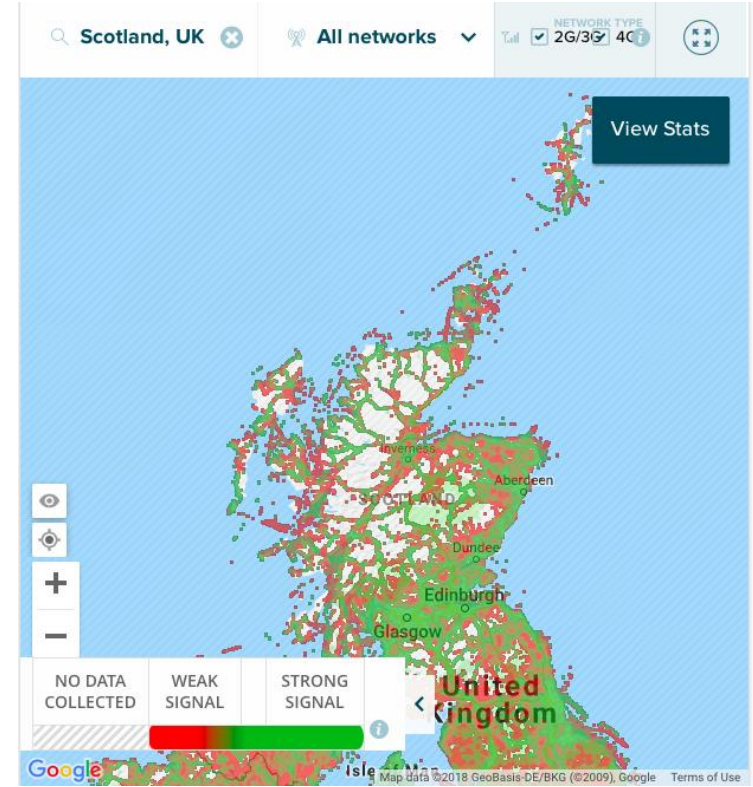
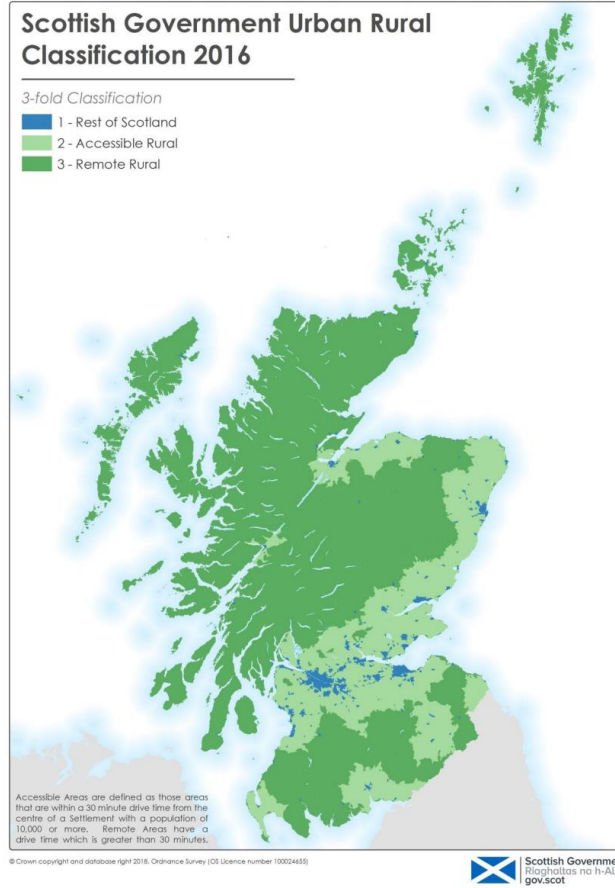
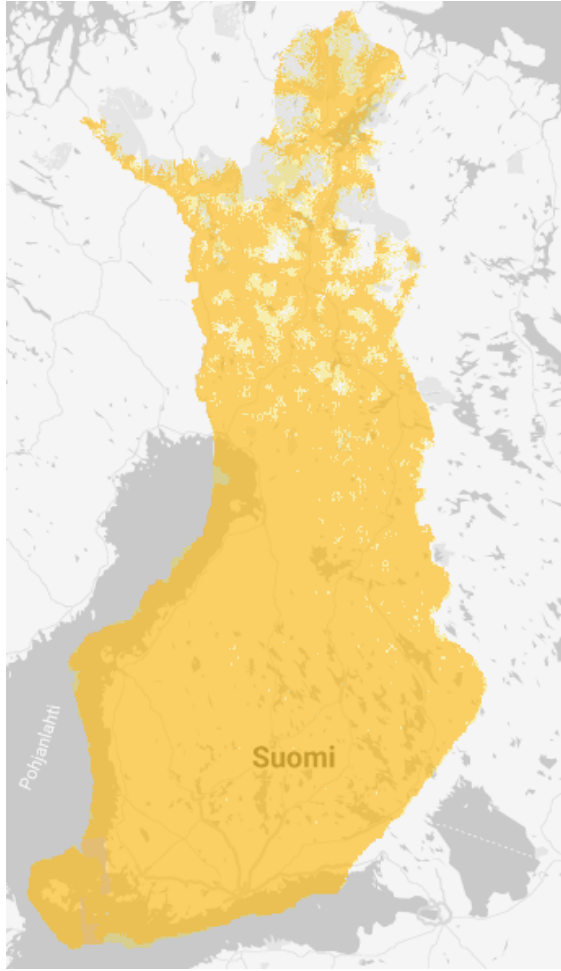
**Business owner - JLM**

**Part Time Farmer**

**Mum and Wife**

**Jenny Milne**

- 1 **MaaS Definition**
- 2 **Case Study in America**
- 3 **Portugal**
- 4 **Cairngorms Connected**
- 5 **Inverurie**
- 6 **Conclusion**



- **98%** of Scottish land mass is rural
- **17%** of the population lives in rural areas – and growing faster than urban areas
- **Compared** to urban populations, those living in rural areas are:
- **Ageing** faster
- **Far** more likely to own a car
- **Most** likely to travel by car even if they don't own one
- **Spending** far more on fuel
- **Less** satisfied with public transport
- **Less** likely to be within a reasonable drive time of essential services
- **Accessing** largely subsidised bus services
- Using older infrastructure
- **Across** the UK, disproportionately more GP surgeries, Post Offices and bank branches have closed in recent years in rural areas
- **Social** isolation and loneliness are a significant concern





