

JONATHAN LLOYD – TRANSPORT DIRECTOR

# Net Zero Transport: An opportunity for Rural Towns and Villages

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# Introduction

- Rural locations struggle to attract investment due to their perceived low demand for travel
- As of 2020, 10 million people in England lived in rural locations (*Midlands Connect, 2022*)
- According to DEFRA, in 2020, only 10% of personal travel was made using public transport in most rural areas



# RTPI: The role of spatial planning and place based solutions for net zero transport



*“...the scale of the challenge demands a step change in both the breadth and scale of ambition and we have a duty to act quickly and decisively to reduce emissions”  
- Government*

## Substitute trips

### Active travel infrastructure

Cycling infrastructure - genuine connected network

Walking infrastructure - genuine connected network

Logistics infrastructure

Micro-consolidation - cargo bike / electric vehicle last mile delivery

Flexible pick up / drop off points for home deliveries

### Land use planning

Co-working spaces (local, in new developments / disused shops)

Mixed use developments meeting a greater range of local needs

Recreation space embedded in neighbourhoods

Local amenities within short walk and cycle (15-minute neighbourhood)

### IT infrastructure

Home working (superfast broadband and house design to allow for work space)

Remote study and 'blended learning' for further and higher education

Digital public services (e.g. GP online)

## Shift modes

### Shared mobility

Bike share

eBike share

Car share (club)

Electric vehicle car share (club)

Mobility hubs - integrated network

### Modern public transport

Demand Responsive Transport & Rideshare

Bus Rapid Transport

Bus priority traffic lights

Automated vehicle shuttles - last mile connectivity

Mobility as a Service - integrated public transport, on-demand and shared mobility services

### Street design & access restrictions

Low Traffic Neighbourhoods - active travel priority

Car free zones

Street space reallocation from car to active and public transport

20mph zones

Controlled parking zones

Congestion charging zones

### Fiscal measures

Workplace Parking Levy

Fuel tax

## Switch fuels

### Electric vehicle (EV) charging infrastructure

EV charging (residential) + vehicle to grid technology

EV charging (stations / shops / work / mobility hubs)

Hydrogen fuel cell charging (stations / shops / work)

