



Coventry

City of Culture... and Innovation

Local Authority EV Charging Infrastructure Forum- Monday 17th October 2022

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Strategic context

	Organisations	Environmental targets	Key strategies
International	Various Governments	<ul style="list-style-type: none"> Limit global temperature rises to 2 degrees Celsius (v pre-industrial levels) 	<ul style="list-style-type: none"> Paris Agreement UN Sustainable Development Goals
National	Department for Transport	<ul style="list-style-type: none"> Net zero by 2050 50% of city centre journeys to be walking or cycling by 2030 	<ul style="list-style-type: none"> Decarbonising Transport Gear Change (Walking and Cycling strategy) Bus Back Better (Bus strategy) 10 Point Plan for a Green Industrial Revolution
Regional	Transport for West Midlands/ Midlands Connect	<ul style="list-style-type: none"> Net zero by 2041 	<ul style="list-style-type: none"> #WM2041 (Climate Change Strategy) West Midlands Local Transport Plan (to be finalised Summer 2022)
Local	Coventry City Council	To be confirmed – but must be at least as ambitious as existing regional/national targets	<ul style="list-style-type: none"> Climate Change Strategy (in development) Transport Strategy (to be finalised Summer 2022)

Coventry's emerging Transport Strategy

- Built around four overarching objectives – informed by existing international, national and regional strategies
- Achieving these requires a significant change to the way we travel:
 - Away from car dependency – draft strategy is explicit that in future most people will not need to own a car to access the services they need
 - Towards walking, cycling and public transport first
- Main areas of activity:
 - 'Step change' in the city's public transport system (including Very Light Rail)
 - Much better infrastructure for walking and cycling
 - Targeted investment in the road network (i.e. not aimed at simply creating capacity for more cars)
 - Widespread electrification (of public and private transport)
 - Changes to the way we transport freight
 - Encouraging 'behaviour change'

1. Supporting the city's economic recovery and enabling long-term growth

2. Delivering a sustainable, low carbon transport system

3. Ensuring equality of opportunity

4. Maximising health and wellbeing

The Electric City

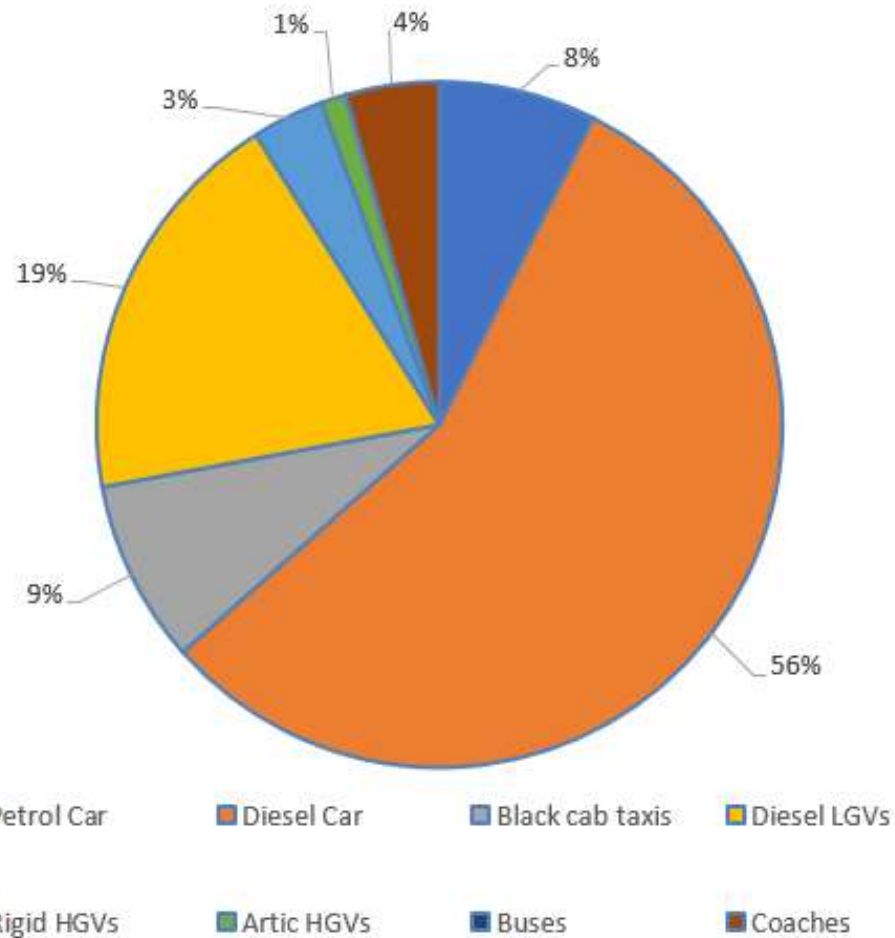
Why Electrify Coventry?