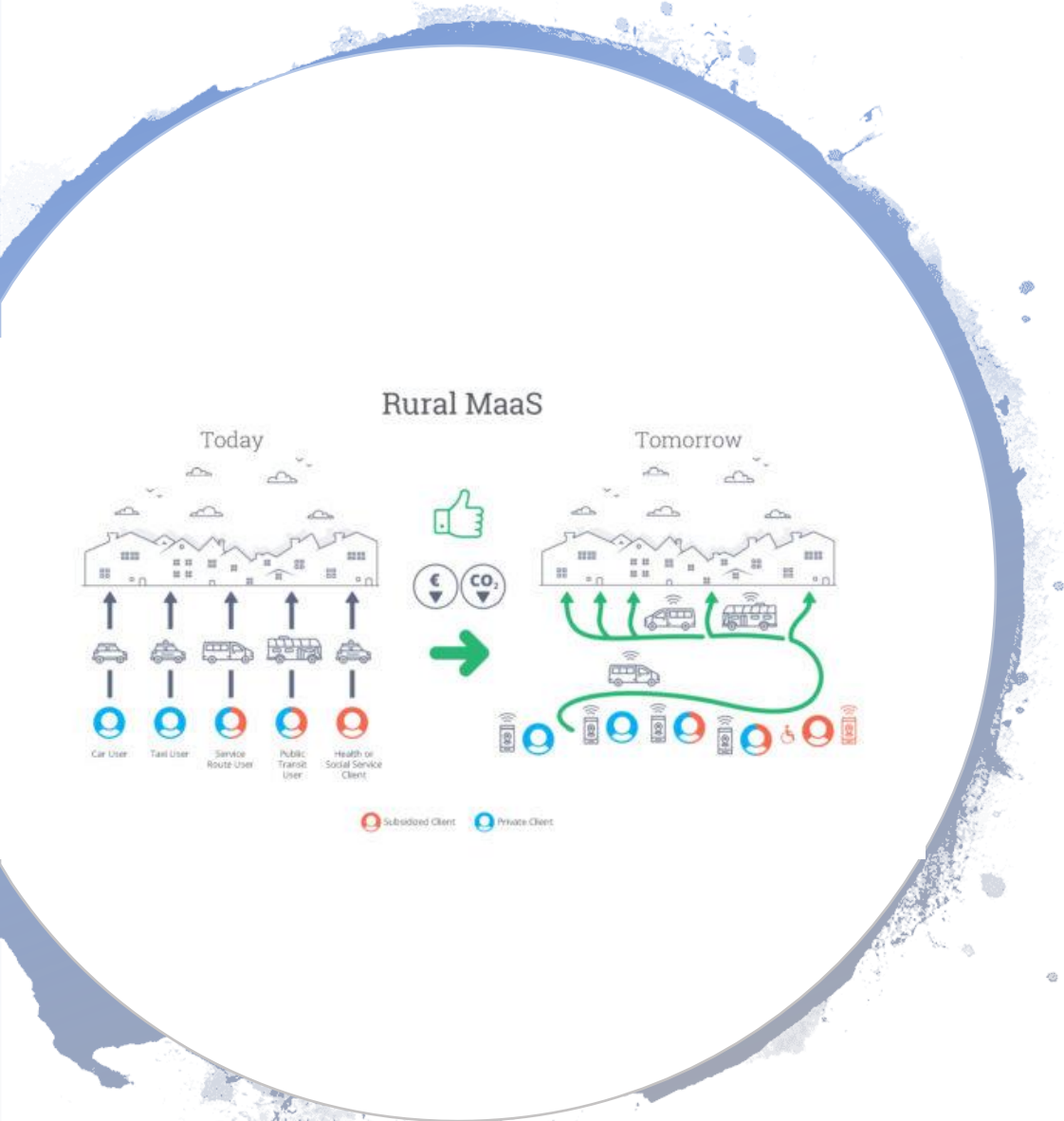
## What does MaaS mean to you?

**“Put[ting]...users, both travelers and goods, at the core of transport services, offering them tailored mobility solutions based on their individual needs. This means that, for the first time, easy access to the most appropriate transport mode or service will be included in a bundle of flexible travel service options for end users”.**

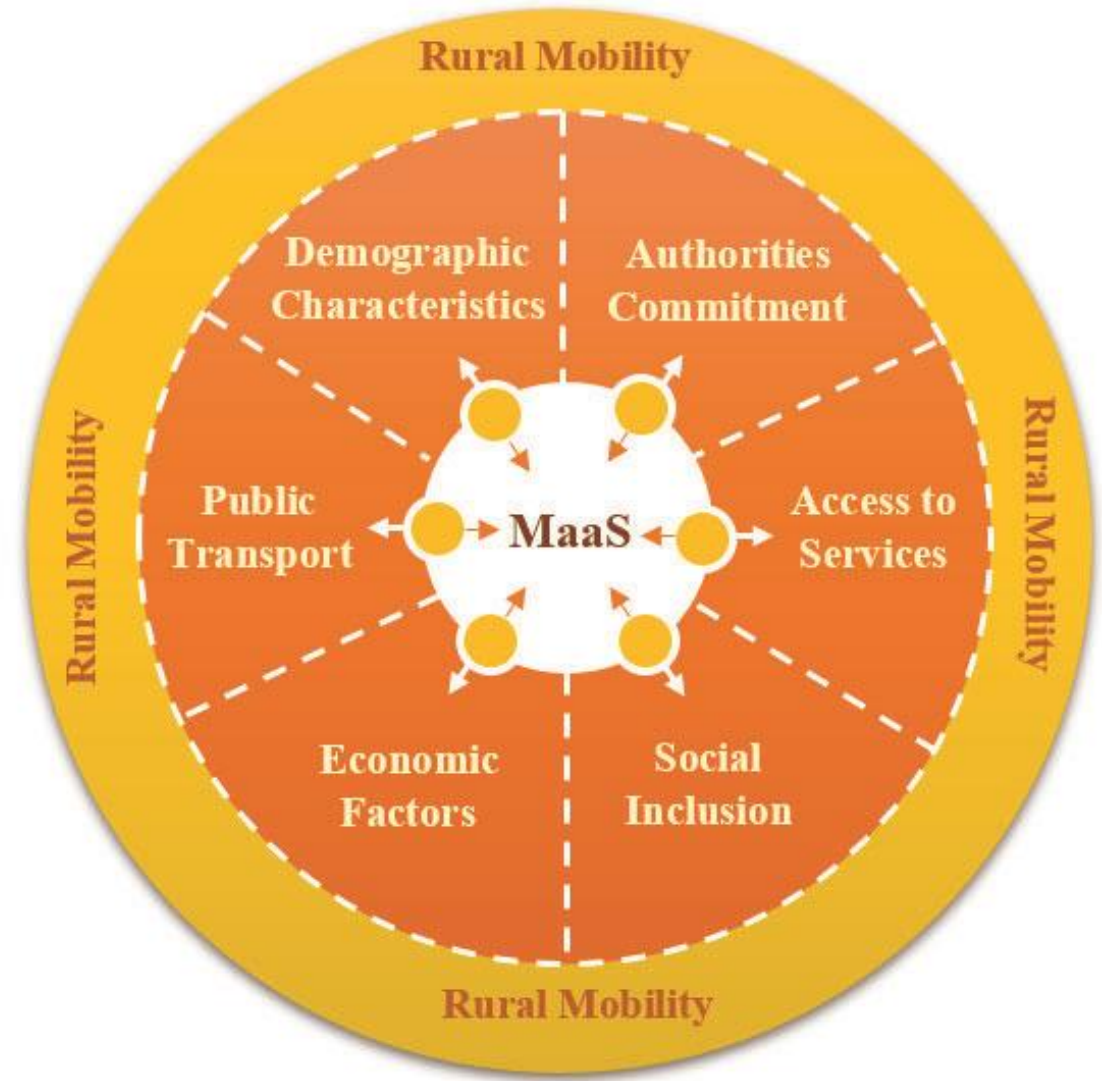
Source: European MaaS Alliance until July 2018

MaaS Alliance – User Centric Vision Paper

What is MaaS?



Source: MaaS Alliance 4<sup>th</sup> June 2019 <https://maas-alliance.eu/how-about-maas-in-rural-areas/>



Source: Barreto et al (2018) MaaS in rural regions: an overview

What is Rural MaaS?

