



LCVPP

Low Carbon Vehicle Public Procurement programme - LCVPP

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PROGRAMME OBJECTIVES



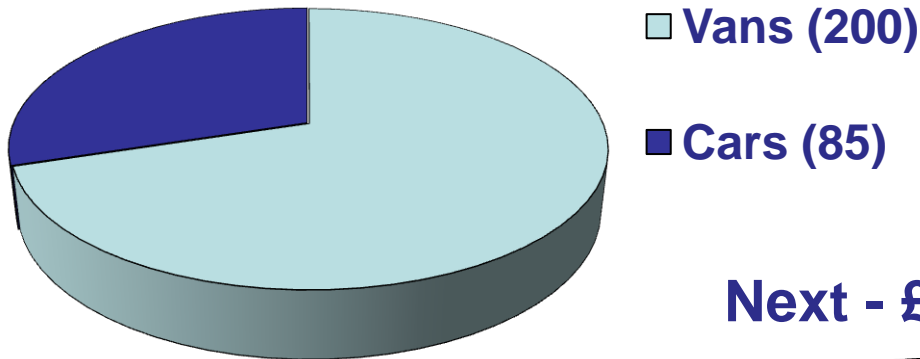
Funded by OLEV (UK Government - Office for Low Emission Vehicles).

- Demand signal - use the public sector to create one for low carbon vehicles.
- Foster a culture change in public sector procurement.
 - Sustainability and ability to impact the market.
- Manage risk - for the public fleets.
- Promote both innovation and unit cost reduction.
- Test and validation of lower carbon vehicles in real-world use.

