

- **APSE Scotland – Transport & Mechanical Advisory Group**
- 31st August 2022
- **Delivering Scotland's Charging Infrastructure**
- Alastair Young – Associate Director – Net Zero Transport

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**TRANSPORT
SCOTLAND**
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Public Charging

Accelerate investment in public EV charging and mobilise private capital

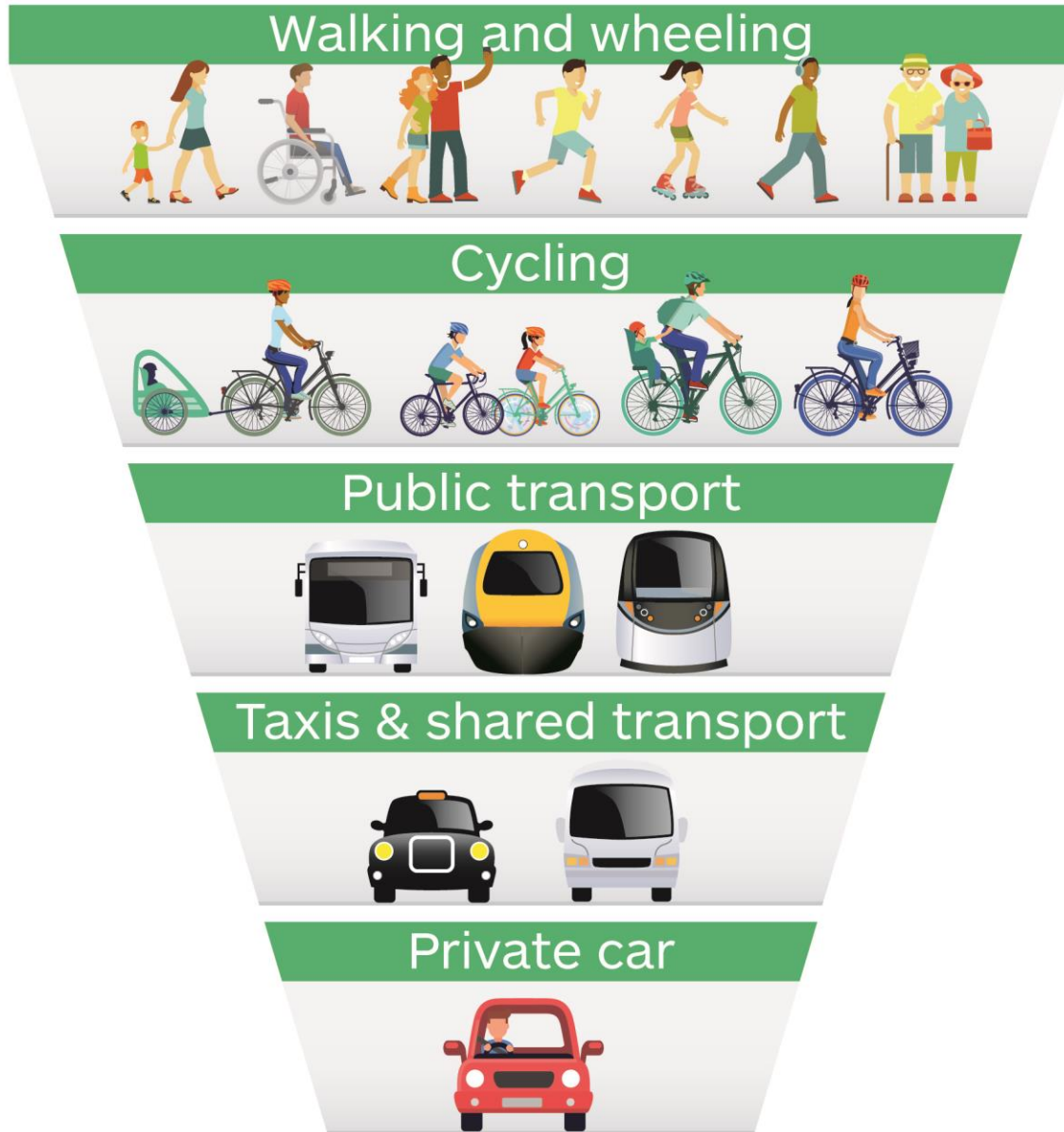
Fleet Charging

Explore alternative approaches to delivery fleet charging infrastructure

Buses

Support the development of new delivery and financing models to enable the decarbonisation of Buses.