# Tompkins County, Upstate New York

## Rural Family Mobility Budget

Vanpool Membership	\$1,500
Carshare (Discount Plan)	\$ 480
Taxi	\$ 200
Guaranteed Ride Member Support 120	\$ 30
Volunteer Driver Revenue	\$ (400)
Vanpool Program Subsidy	\$ (600)
Total	\$1,331
Monthly Payment	\$ 111

## Project Last Mile forges ahead in 2018

17/01/2019

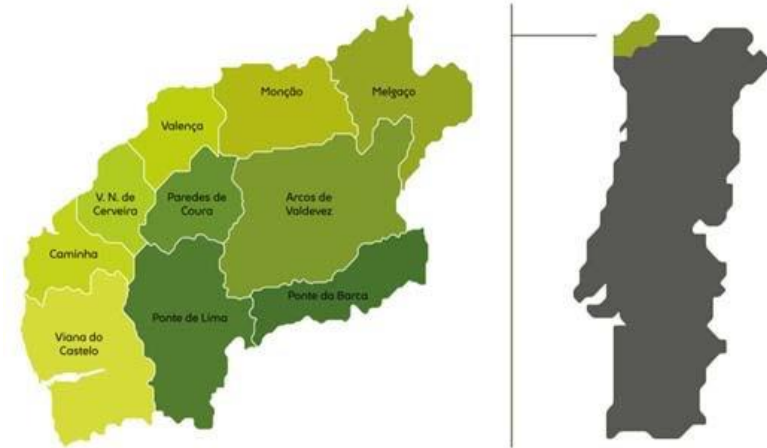
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Leveraging The Coca-Cola Company's distribution, logistics and marketing expertise to improve the availability of life-saving medicines and demand for health services across Africa

## The ALTO MINHO. SMOB Project, Portugal





# Cairngorms Connected

1

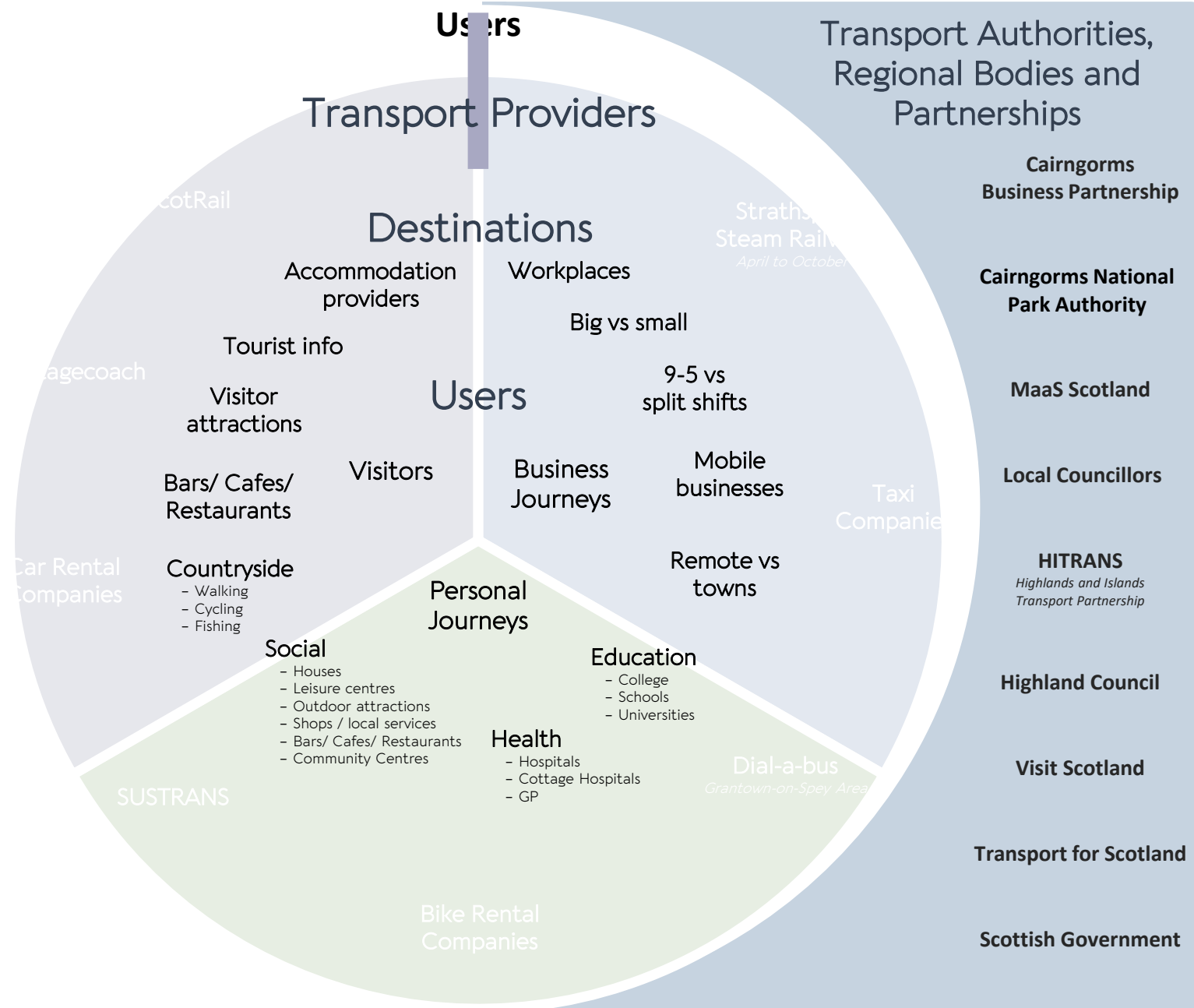
**To understand** how and why people travel in the Aviemore/Boat of Garten/Grantown on Spey area

2

**To understand** what barriers/challenges people/visitors face to travel

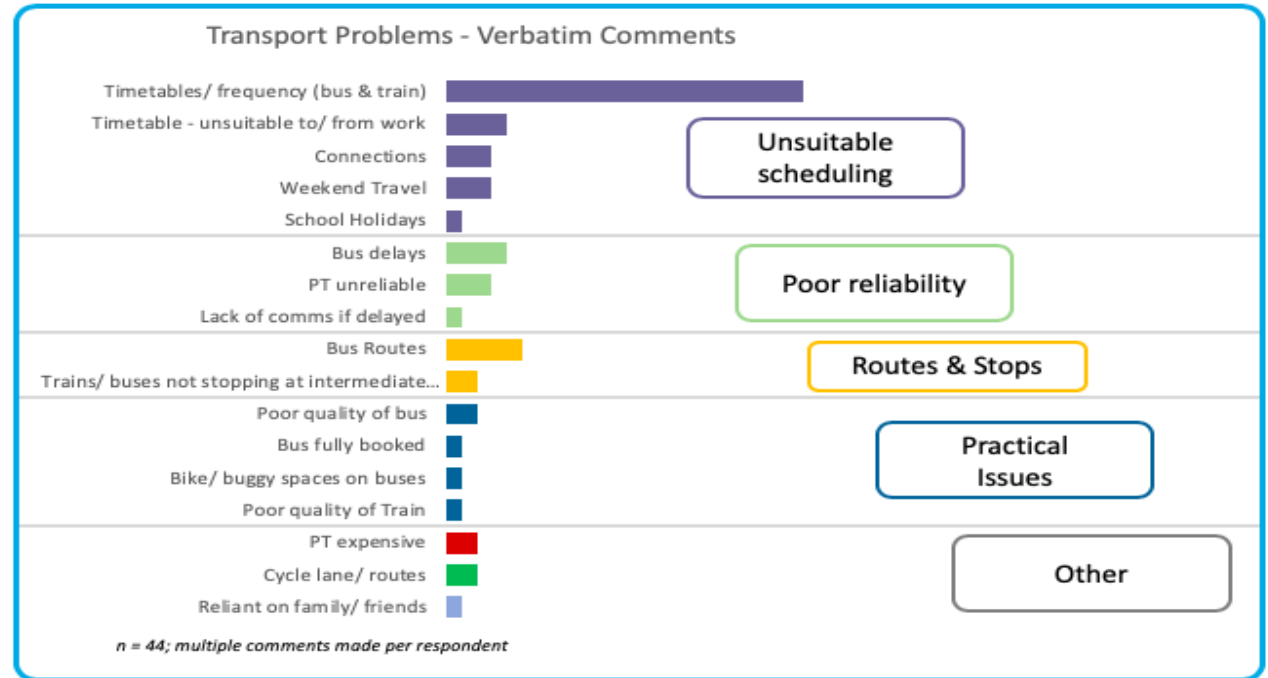
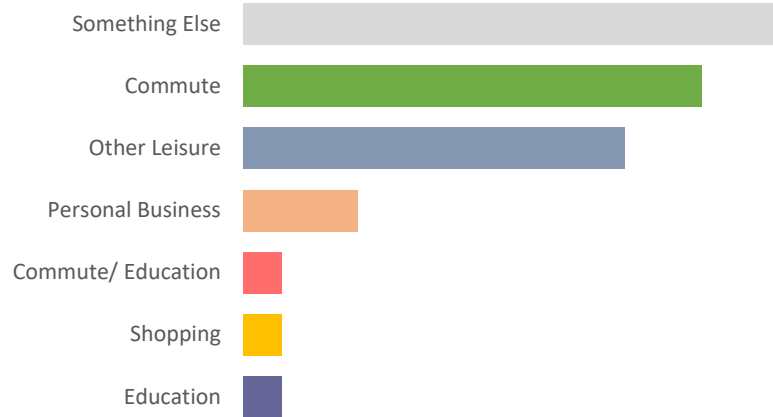
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**To understand** the need and opportunities