- Climate Change Strategy
- Coventry Local Air Quality Action Plan
- Boost jobs and growth in local economy
- Zero carbon transport system
 - Very Light Rail
 - Electric buses
 - Electric taxis
 - Electric vans
 - Public EV charging network
 - Plug in Charging
 - Static Charging
 - Pantograph Charging and
 - Dynamic Charging of Vehicle

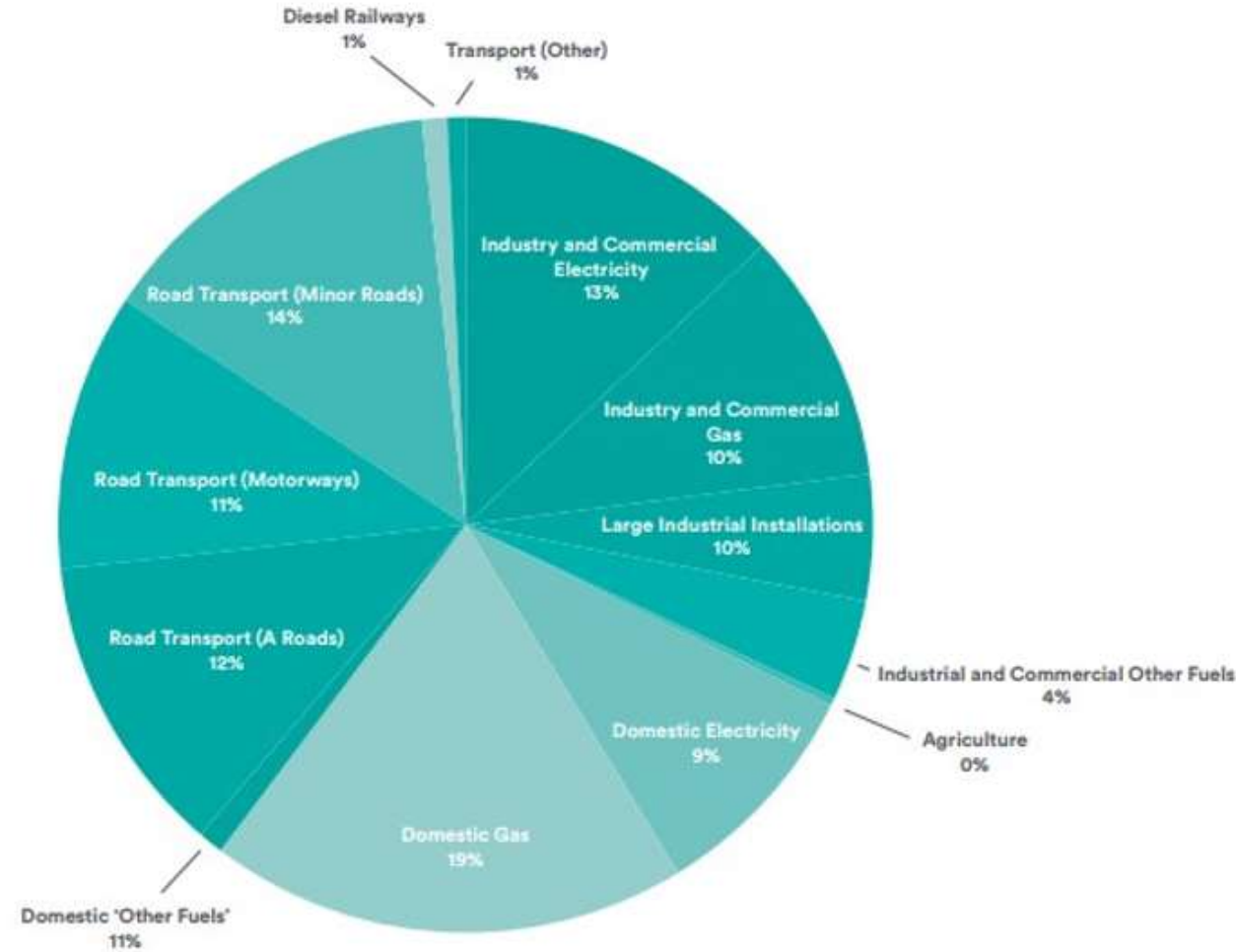


The challenge for Coventry

NO2 by Source - SW quadrant ring road



2016 CO₂ Emissions (21 MtCO₂) for WMCA area