FUNDING

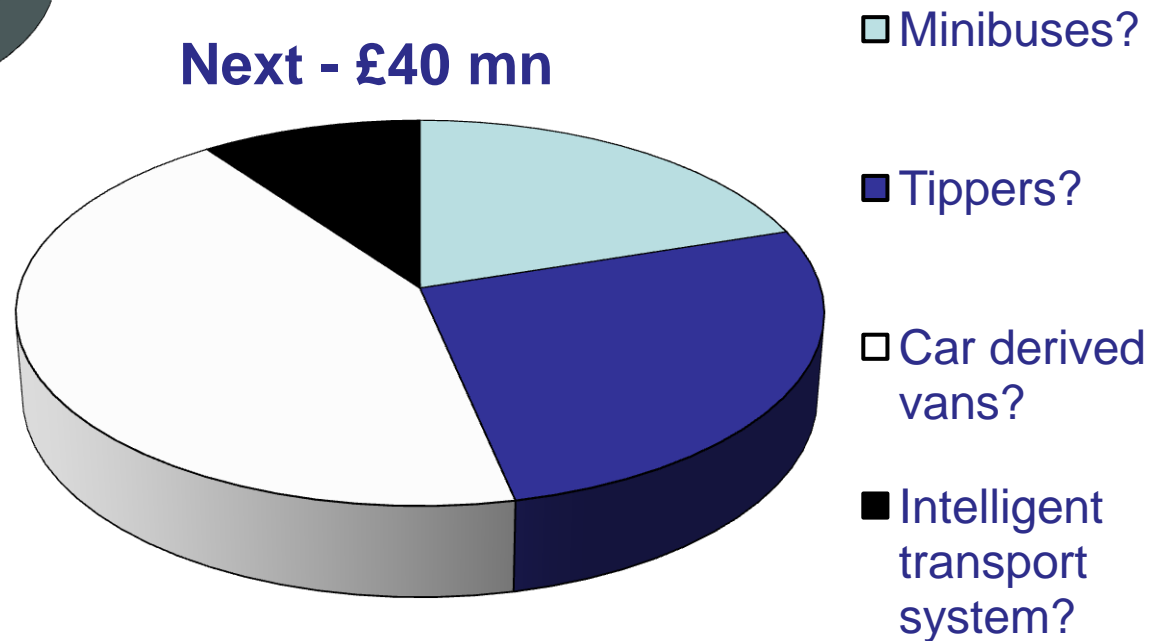


Current - £10 mn



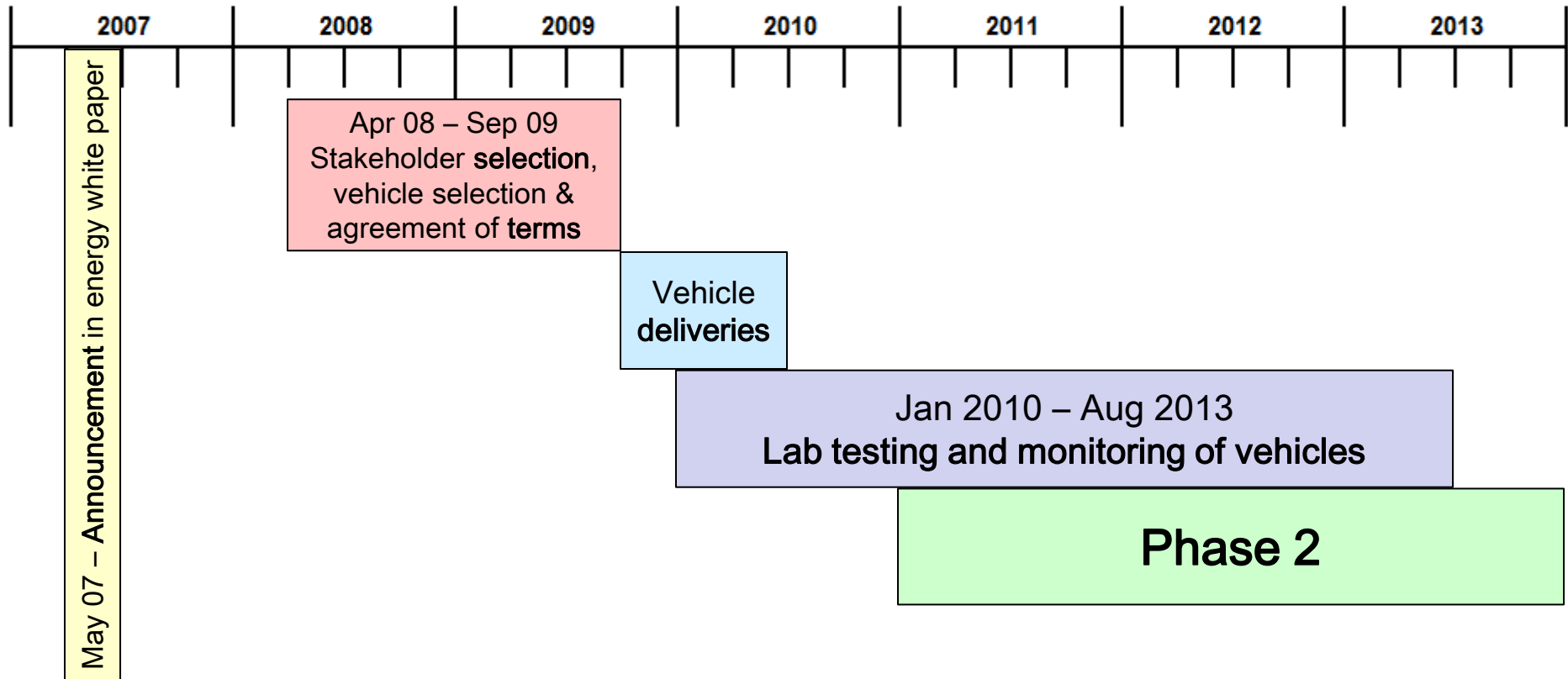
Meeting all of the additional costs for public sector organisations in procuring lower carbon vehicles.

Next - £40 mn



Phase 2 begins when early Phase 1 results prove successful. It will be a wider roll out.