	<b>Cairngorms Connected</b>	<b>Inverurie</b>
1-2-1 Transport Stakeholder meetings	X	X
1-2-1 Street Interviews (visitors)	X	
1-2-1 Street Interviews (locals)	X	
1-2-1 Interviews with Businesses, local experts and communities	X	
Online survey (locals)	X (currently underway)	X
Online Survey (visitors)	X (currently underway)	
On Bus Interviews	X	
Transport Stakeholder Focus Group	X	X
Drop In session with local community		X
Community Café and Lunch Club engagement sessions	X	
Business community workshop	X	X
Insights and Co-design workshop with key stakeholders	X	X

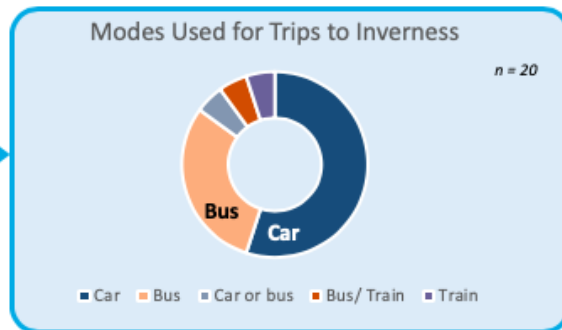
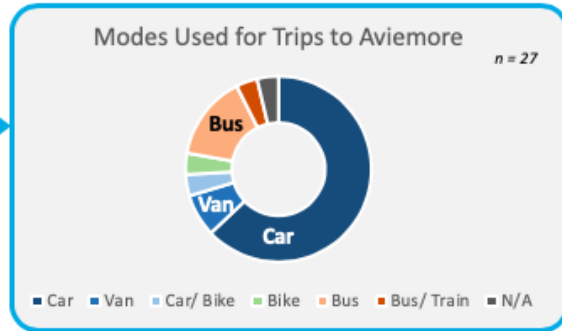
Today's Journey Purpose



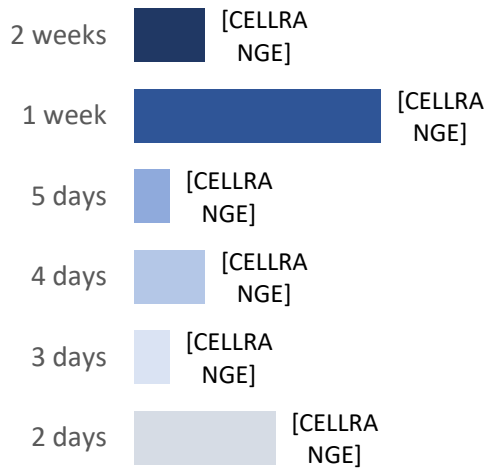
**Common Destinations**

Aviemore	27
Inverness	20
Grantown	10
Carrbridge	5
Cairngorm Mountain	4
Kingussie	4
Newtonmore	4
Glenmore	3
Cromdale	2
Boat of Garten	2
Other	20

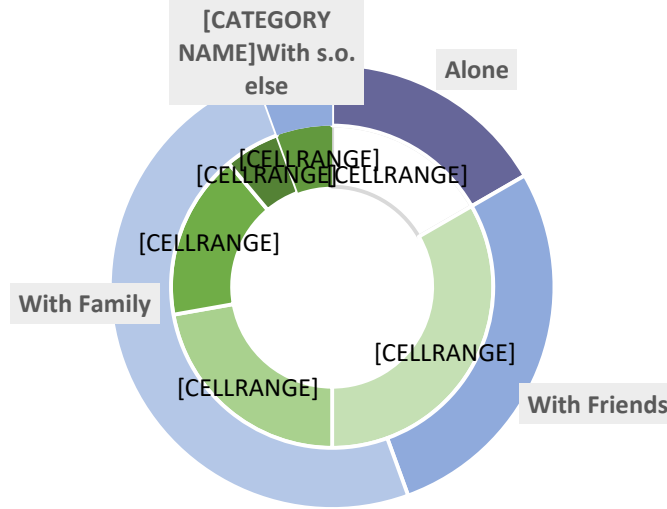
*n = 44; multiple destinations mentioned*



Duration of Visit



Travelling Party (outer ring); Number in Party (inner ring)



Average Duration of Stay = 5.9 days

Mode used to get to Region

Car	61%
Bus	28%
Bike	6%
Private Coach	6%

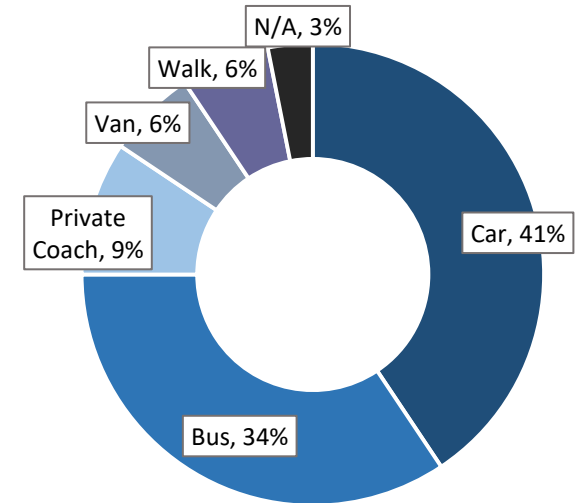
Difficult-to-reach Destination & preferred Mode

- Elgin *Bus*
- Loch an Eilein *Bus*
- Safari Park *Bus*
- Airport *Bus*

Note: These were all cited by people who had travelled by bus

<b>Independent Driver</b>	<p>"Happy as long as having own mean of transportation" [Car and bike user]</p> <p>"Generally happy as using own car." [Car user]</p>
<b>Routes &amp; Stops</b>	<p>"Sunday no busses to Inverness, to Grantown; lack of transport to airport" [Bus user]</p> <p>"More and smaller busses would be good" [Bus user]</p>
<b>Cost Issues</b>	<p>"Bus and train too expensive" [Car user]</p> <p>"Transport fine, turns up on time, not an OAP discount" [Bus user]</p>
<b>No Independent Trips</b>	<p>"There's entertainment every night so stay in hotel" [Coach trip passenger]</p>

Modes Used for Excursions



# Real World Visitor Challenges

Chris and his wife and four friends are travelling from Bristol for a cycling holiday taking with them their bikes. They are travelling to Aviemore and will cycle from Aviemore to John O'Groats and staying in Golspie after reaching John O'Groats.

How do the group of friends travel from Bristol to Aviemore with 6 bikes?

## Car

Why do they chose this mode of transport?

**Only 2 bikes can be booked on a train and that would mean several train journeys and the friends can't travel together.**

The weather turns poor near John O'Groats. How do they reach their BnB at Golspie on a Saturday on their return journey to Aviemore?