Prioritising Sustainable Transport



Scottish Government's Priorities

- Reducing private car km by **20% by 2030**
- Phasing out of the need for new petrol and diesel cars and vans by **2030**
- Removing petrol and diesel cars from the public sector fleet by **2025**
- Supporting a full transition to zero emission medium and heavy-duty vehicles by **2040**

Public EV Charging

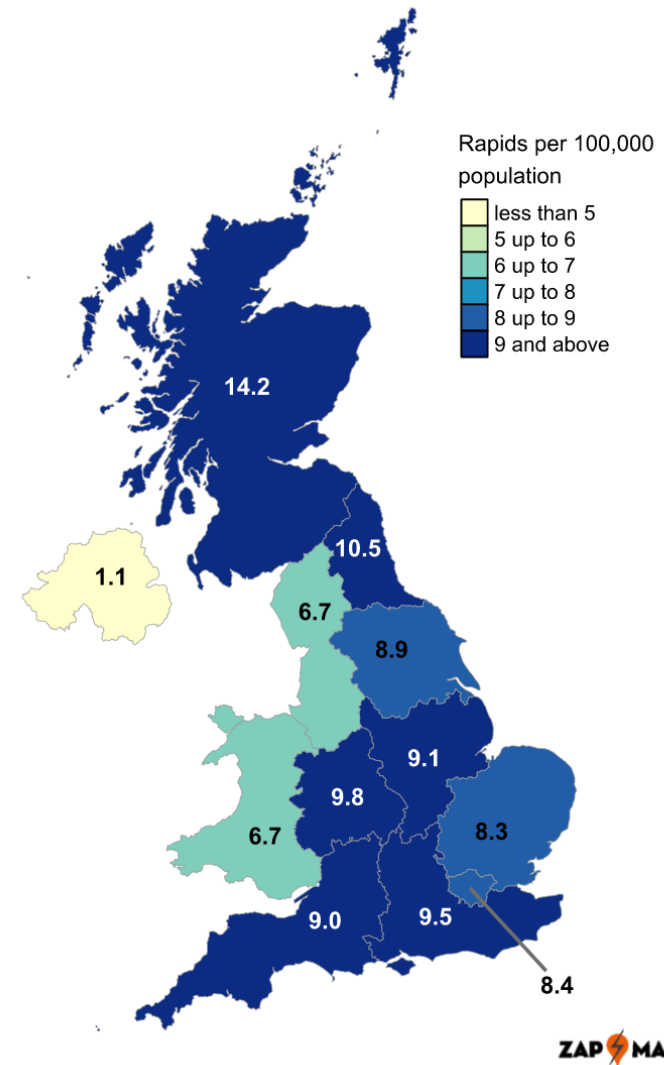
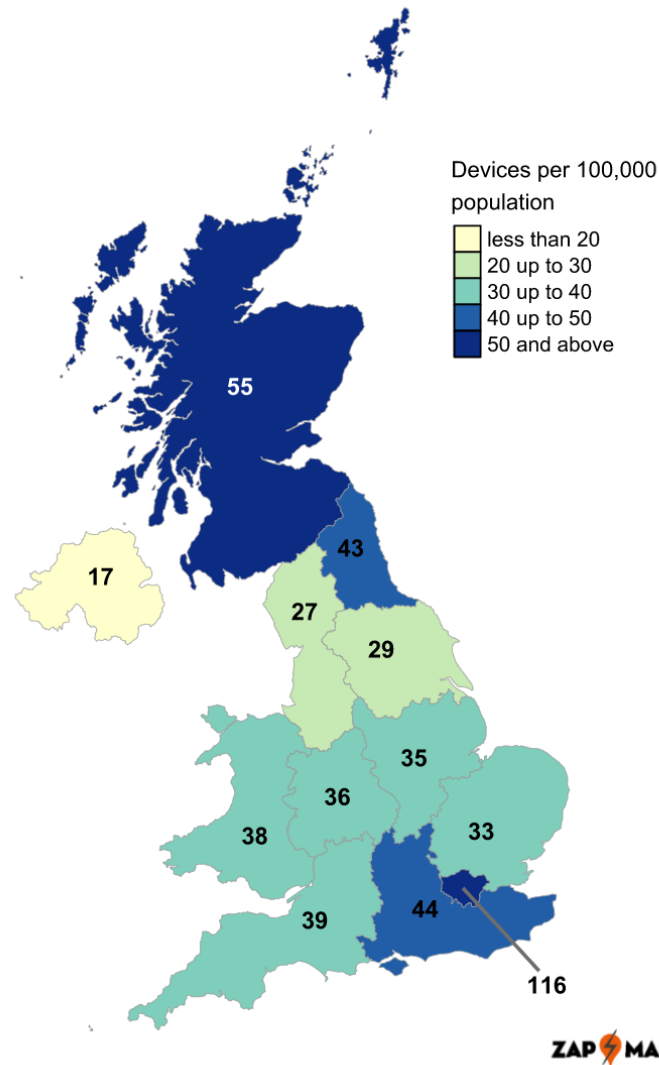
A close-up photograph of a blue electric vehicle (EV) being charged at a public station. An orange charging cable is plugged into the car's charging port. The background shows a blurred public charging station and a person walking in the distance.