Reducing our emissions across the City



'Try before you buy' – electric fleet

607 charge points operational & 155 currently being installed



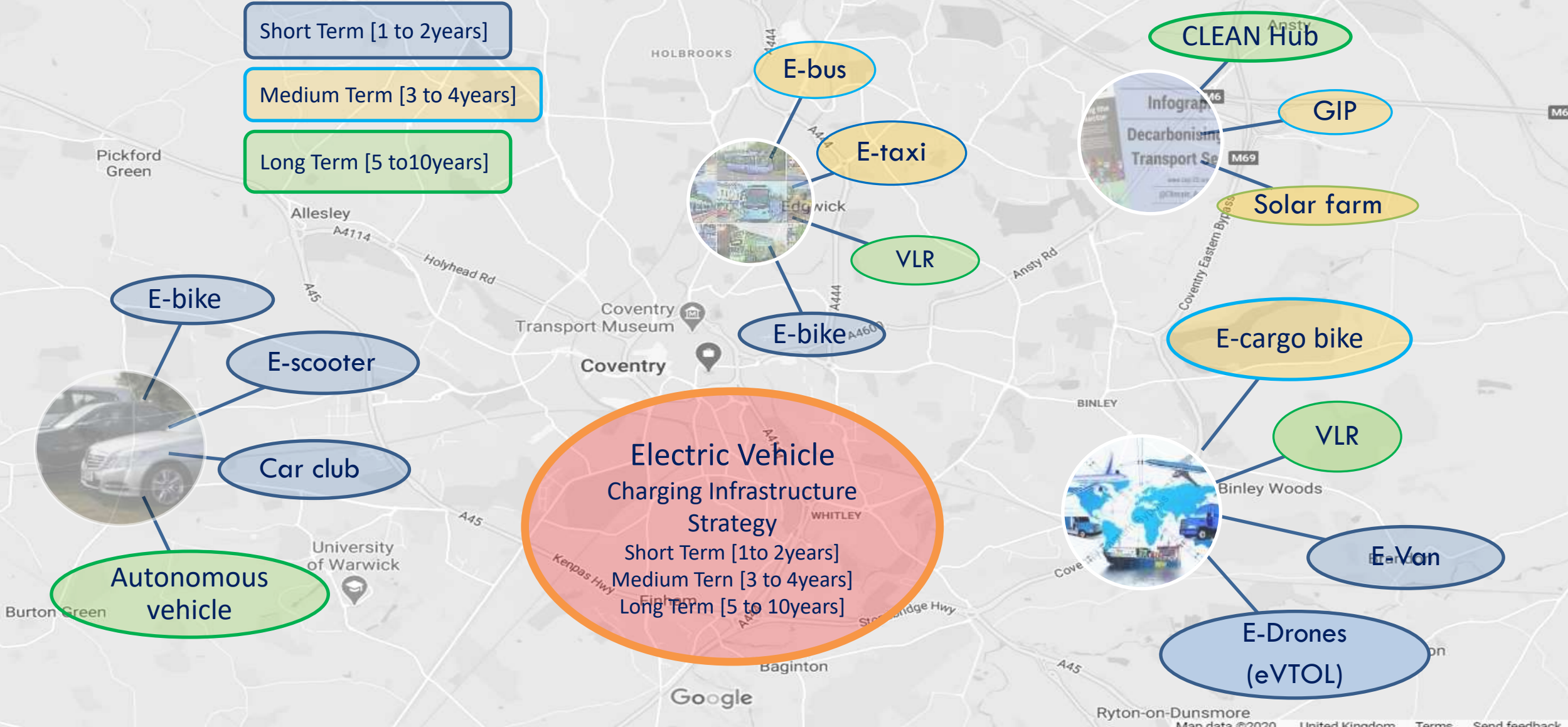
Electric Bus City



Urban Air-Port & Coventry

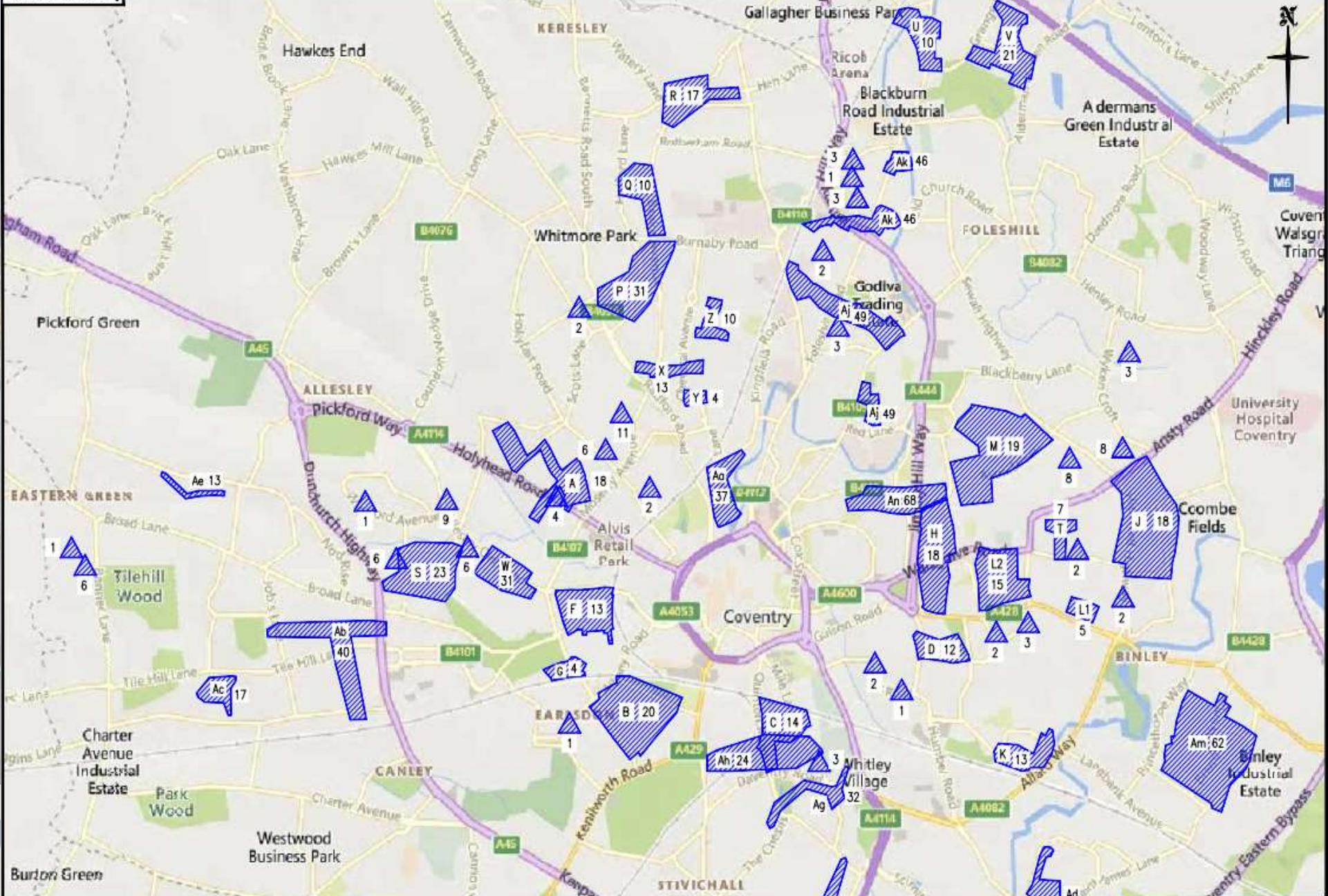
Developing an EV culture

- Central Government Funding
- Private sector investment
- Holistic approach of extending EV charging infrastructure to the wider city
- Access to Charge points in the City of Coventry for Electric Taxi's [Hackney carriages]