**Hitch hiked and found a bike touring company that had dropped off a group of cyclists and was returning to Inverness**

## Summary

- Half of all visitors to the area come from other parts of Scotland
- Around four out of five visitors are there for the purpose of holidaying or other leisure activities. On average, they stay for just under a week (5.9 days)
- Around two thirds of visitors arrived by car, and four out of five visitors were travelling with other people.
- There is some evidence that visitors arriving by car may use other modes to get to the main tourist attractions and towns, though this is likely to be active travel rather than public transport
- Few visitors mention transport problems in the area; those that do comment on the perceived cost, and scheduling/routing issues.
- Visitors find getting the right information about bus schedules, or where to find, for example, e-bike hire locations.

## Needs

- Visitors generally have fewer stated needs of transport in the region, most likely as a result of choosing where to visit when planning their visit, based on the mode of transport used to reach the area.
- Those arriving by bus do need regular bus transport options to places such as the wildlife park (including Saturdays and Sundays) which they cannot otherwise visit
- Alternative modes to the car once in the area is perhaps the greatest potential need, though without explicit awareness of local transport options, is not recognised as something that car visitors might want.
- Those bringing bikes or skis want bike or ski racks on buses; others want to be able to easily hire and use a bike to get to areas of interest
- Easily accessible, reliable information about mode availability (schedules, routes), location (e.g. bus stops), and current status (real time info) is vital for those wanting to travel by public transport

# Personas

## Locals



### 1. Anna

Age: 16; Student  
 Home: Cromdale  
 Journey: Travels daily to Highland & Island Inverness College  
 Car: Parents or friends' parents  
 Tech: Smartphone, tablet, laptop  
 Money: From parents; has a Saturday & Sunday job in Aviemore



### 2. Mike

Age: 35; Hidden Disability; kitchen worker  
 Home: Kingussie  
 Journey: Shops twice a week in Aviemore; socialises at weekends  
 Car: Can't afford one; uses the bus, or gets lifts with friends  
 Tech: Smartphone; limited data  
 Money: Living wage; no dependants



### 3. Mary

Age: 52; Full time librarian  
 Home: Kingussie  
 Journey: To work, at Grantown-on-Spey 5 days a week (incl. weekends); shift patterns  
 Car: Husband is primary user, for commute  
 Tech: Smartphone, Tablet  
 Money: Stable job; husband works too



### 4. Stuart

Age: 72; retired  
 Home: Coylumbridge  
 Journey: Regularly attends Aviemore Medical Center & Aviemore community Café  
 Car: Owns car, increasing medical issues  
 Tech: Landline, basic mobile phone, not tech savvy, no computer usage  
 Money: Comfortable, but careful



### 5. Ellie

Age: 33; unemployed mum, 2 young children; seeking work  
 Home: Boat of Garten  
 Journey: Medical, nursery, shopping Aviemore  
 Car: No car  
 Tech: Smartphone, limited data  
 Money: Tight; reliant on husband's job (he gets a lift to work with a colleague as no car)





## 6. Fred

Age: 71; Retired  
 Home: Stoke-on-Trent  
 Journey: Travelling with his wife around the Highlands on a week's coach trip  
 Car: Local trips at home  
 Tech: Smartphone, laptop  
 Money: Company pension; goes on trips up to a week 3 or 4 times a year



## 7. Rebecca

Age: 41; married mother, two daughters  
 Home: Peterborough  
 Journey: Holidaying in a cottage in Aviemore, day excursions to different places  
 Car: Drove in their own car; use it for all trips  
 Tech: Smartphone; laptop  
 Money: Employed part-time; one foreign holiday and one week's UK holiday per year



## 8. Brad

Age: 29; lives with his girlfriend, works for a publishing company  
 Home: Denver, Colorado  
 Journey: 10 day Scotland vacation; flew to Glasgow, rented a car at the airport  
 Car: At home  
 Tech: Smartphone, Tablet, Laptop  
 Money: Loves travelling, always flies and drives

 Cairngorms Connected

# Personas

## Visitors



## 9. Liz

Age: 44; runs creative services business; single  
 Home: Brighton, E. Sussex  
 Journey: Travelling on the Caledonian Sleeper from London  
 Car: Rarely needs to drive at home, cycles  
 Tech: Smartphone, tablet, laptop  
 Money: High disposable income; enjoys experiential trips both alone & with friends

# Inverurie, Aberdeenshire



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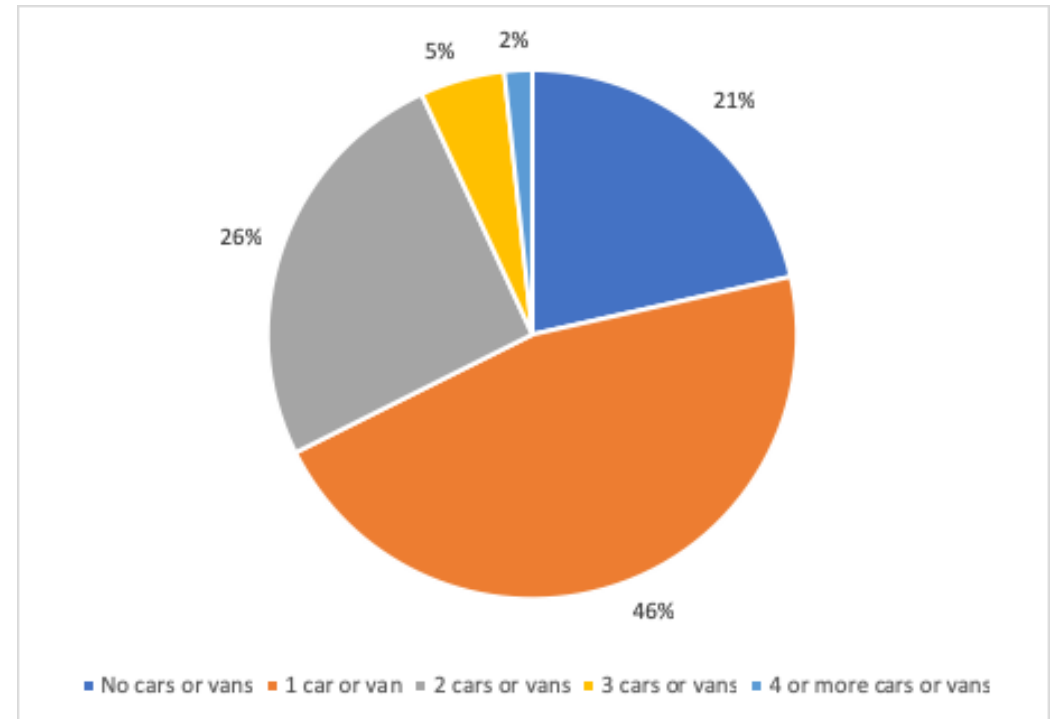
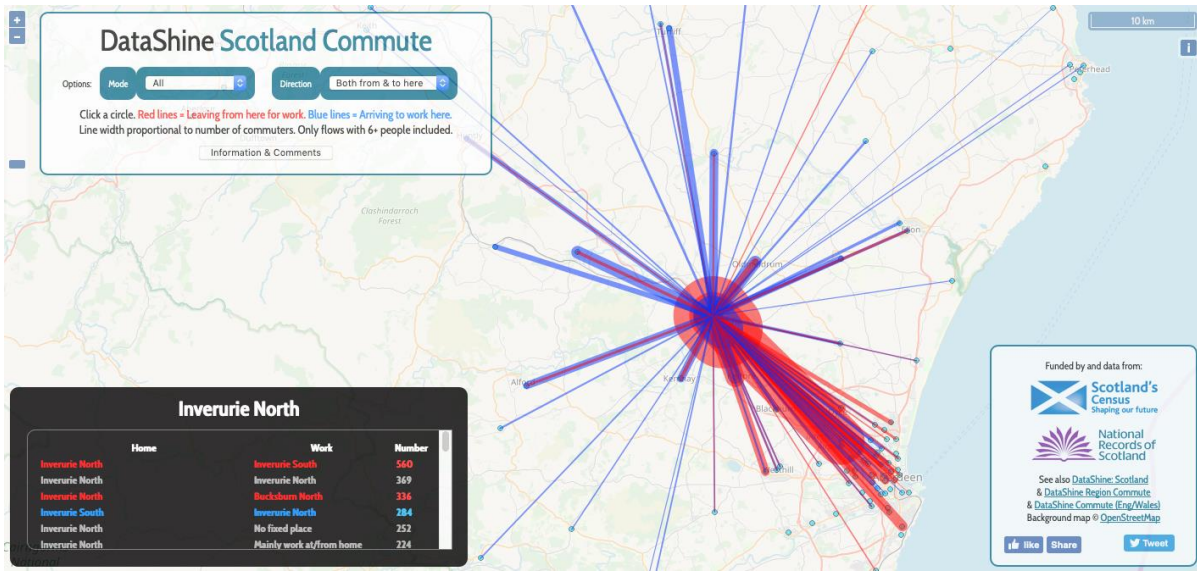
**To understand** user needs (passengers and freight) for mobility services in and around Inverurie