Draft Vision for Scotland's EV public charging network

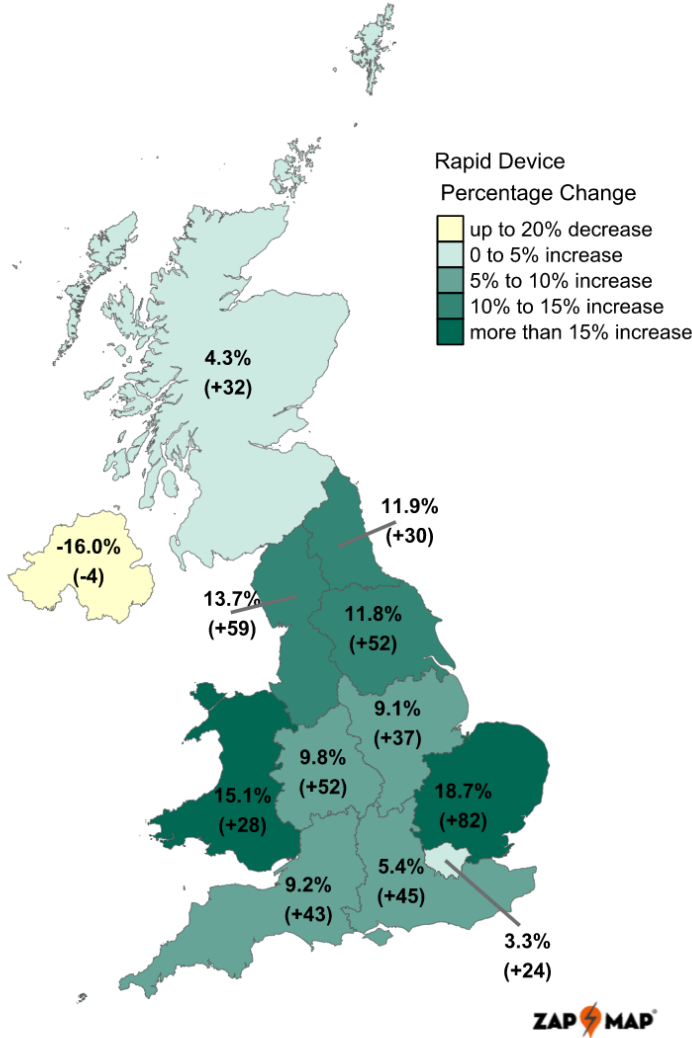
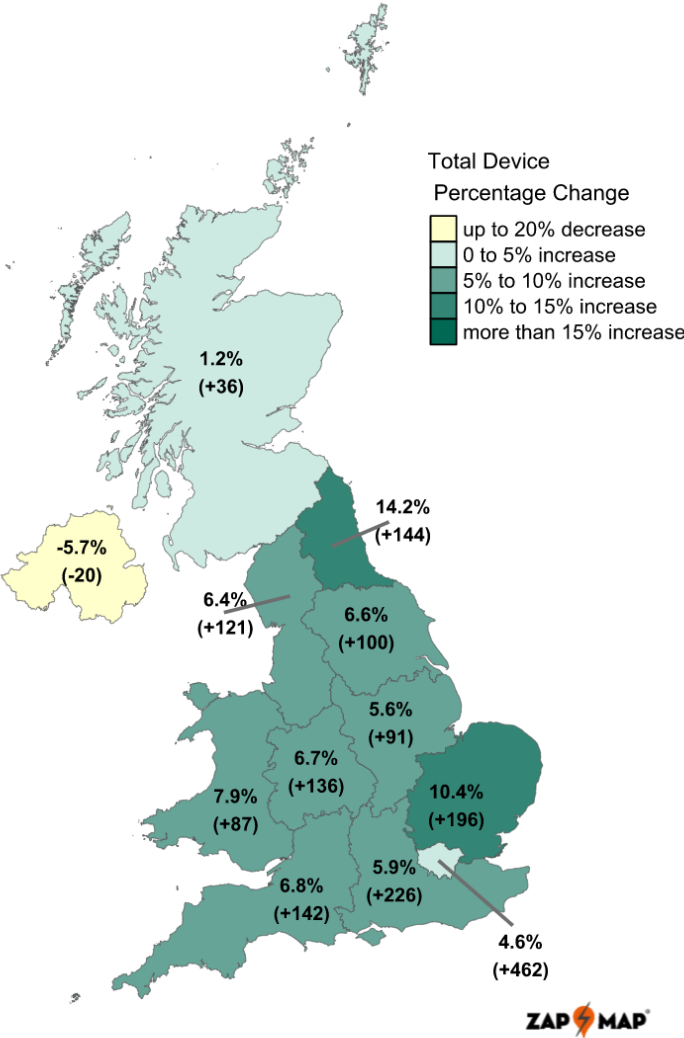
- A well-designed & comprehensive network
- A network that works for everyone.
- Attract private sector investment.
- Powered by clean, renewable energy
- Benefits from advancements in energy storage, smart tariffs & network design.
- First choice wherever possible is active & public transport.