- Promote increase use of EV cars through workplace charging, home charging and onstreet charging
- Improve Air Quality
- Future Proofing for Emerging Technology
- Combination of VLR, all electric buses and electric taxi's making a fully electric public transport system in Coventry from 2025






EVC Eco System

Do Not Scale This Drawing



LEGEND

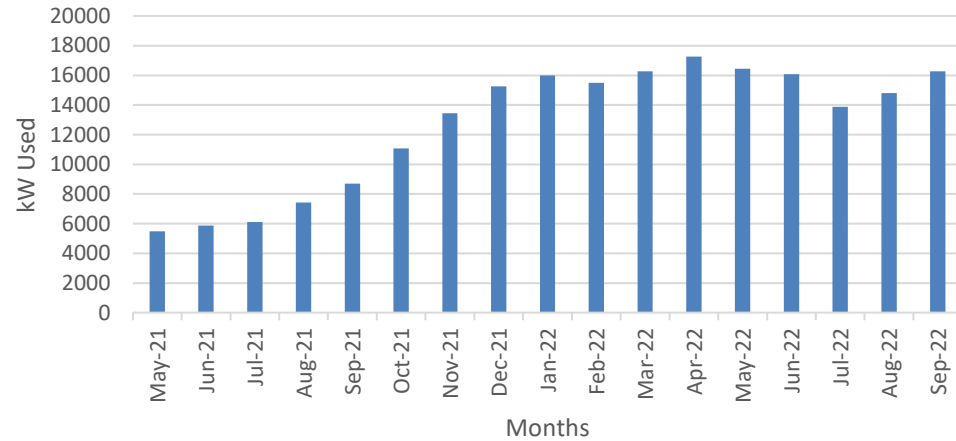
-  CHARGE POINT ZONES
-  ADDITIONAL NON-ZONE CHARGE POINTS
-  NO. OF CHARGE POINTS