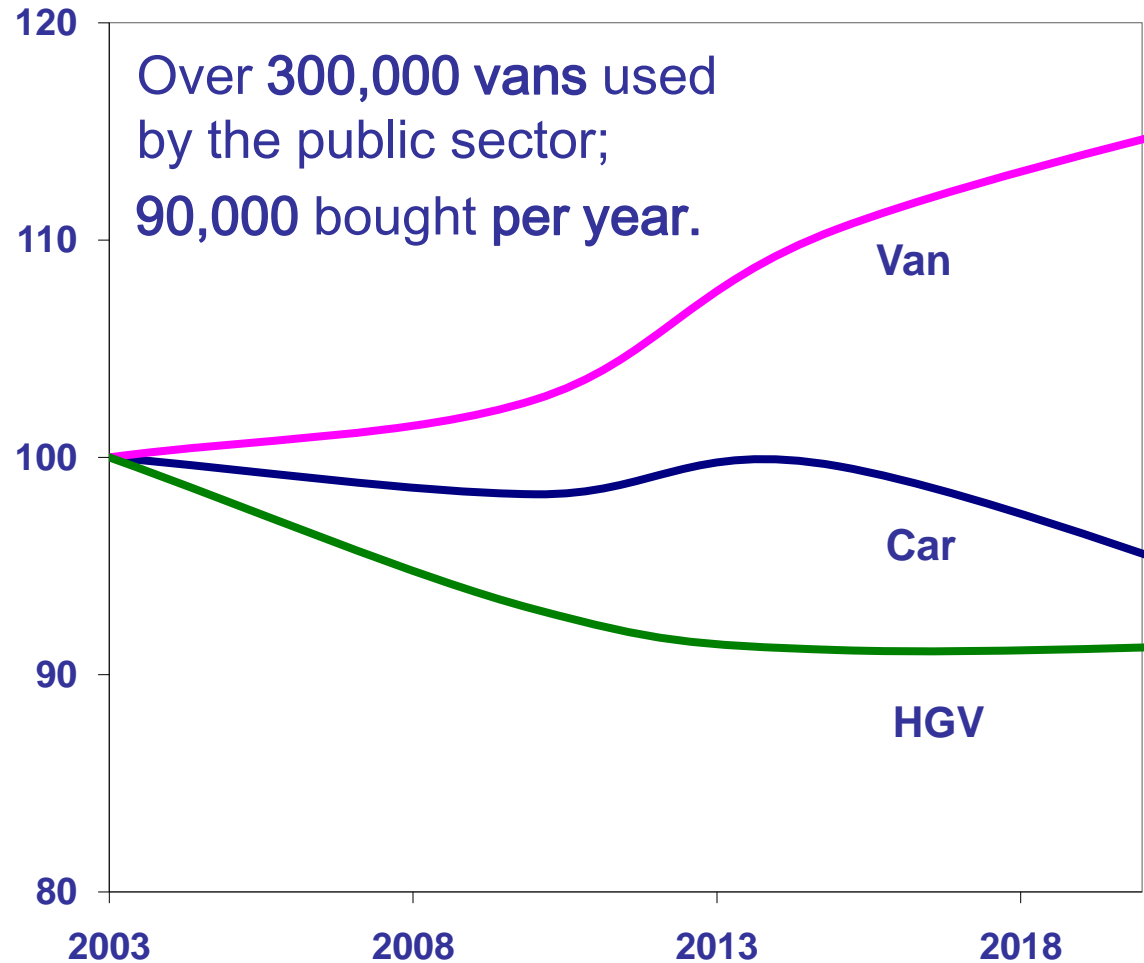
TIMING



FIRST TARGET GROUP – LARGE PANEL VANS



- 41% rise in van traffic.
- Van journeys are generally longer.
- Van emissions projected to rise.
- Vans fall outside many other policy measures.



Forecast CO2 emissions by vehicle type

PROCUREMENT SPECIFICATION



	All-Electric Vans	Low Carbon Vans
Payload volume	> 6m ³ (SAE method)	> 6m ³ (SAE method)
Payload	> 800 kg	> 1100 kg
Gross vehicle mass	< 5500 kg	< 3500 kg
Acceleration	0-50 mph < 40 sec (fully laden)	0-60mph < 25 sec (fully laden)
Maximum speed	> 50 mph at zero grade (fully laden)	> 60 mph at zero grade (fully laden)
Range	> 95 miles at zero grade (fully laden)	N/A
Gradeability	achieve a 15% grade (fully laden)	achieve a 25% grade (fully laden)
Charge time	< 10 hours	N/A
CO₂ emissions reduction	N/A	> 10% (NEDC cycle)