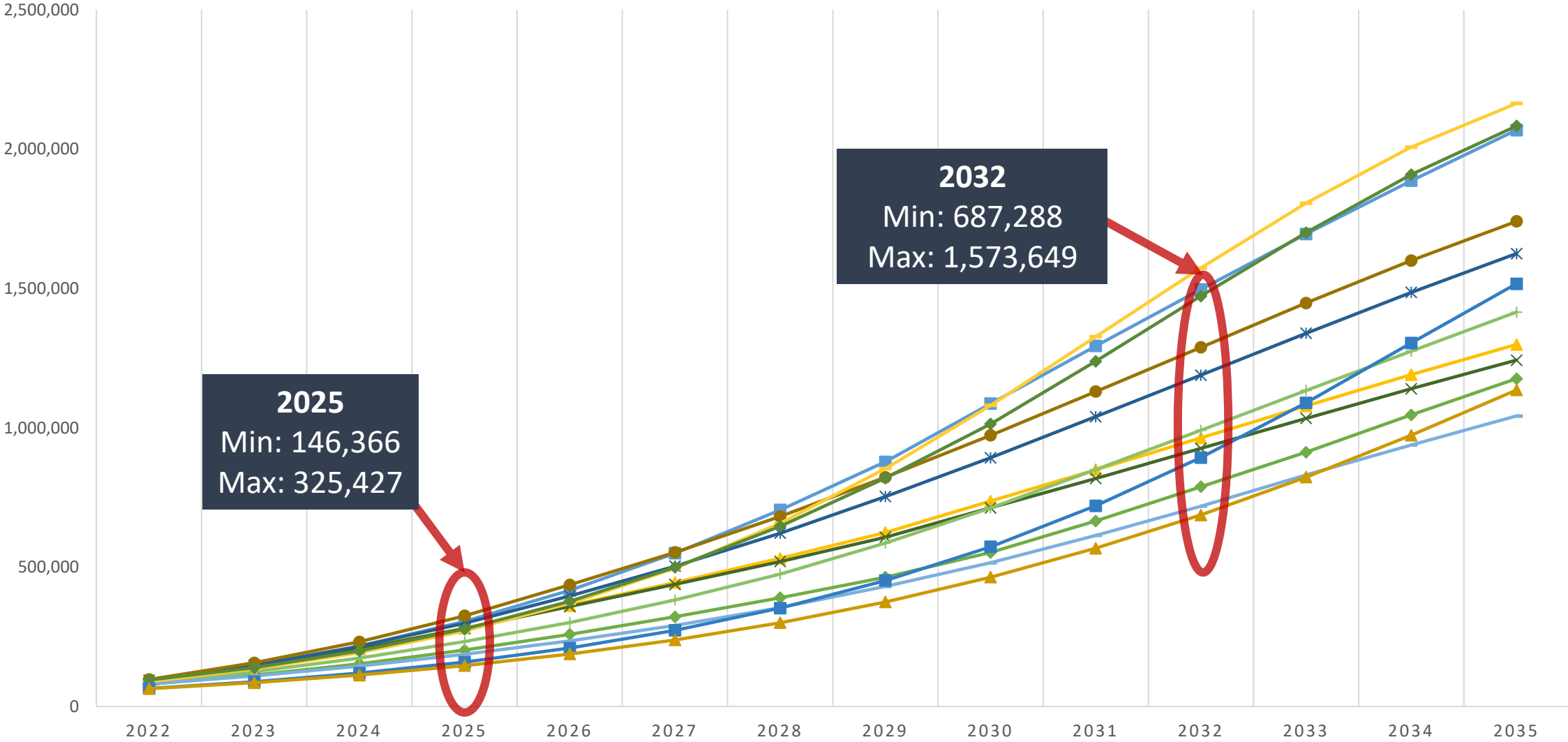
Current Public EV Charging Infrastructure



Growth in Public EV Charging Infrastructure



Plug-in Car Forecasts - Scotland



Why a new EV infrastructure programme?

- **Pace & scale** of delivery to increase to meet demand.
- **Public funded model unsustainable.**
- Owning, operating & replacing **ageing assets.**
- Opportunities to **leverage private capital.**
- The need to **introduce tariffs.**
- Supporting a **Just Transition.**