### Conversion of fleets

Convert commercial delivery and servicing fleets to EVs

Convert municipal delivery and servicing fleets to EVs

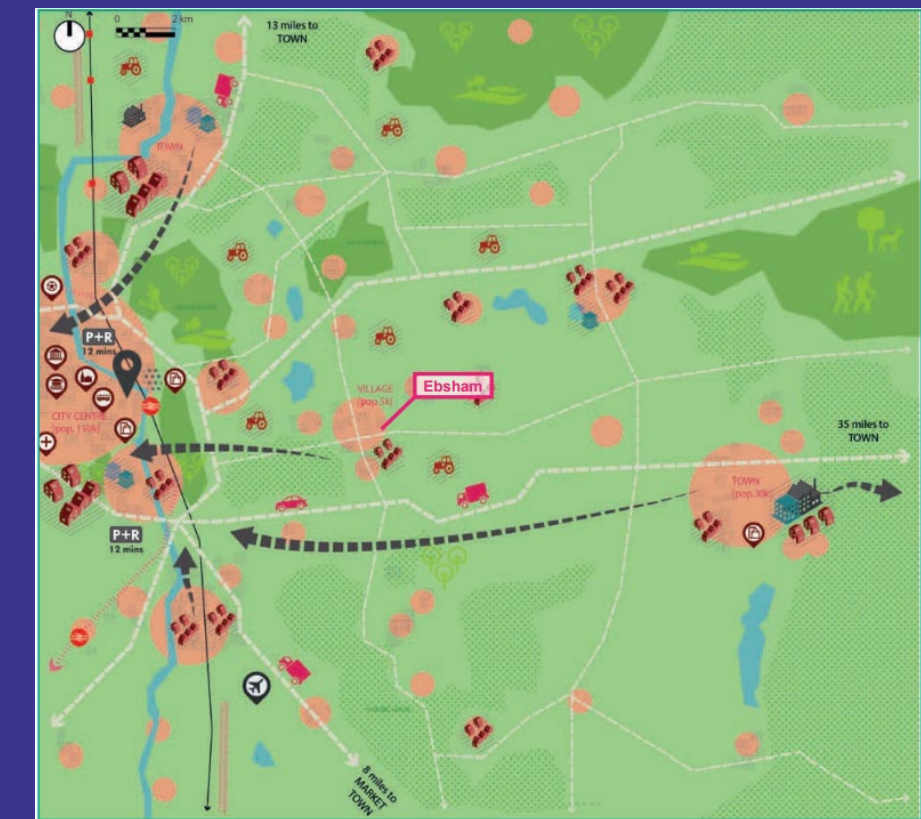
Convert public transport fleets to EVs

### Fiscal measures

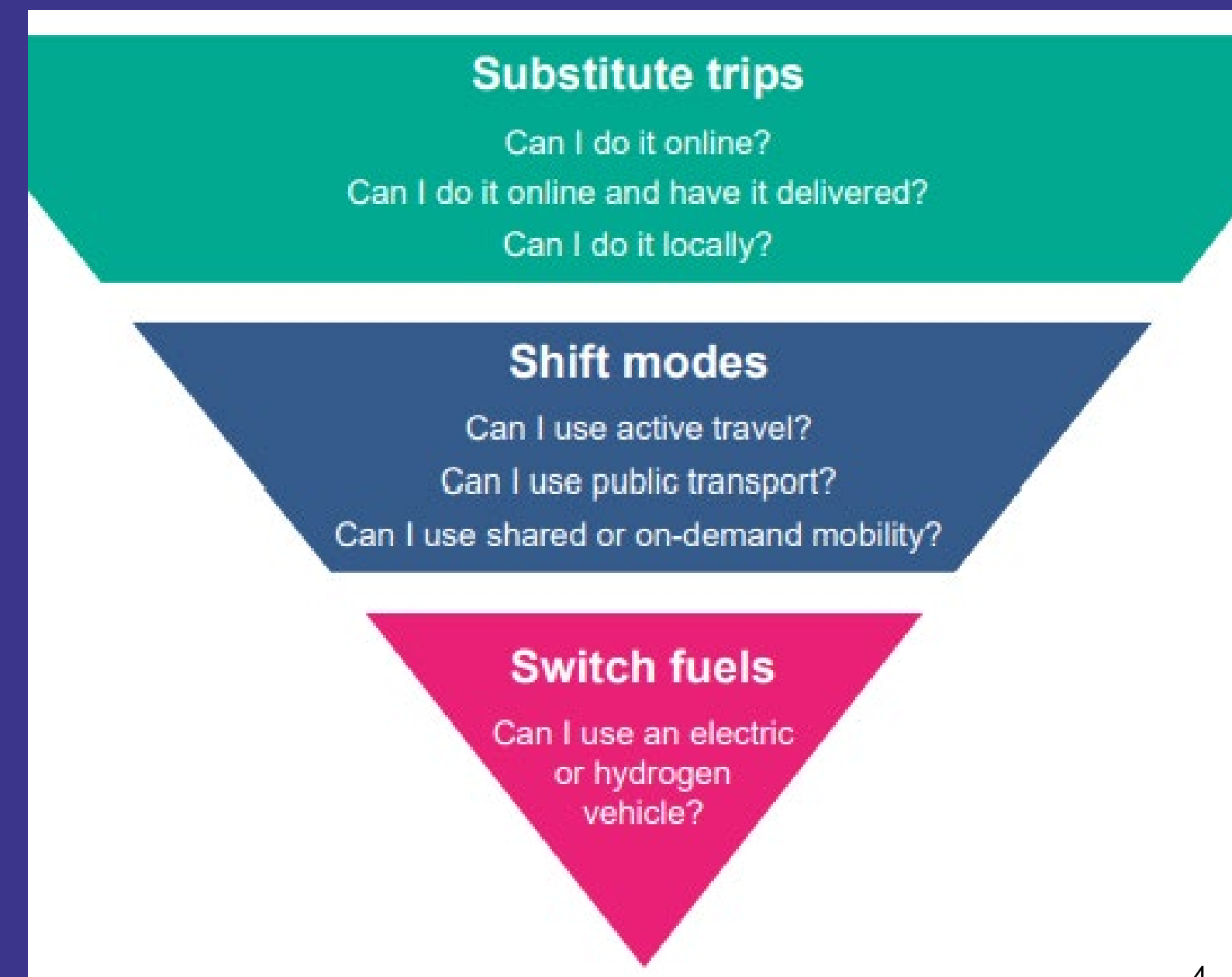
Grants to trade in petrol / diesel for EVs