STAKEHOLDERS AND MANUFACTURERS

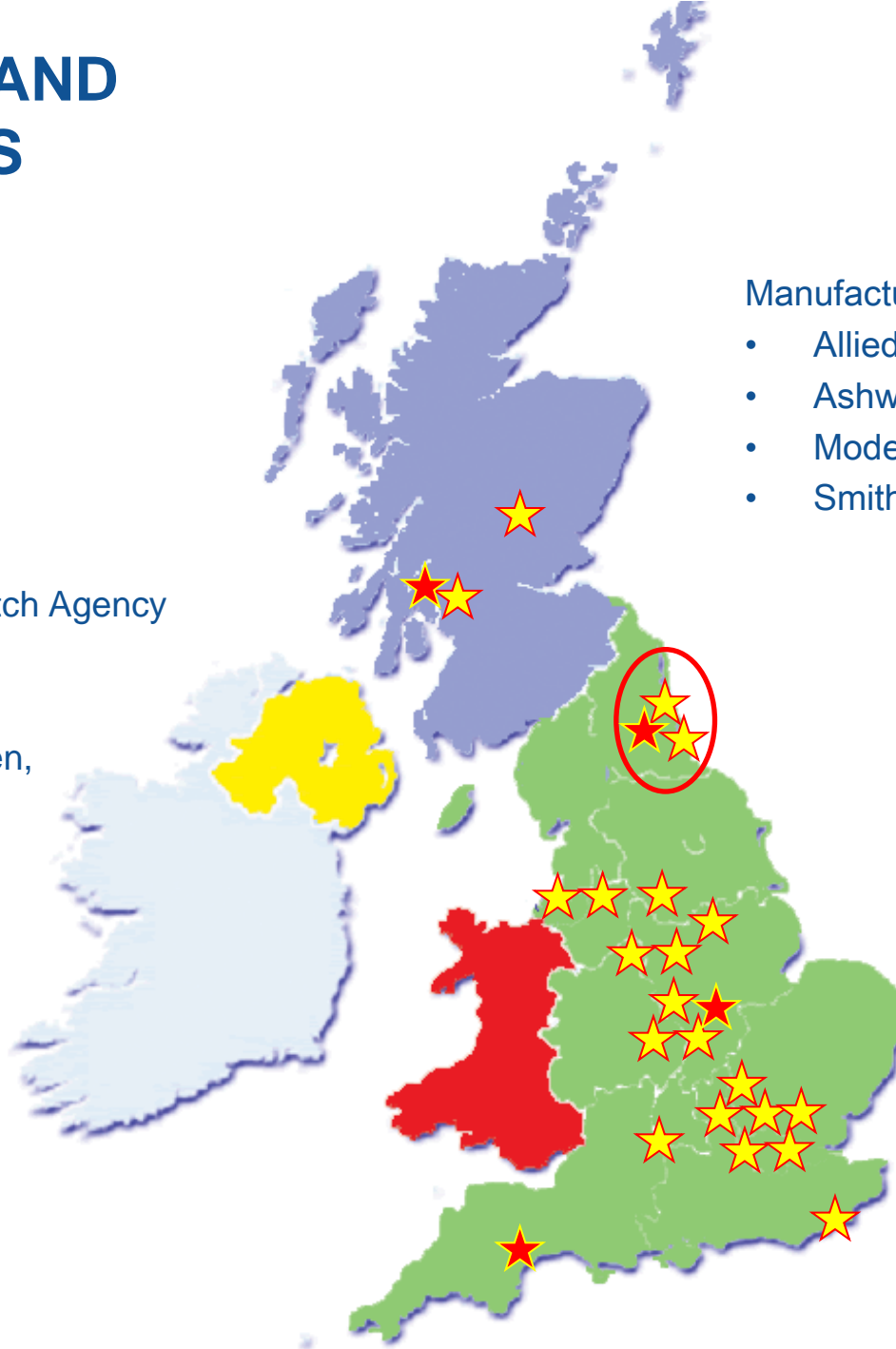


Initial stakeholders: ★

- Coventry City Council
- Coventry University
- Derbyshire County Council
- Environment Agency
- Gateshead City Council
- Glasgow City Council
- Government Car and Dispatch Agency
- Leeds City Council
- Liverpool City Council
- London Boroughs of Camden, Hackney and Islington
- City of London
- Metropolitan Police Service
- Newcastle City Council
- Perth and Kinross Council
- Royal Mail
- Transport for London
- UK Borders Agency
- City of Wakefield Council
- University of Warwick