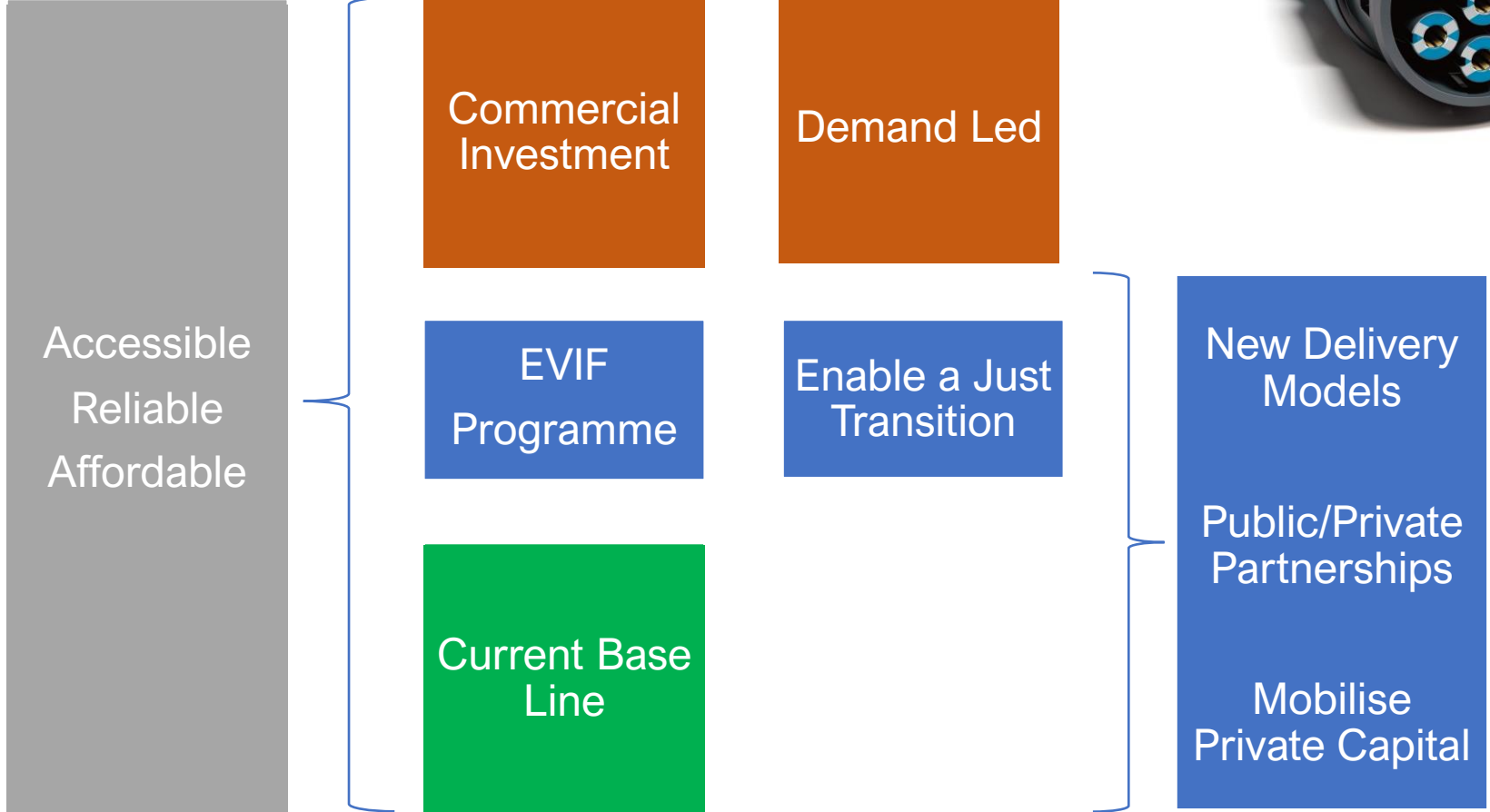


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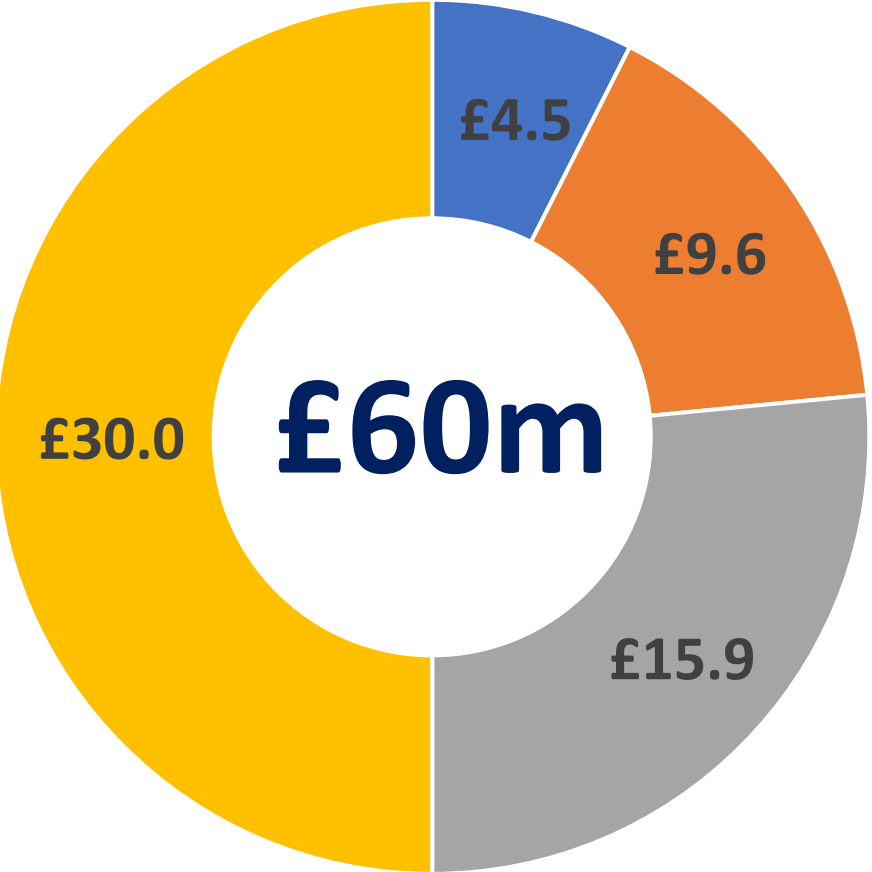