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Onstreet Residential Chargepoints

Home Charging

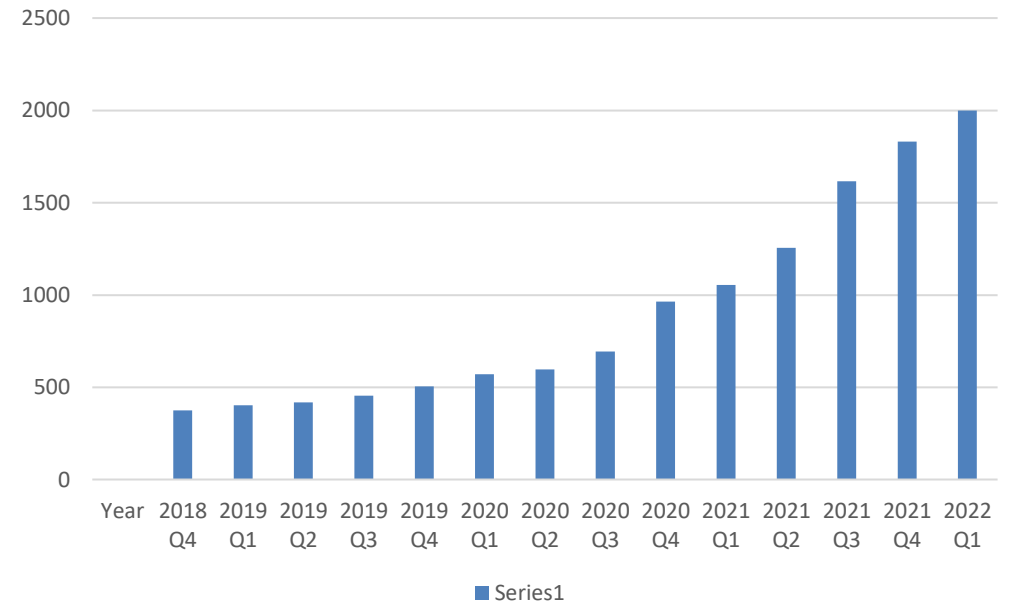


Rapid Charger Usage

Opportunity Charging



Plug-in-cars Coventry



Ultra-fast Charging Hubs / Green Innovation Park

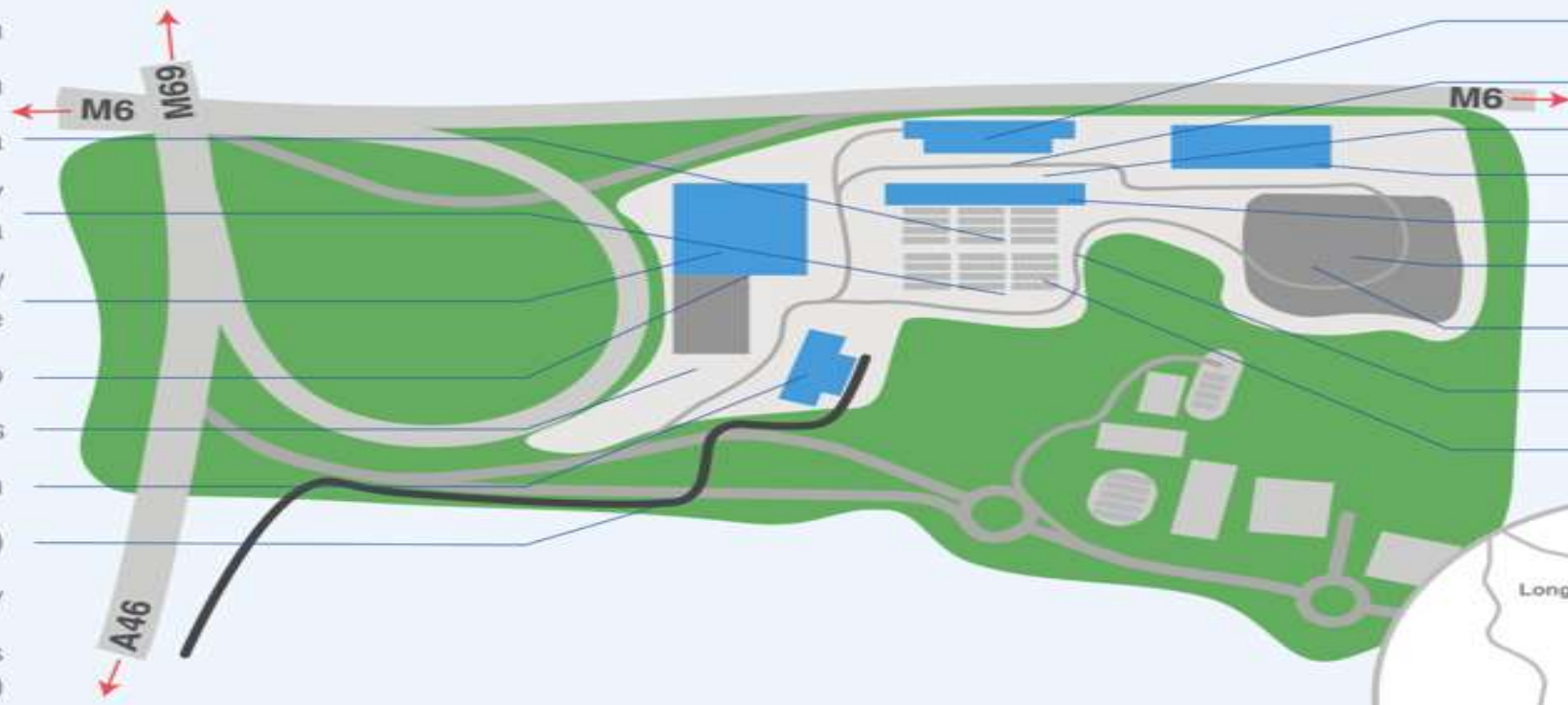
- Council working with partners to unleash the potential for ultra-fast charging hubs across Coventry.
- These state of the art facilities would provide volume charging facilities for all types of electric vehicles.
- Developing options for multi-fuel hubs including hydrogen and gas
- Opportunities for associated facilities and SME research hubs
- Energy generation and supply opportunities.