Manufacturers: ★

- Allied Electric
- Ashwoods
- Modec
- Smith Electric Vehicles



VEHICLES

- Allied Electric – electric Peugeot Expert Tepee MPV
 - Motor – 60 kW
 - Battery – 43 kWh LiFe



- Allied Electric – electric Peugeot Boxer van
 - Motor - 60kW
 - Battery - 62kWh LiFe

- Ashwoods diesel/electric Ford Transit
 - Assistance motor - 17 kW
 - Battery - 1.4 kWh LiFe



- Mitsubishi i-MiEV electric car
 - Motor - 47 kW
 - Battery – 16 kWh LiFe

- Smith Electric Vehicles Edison

- Motor - 64 kW
- Battery - 51 kWh LiFe



- Modtec

- Motor - 76 kW
- Battery - ZEBRA (molten sodium)



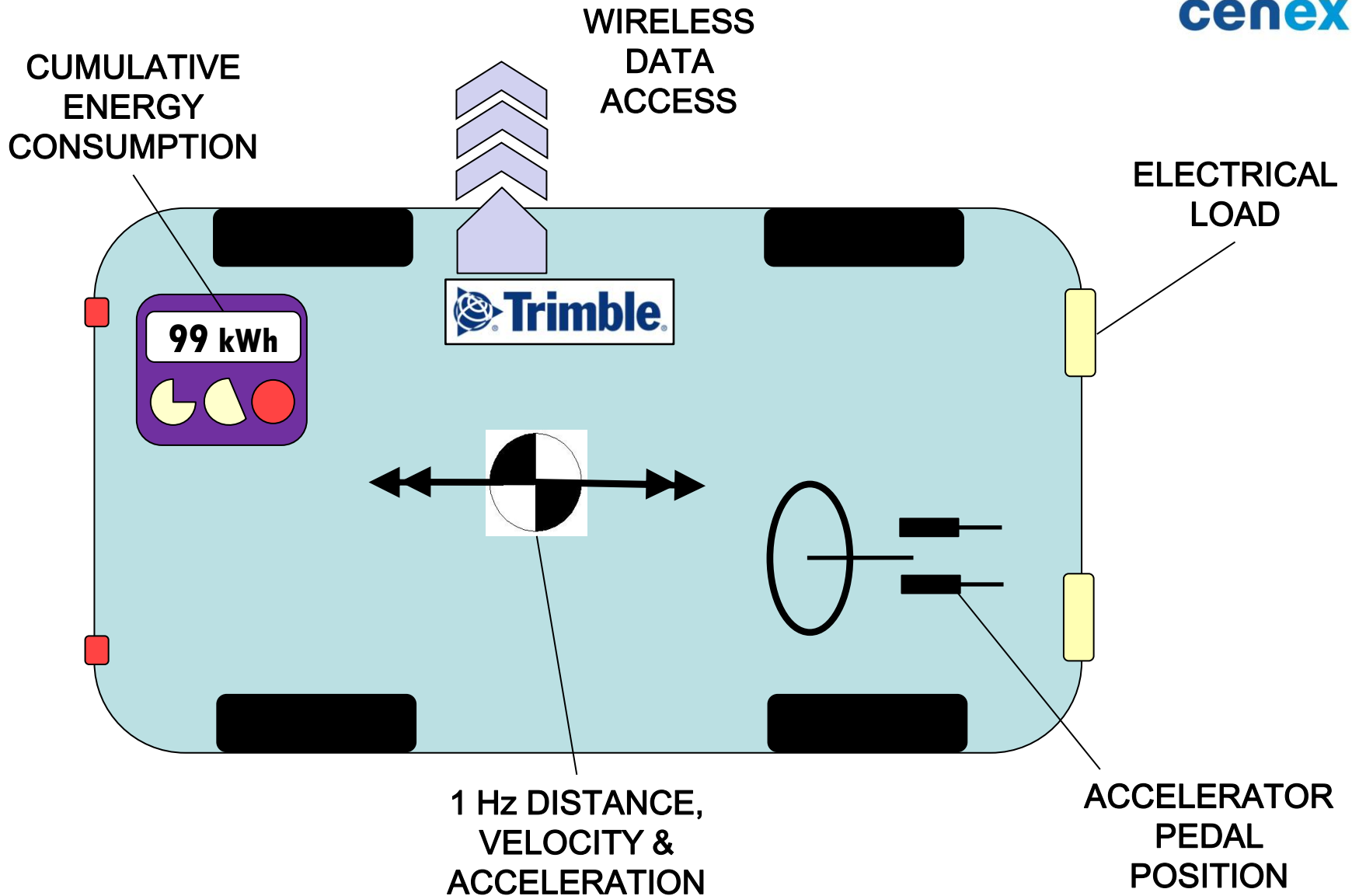
- Toyota Prius petrol/electric hybrid car with plug-in recharging
 - Motor – 59 kW
 - Battery – 5kWh LiFe