### Access restrictions

Low emission zones - Clean Air Zones



# SAM Framework & Interventions





## 1) Land Use



## 2) Technology



# Key Intervention Packages:

PTV GROUP

## Mobility Hub

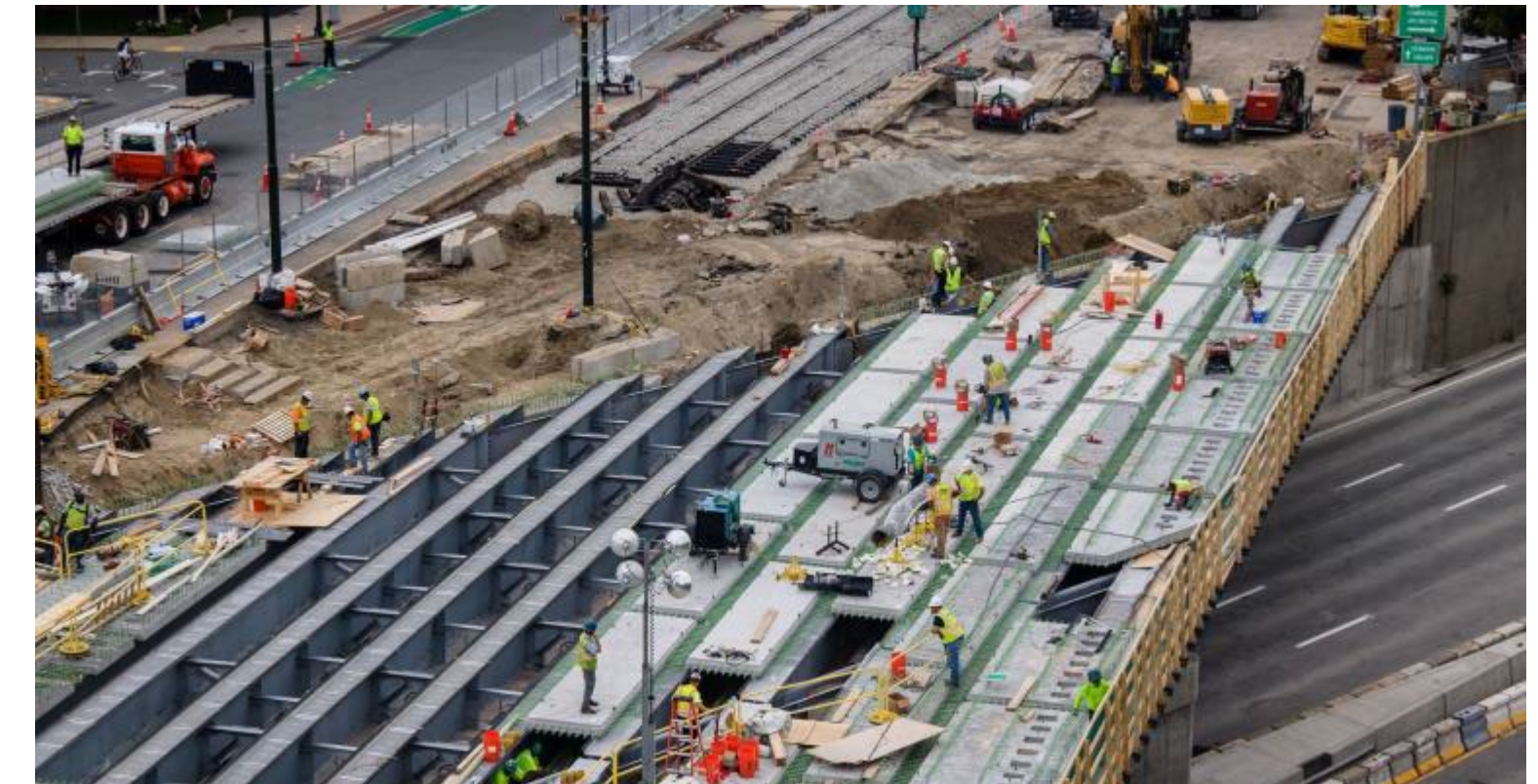


## 3) Infrastructure

# Challenges for Urban Settlements and New Communities

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- Large scale infrastructure interventions
- Small shifts across a large population
- Still roads focused



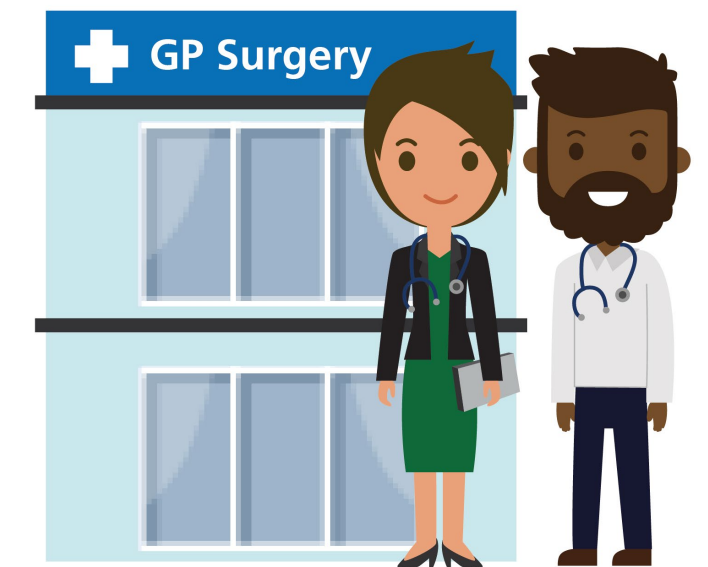
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## The New Normal:

- Working from home
- Accessing services and commerce online
- More activity throughout the day



# Local Living; It already Exists





# Opportunities for Rural Communities

- Changing living patterns offer greater viability to retain and expand local services and facilities
- Funding opportunities exist through:
  - 1) Sustainable population growth and S106, best achieved through the neighbourhood plan process
  - 2) Local Authority funds
  - 3) Direct Government Investment through sustainable transport fund programmes





**Bad Birnbach Connected Autonomous Vehicles (CAV)**

## Infrastructure Investment at a local scale

- SMARTA proposals
- Smaller scale interventions with more ‘bang for buck’
- Significant potential for carbon savings



**Rural Mobility hub, Netherlands**

## Rural Transport Program, Ireland



## Devon work hubs, UK



## National Mobility as a Service (MaaS) Framework, Finland



# Summary

## Opportunities for Rural towns and villages

- Greater potential for carbon savings per population head than urban settlements
- Greater carbon savings already seen in post covid behaviour change
- Towns and villages already have core facilities for local living
- Local Living offers greater viability for exiting or proposed services
- Investment opportunities at a local scale
- Technology offers renewed scalable mobility investment opportunities



# Thank you