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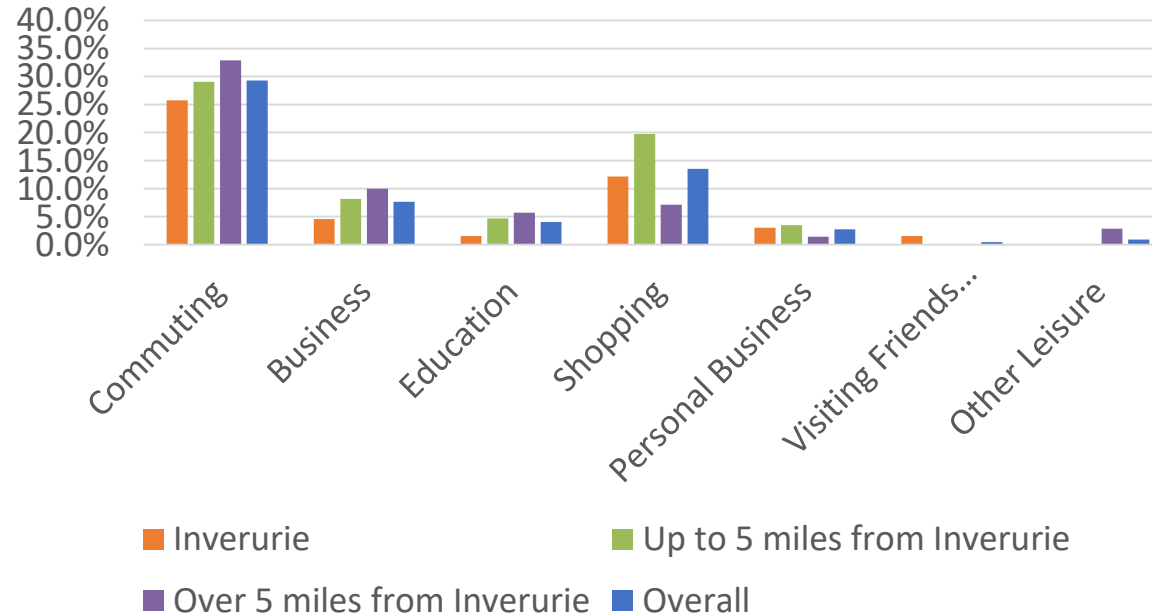
**To identify** mobility gaps and opportunities

3

**To scope** a small trial in Inverurie to meet the identified needs



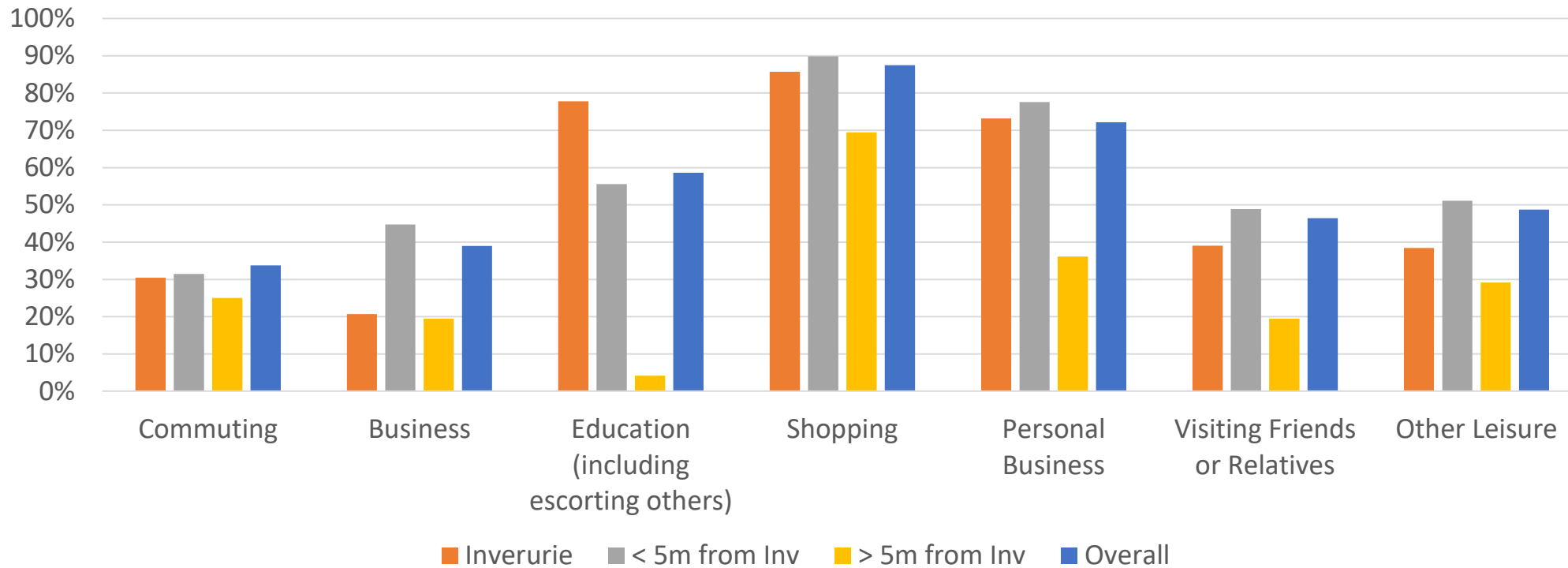
Proportion of respondents saying they would prefer to make **fewer** trips, by journey type and home location