VEHICLE MONITORING



- Data gathered on vehicle use
 - how is vehicle used?
 - how to improve?
 - cost and environmental benefits?
- Log books
 - trip date, location, driver and mileage.
 - fuel added / electrical energy used in charging.
 - any pertinent notes relating to operation/weather.
- Telemetry and testing – see overleaf

VEHICLE MONITORING - TELEMETRY



VEHICLE MONITORING – TESTING



- Performance acceptance testing of vehicles at new, 6 months and 12 months, on MIRA test track and dyno.





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- Hybrid electric vehicles
 - Fuel consumption and CO₂ vs. standard vehicle.



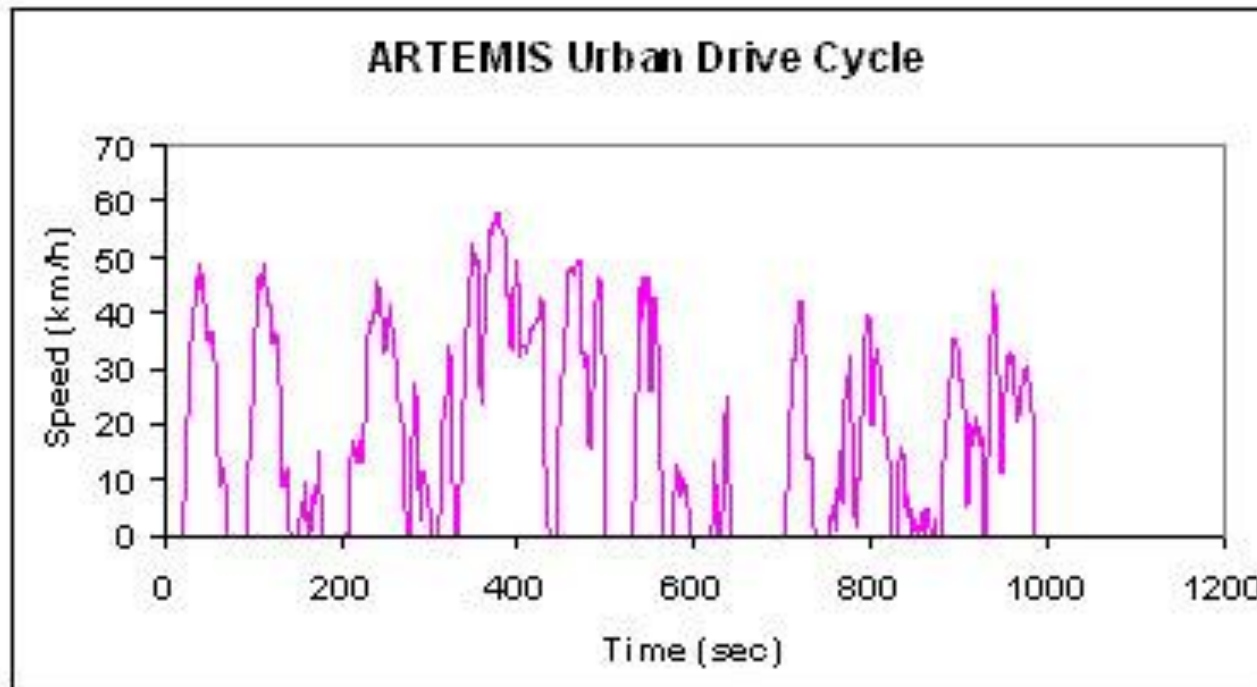
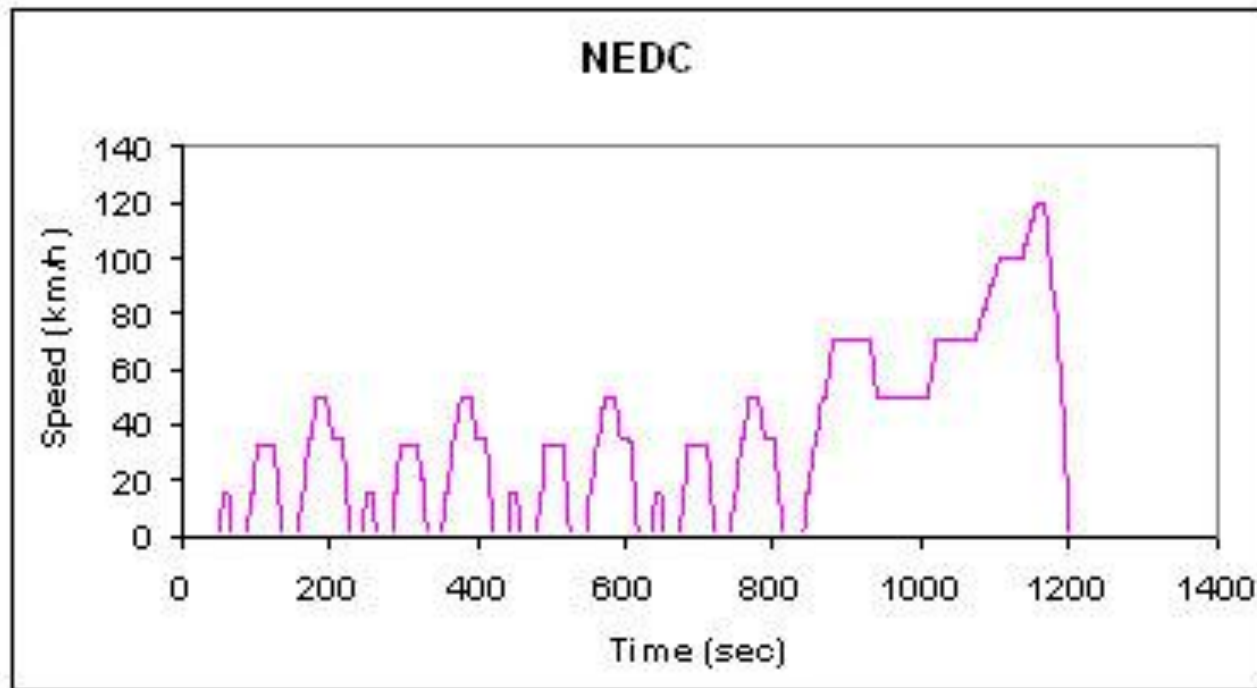


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 - NEDC (regulation) and ARTEMIS (more realistic) cycles.
- Electric vehicles
 - Performance vs. targets – max speed, gradeability, acceleration, range, charge time.
 - Energy consumption on NEDC and ARTEMIS.





CONCLUSIONS THUS FAR



- Public sector very keen to embrace the technology and UK specialist vehicle sector has risen to the challenge.
- A model for the public procurement of other green vehicle technologies.
- Cost of ownership analysis will enable private sector operators to make their business cases.



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Thank you for your attention

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