Coventry & Warwickshire City Linking Energy and Network Hub (CLEAN Hub)



- Wind Energy Generation
- Solar Energy Generation
- Park & Ride carpark area
- Low/high power EV charging carpark area
- Consolidation centre/last mile
- Parcel pickup
- E-scooters/e-bikes
- VLR station
- Very Light Rail (VLR)
- Cycle-highway
- Flying goods vehicles (drones)



- Electric bus charge park
- Electric shuttle bus
- Bus stop
- Innovation zone
- Retail area
- Multi-fuel hub
- Hydrogen fuel production
- Battery Storage
- Static wireless charging bays







EV - Future Works



CCC exploring 'car clubs' and 'lift-share'

Linked to future mobility pilot scheme which would allow people to trade in their older, polluting cars for mobility credits. Credits could be used on trains, buses, car clubs and bike hire.

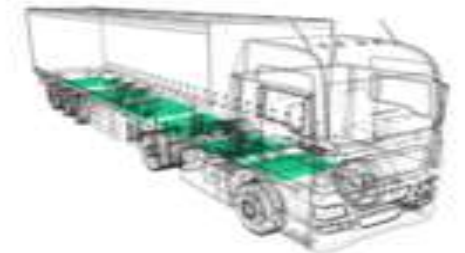
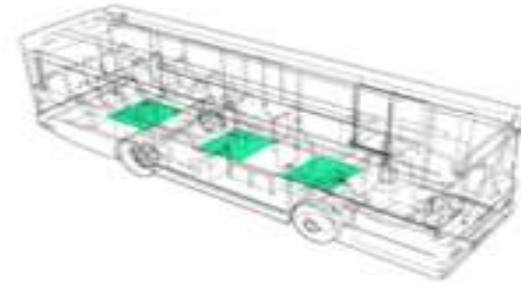
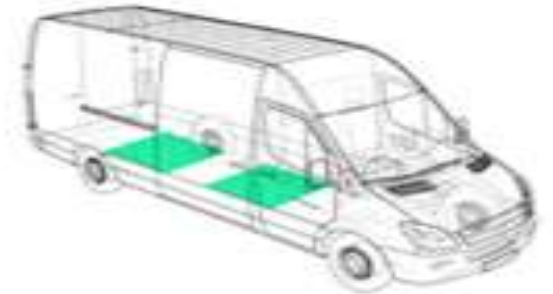
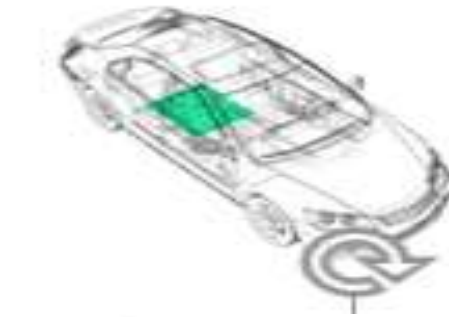
EV - Future Works

Dynamic Wireless Power Transfer technology, where Inductive loops are laid under the road surface

These loops are capable of charging a moving vehicle as it passes over them

Receivers are fitted underneath a vehicle which allows it to accept a charge as it drives over the inductive loops.

DynaCoV project feasibility study was completed in December 2021, a project funded by Western Power Distribution [WPD]. Next phase is to undertake a demonstrator project once the funding is secured.