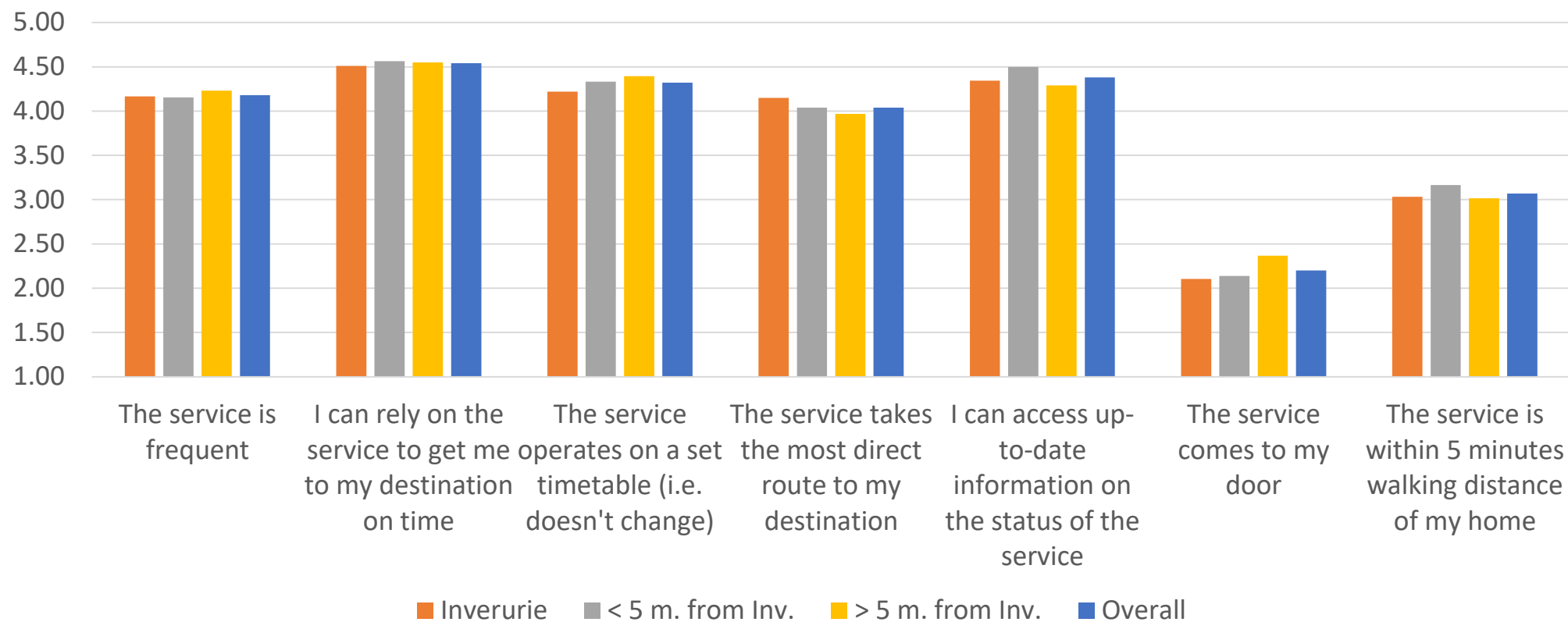
## Proportion of respondents saying they would prefer to make **more** trips, by journey type and home location

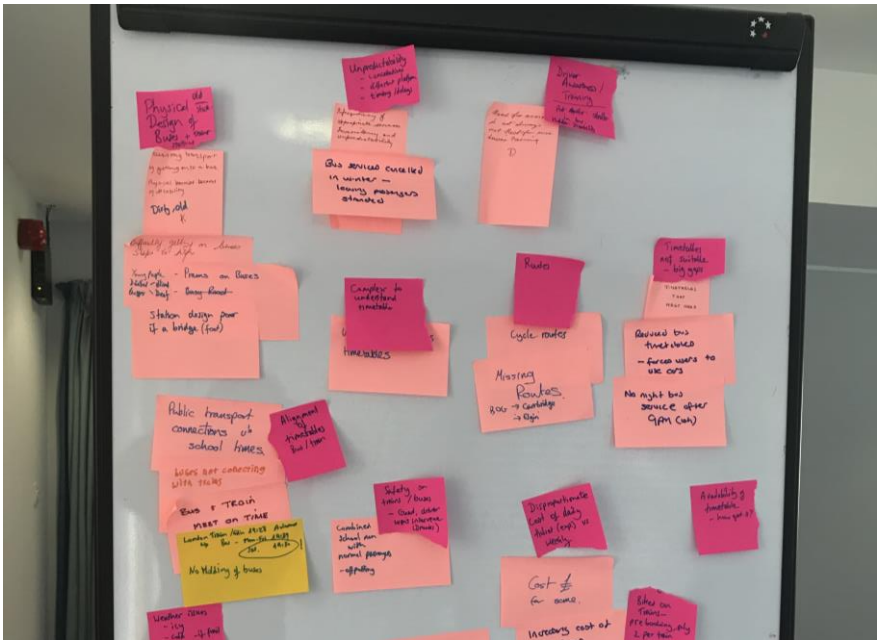


Proportion saying **Inverurie** is '**most common destination**' for different journey types, by home location  
(proportions of people who answered for each journey type)



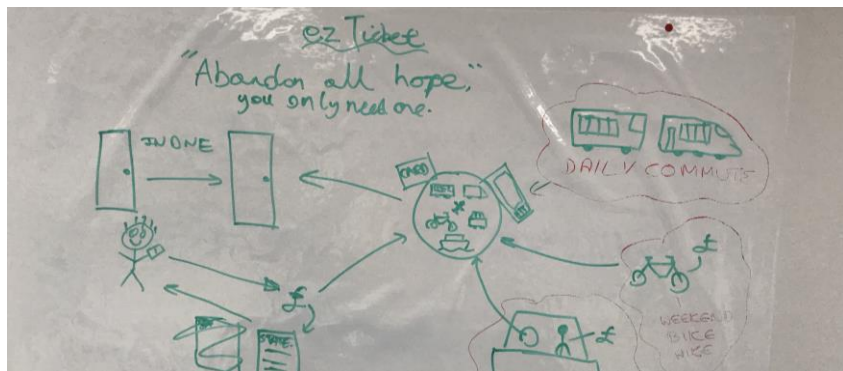
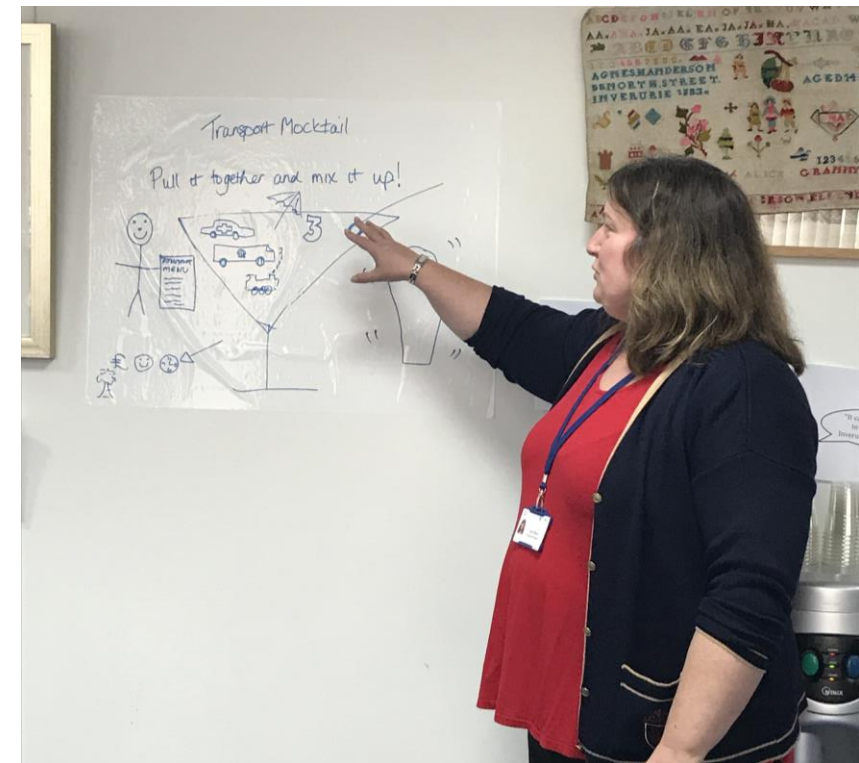
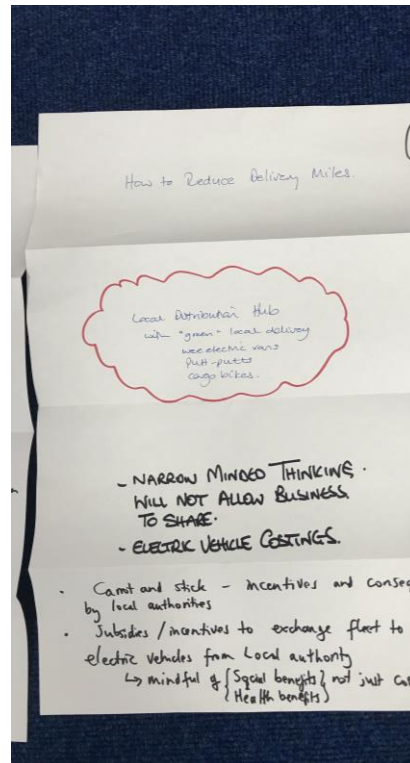
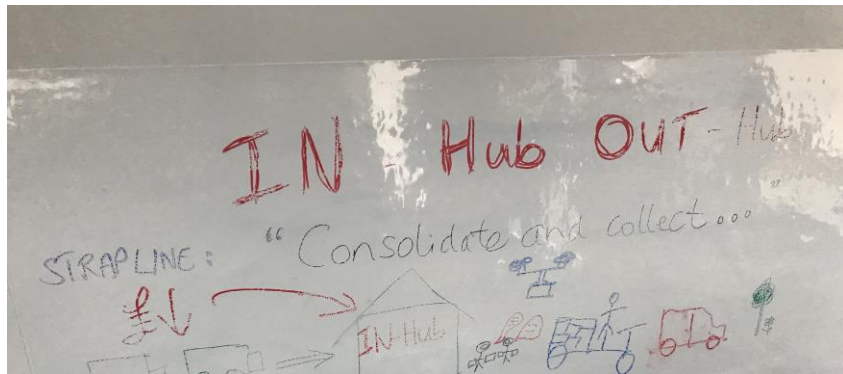
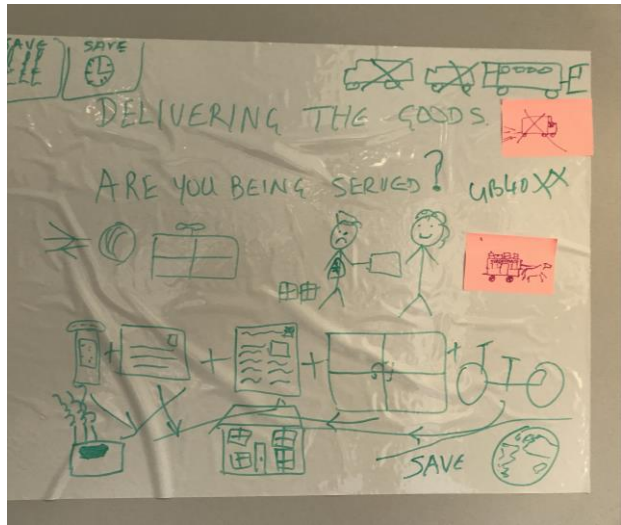
## Importance of different factors for a new transport service, by home location (1=Not important; 5=Very important)