Electric Vehicle Charging
Infrastructure Report
July 2021

Electric Vehicle Infrastructure Fund Outcomes & Priorities



Electric Vehicle Infrastructure Fund Four Year Funding Programme



- Local Strategies & Procurement (£140k per authority)
- Minimum LA Capital Funding (£300k per authority)
- Needs Based Capital Allocation
- Private Capital Mobilised

EV Infrastructure Fund – Key Messages



- Collaborative Planning
- Aggregation of Demand
- Tariffs in place for all local authority retained EVCPs
- Project Funding informed by Strategy & Expansion Plans
- Enable investment where private investment on its own is not viable
- Evidence opportunities to mobilise private sector investment
- ChargePlace Scotland – No central funding beyond current contract
- No new top-ups to ORCS funding from April 22

Fleet Charging Infrastructure



Fleet Charging Infrastructure

Public Fleet



2020 Position (being refreshed):

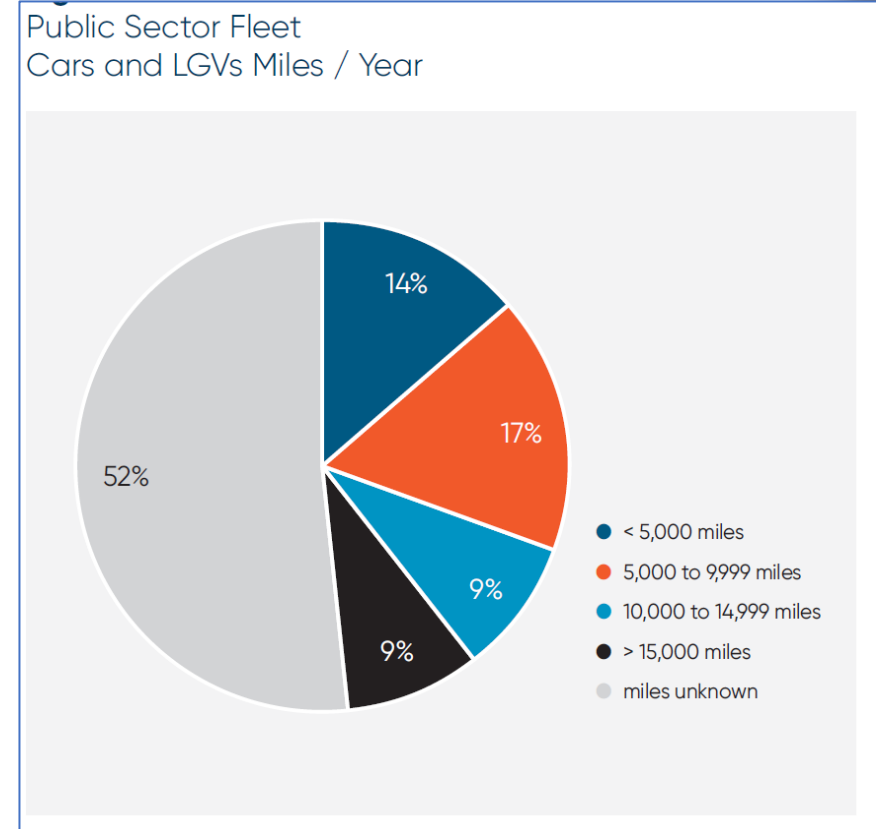
- Over 60 public bodies
- Around 29,000 vehicles (c.57% LA, 17% Health)
- Around 22,000 vehicles – Cars or LGVs
- c. 57% in local authorities, 17% in health boards

Public Sector Fleet Utilisation:

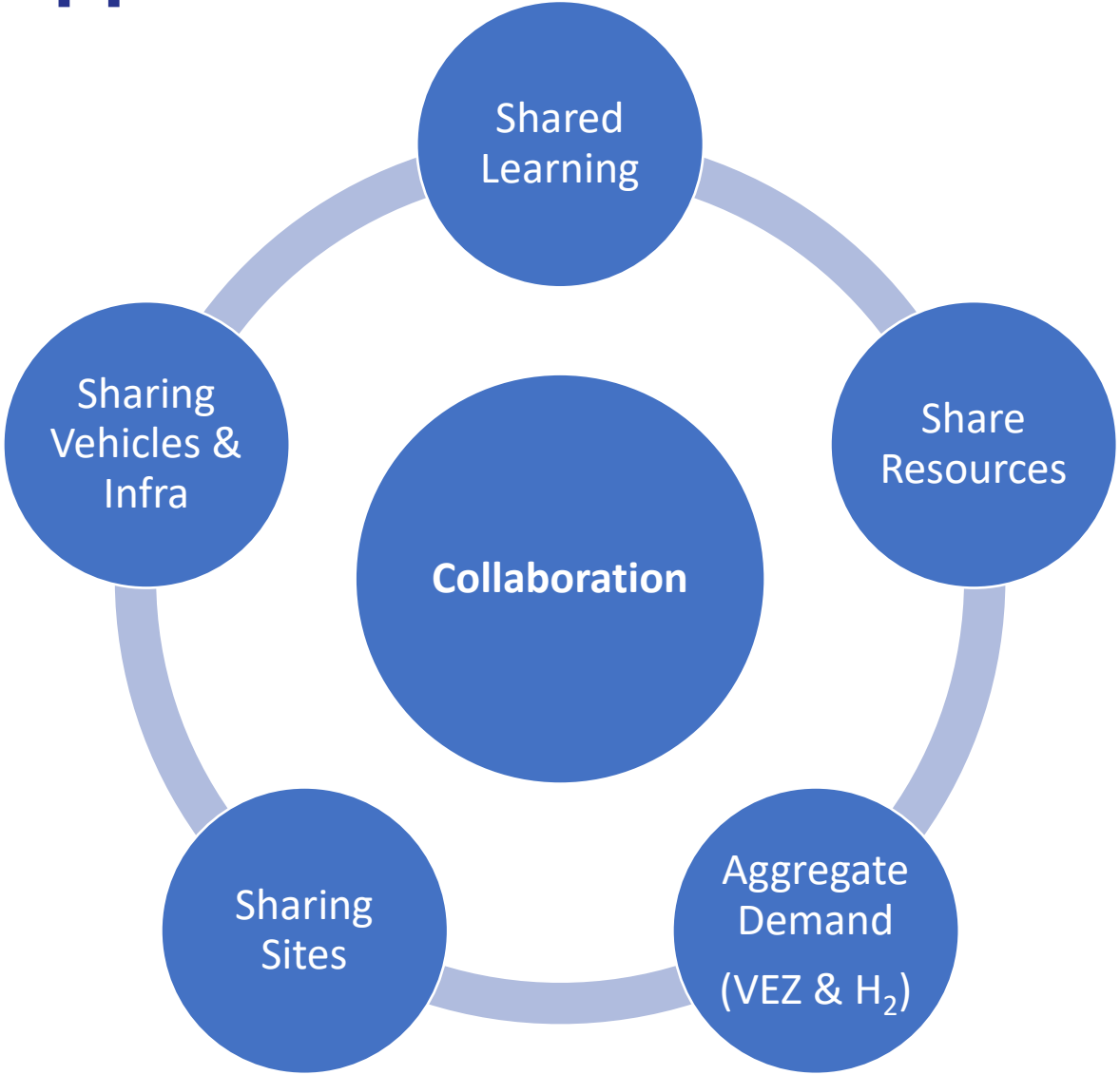
- Around 50% - annual mileage unknown
- Around 30% - annual mileage < 10,000