Coventry: UK's first all-electric bus city

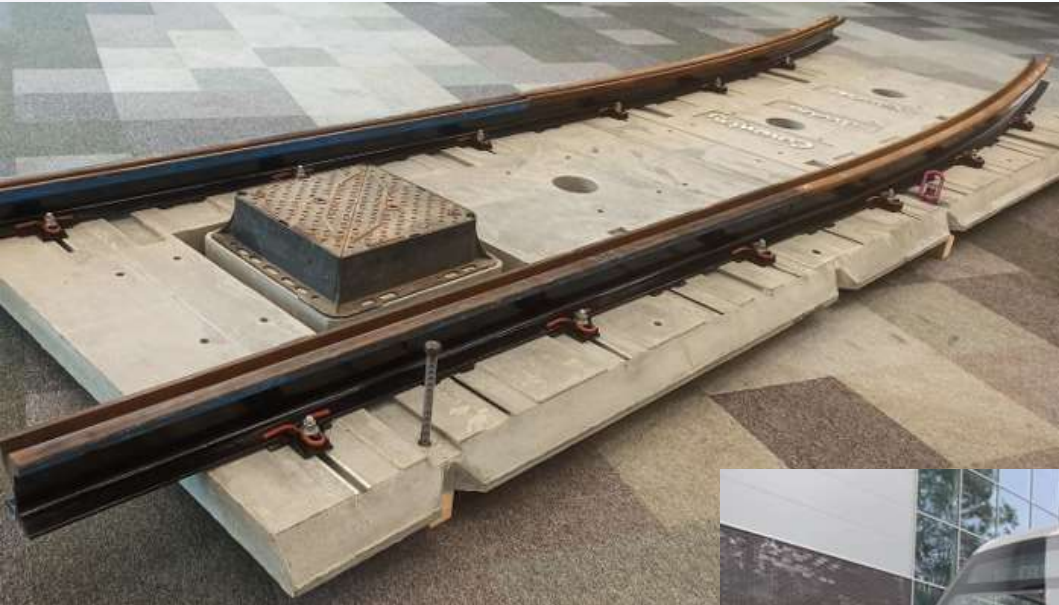
Coventry City Council is working with the West Midlands Combined Authority, the UK Government and National Express West Midlands on a pilot project to make Coventry the UK's first all-electric bus city.

Funding has been provided by the UK government, and Coventry City Council is working closely with National Express to ensure the necessary infrastructure is installed by 2025.

The West Midlands Combined Authority is also working closely with National Express on contractual and operational requirements.



Coventry Very Light Rail



CVLR Energy Requirements

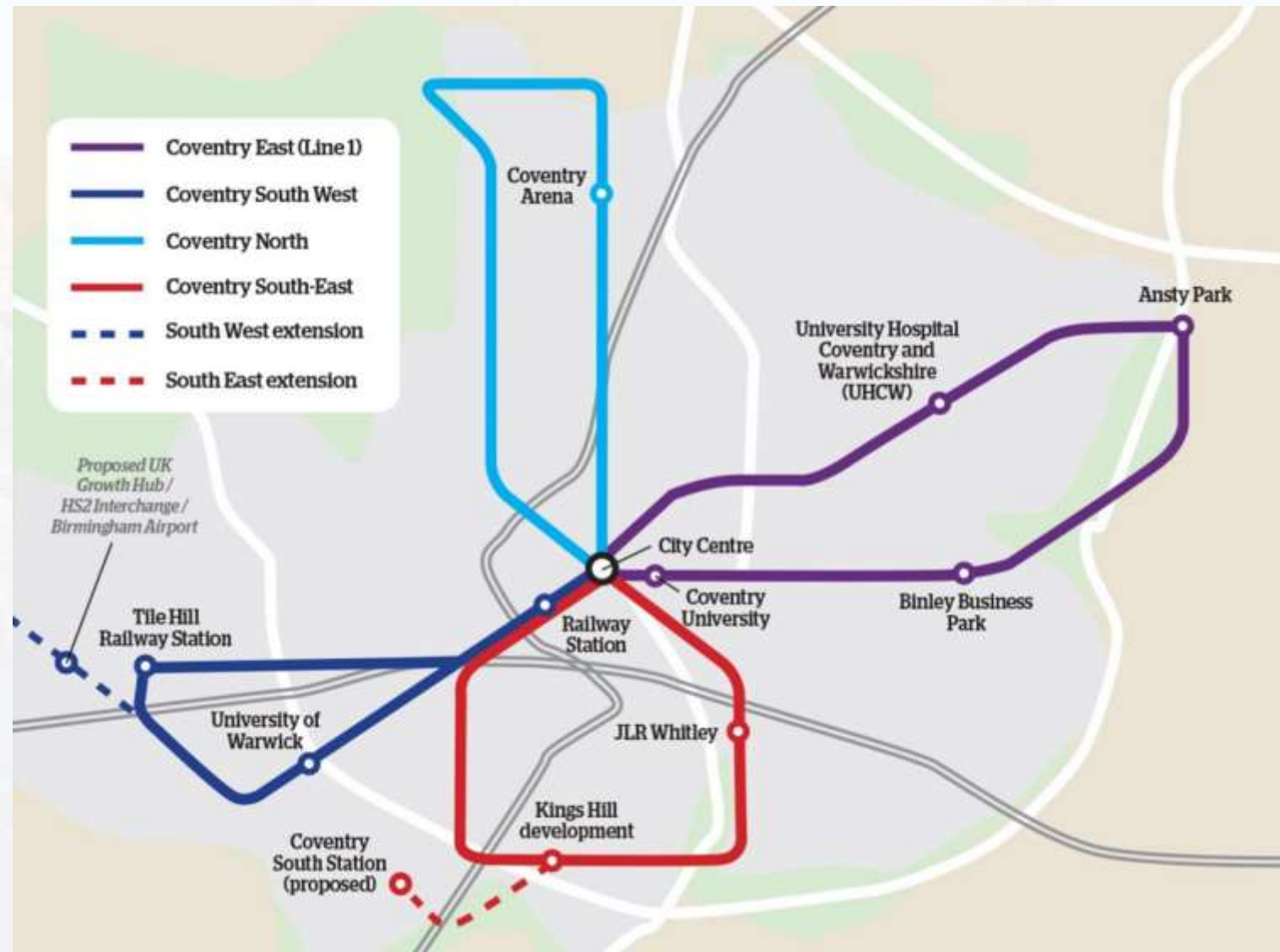
1. Rail Station to City Centre - Demonstrator (2024)