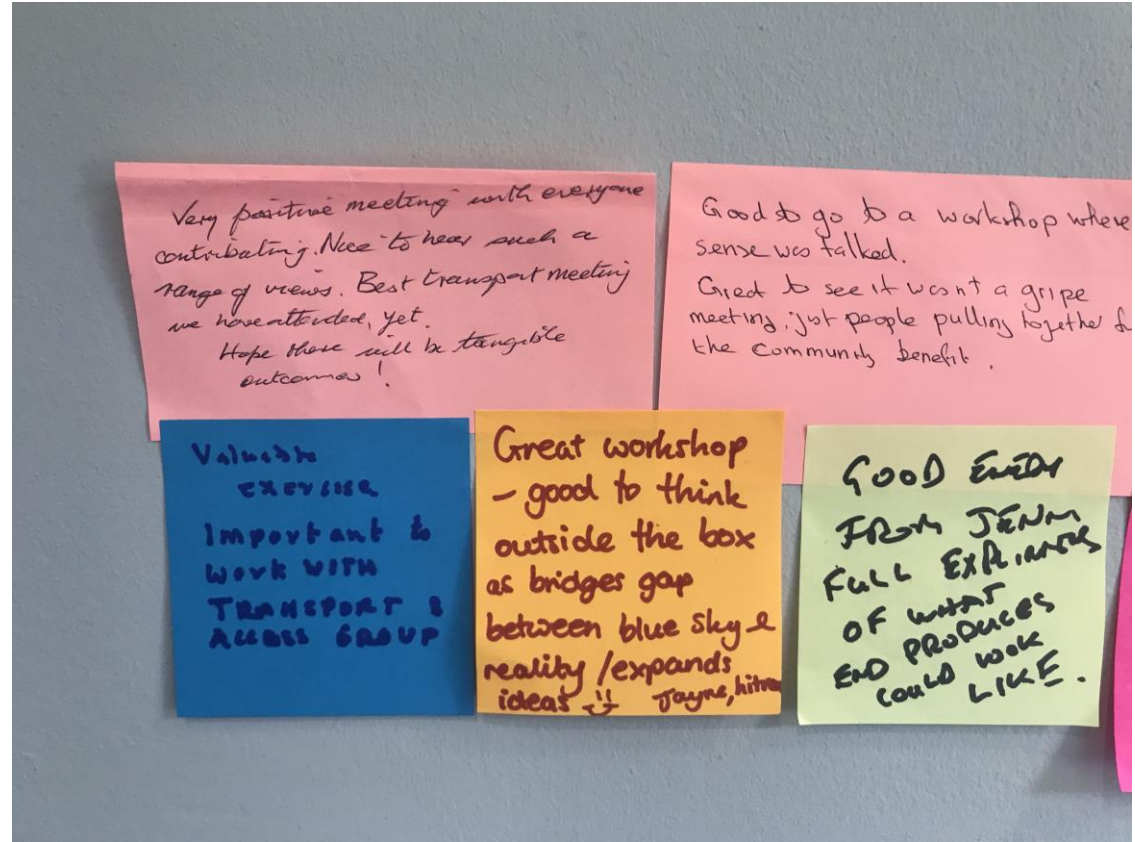
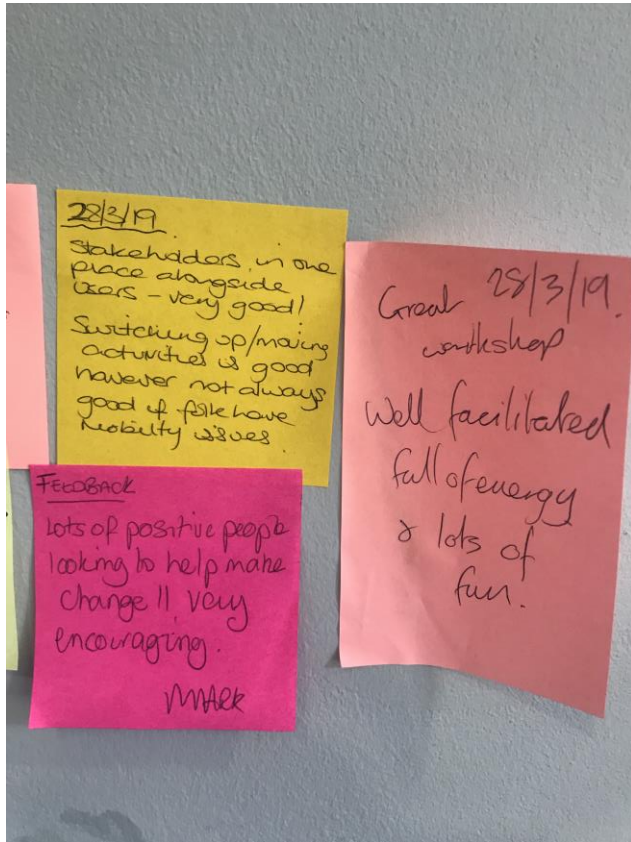




# Workshops For Cairngorms and Inverurie







# Feedback



- Multi-use vehicle operations:
  - Passengers
  - Goods – parcels, supplies for rural businesses and communities (e.g. prescriptions)
- Leveraging peer-peer ride-sharing transport
- Create trip chains by e.g. partnering with existing fixed route service providers to extend the transport network
- Partnering with employers

# Conclusions

- **Vehicle Design**
- **Available infrastructure and connectivity**
- **Active Travel modes are unsafe**
- **Importance of timetable scheduling**
- **Information is key**
- **Transport Operators are willing to listen**
- **Collaboration and communication is key**

inclusion

  
**Hitravel**  
Smarter Travel Choices

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**Thank You**