Data Refresh

- Informing future delivery models

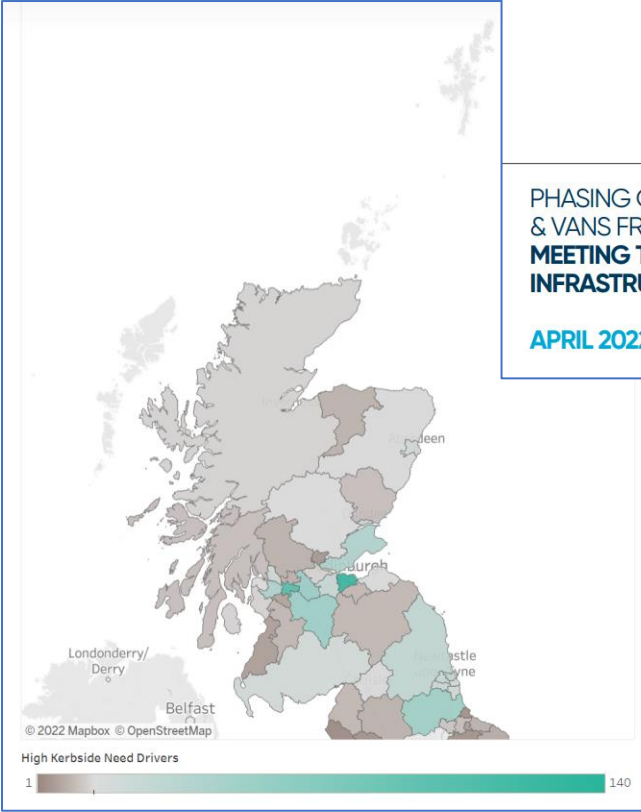


Fleet Charging Infrastructure Opportunities via Collaboration



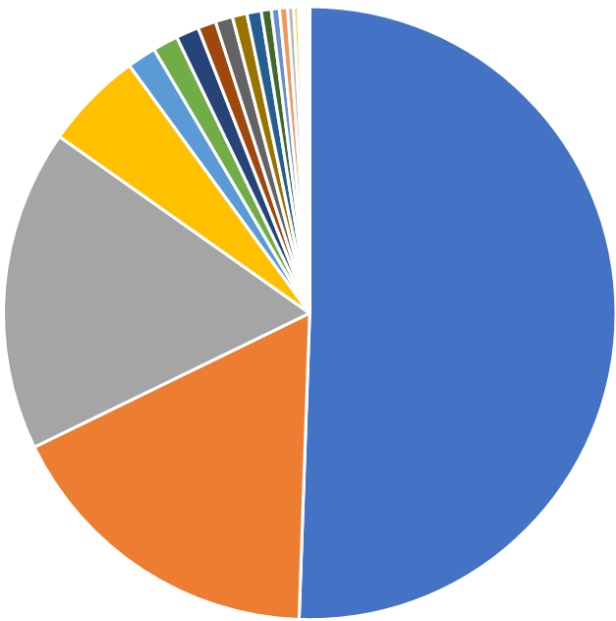
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PHASING OUT PETROL AND DIESEL CARS & VANS FROM THE PUBLIC SECTOR FLEET
MEETING THE ELECTRIC VEHICLE INFRASTRUCTURE CHALLENGE
 APRIL 2022



Source – Association of Fleet Professionals

Fleet Charging Infrastructure Opportunities via Collaboration



3 Nr > 1000 Vehicles
 4 Nr 100 to 500 Vehicles
 11 Nr 10 to 100 Vehicles
 8 Nr < 10 Vehicles

Fleet Charging Infrastructure Funding & Financing Options



Grants:

- OZEV – limited & very targeted
- Transport Scotland – Switched on Fleets –
 - *From 2021 focus on infrastructure and larger heavy duty & specialist vehicles*
 - *Transitioning – from Funding to Financing*

Borrowing:

- Prudential Works Loan Board
- UK Infrastructure Bank – Private and Local Authority Lending
- Bonds – Community Municipal Investments

Leasing:

- Charging as a Service – Developing Market
- IFRS16

Fleet Charging Infrastructure Capacity Building

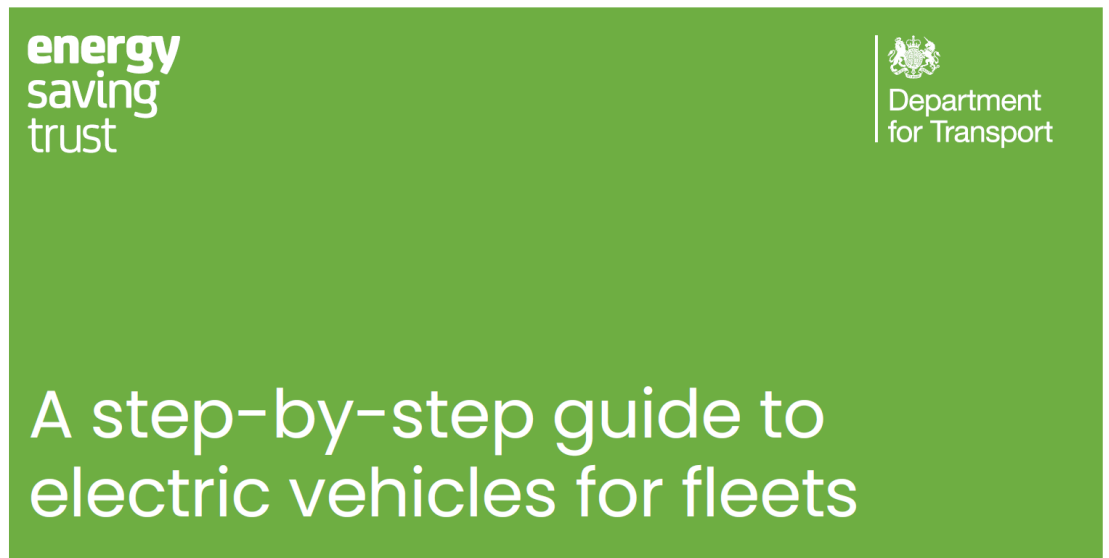
Online Guidance & Toolkits

Thinks to Think About:

- Demand Profile
- Optimising Connections
- Vehicle Types & Usage Patterns
- Charging Requirements
- Capacity Assessment
- Driver Engagement and Training

Options:

- Load management
- Smart Charging
- Alternative generation and storage



Fleet Charging Infrastructure

Fleet Infrastructure Pathfinders



Objectives:

- Identify opportunities for **fleet rationalisation**
- Identify opportunities for **collaboration and demand aggregation**
- Test the efficacy of **alternative finding and financing options**

Outcomes:

- **Accelerate** the rate of public sector **fleet decarbonisation**
- **More targeted grant funding** for vehicles and infrastructure



Scotland – Transport & Mechanical Advisory Group

Delivering Scotland's Charging Infrastructure

Q & A



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