- Rail Station to City Centre
- Showcase Technology
- Operate Prototype Vehicle
- Twin track installation
- Stabling and charging in City

2. City Centre to UHCW (2027)

3. Network to connect city centre to strategic locations

4. HS2 connection



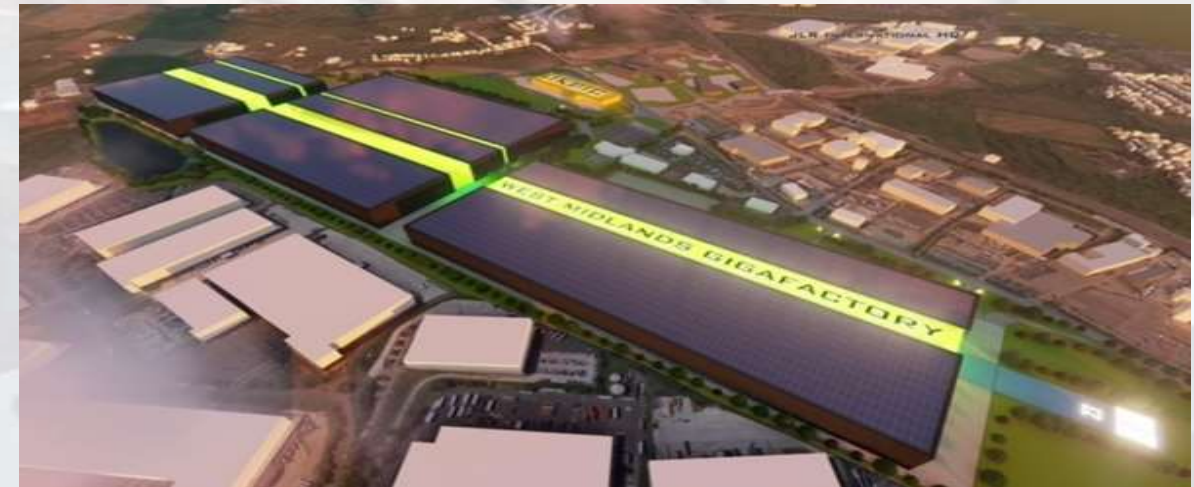
Future Cities Transport Mode



Battery production facilities to help EV transition

UK Battery Industrialisation Centre (UKBIC) The £130 million UK Battery Industrialisation Centre (UKBIC) is a pioneering concept in the race to develop battery technology for the transition to a greener future. The unique facility provides the missing link between battery technology and successful mass production. Based in Coventry, the publicly-funded battery product development facility welcomes manufacturers, entrepreneurs, researchers and educators.

Gigafactory Coventry Airport Coventry Airport has been chosen as the preferred site across the West Midlands for a new Gigafactory facility. The recently submitted plans would deliver 5.7m sq ft of space for both battery production and recycling, would add £434m in GVA to the regional economy each year,





Thank you

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