



Electric Vehicles

encouraging uptake of alternatively fuelled
vehicles for freight distribution in London

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Transport for London

25th May 2010, Barcelona



Electric Vehicles

- **Three strands:**
 - Mayor's Electric Vehicle delivery plan
 - Alternative approaches
 - » Vantage
 - » Project 'EVA'
 - Cargo bikes





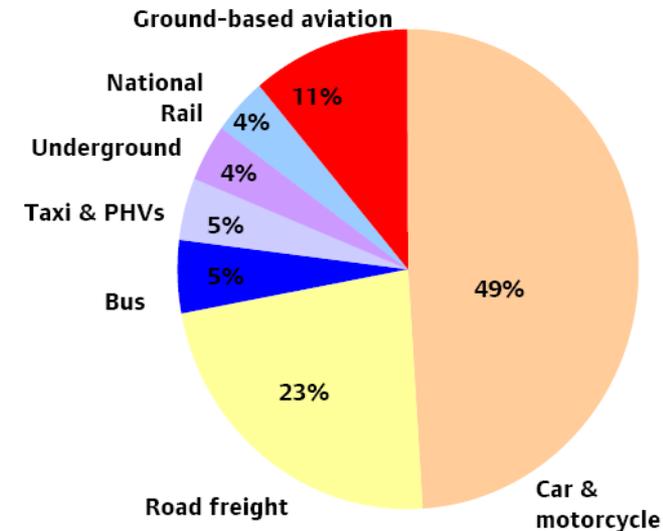
Electric Vehicle Delivery Plan for London

NB - All vehicles, not just freight !

• Why EV?

- Closest 'near to market' green technology
- Air Quality
- CO₂
- Noise
- Energy Security
- UK Automotive industry
- Short trips
- Available

CO₂ emissions from the London's transport
100% = 9.6 million tonnes CO₂ - 2006





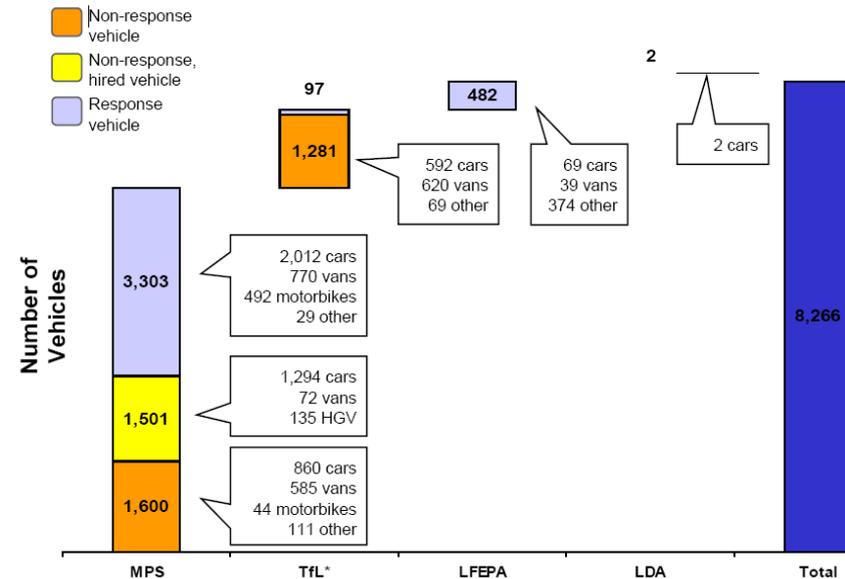
How Deliver the Plan?

• Infrastructure

- 25,000 charging points by 2015
 - 2,500 Publically accessible
 - 22,500 Private charging network
- Range of locations

• Vehicles

- 100,000 (or 5% of London fleet) as soon as possible
- Greater London Authority family
- Suppliers
- Public sector, taxi/private hire/buses
- Commercial





How Deliver?

- **Commercial Fleets:**

- Electric 10 & 'Green 500'
 - Encourage uptake
 - Cost effectiveness
 - Larger scale procurement



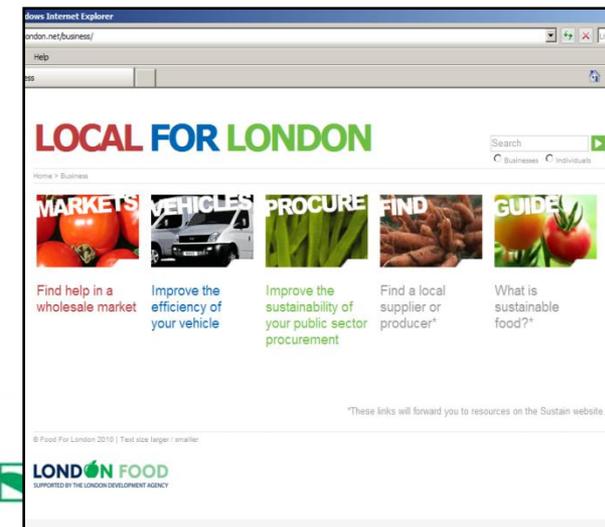
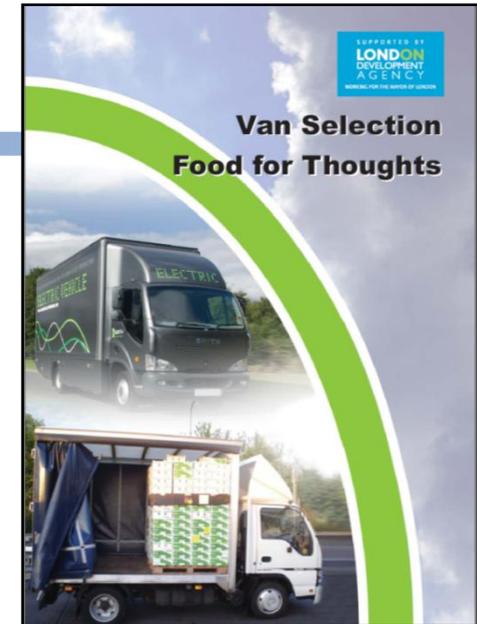
- **Incentives/marketing/communications**

- National: exemption from purchase and annual vehicle tax
- London:
 - Parking
 - Congestion Charge
 - Car clubs
 - 'London' brand for EV
- <http://www.london.gov.uk/electricvehicles/>



Vantage

- Part of Food infrastructure project working with Wholesale Markets
- Promoting alternative fuelled vehicle technologies
- Remove jargon and complexities behind eco vehicle choice
- Scheme produced:
 - » user friendly eco vehicle guide
 - » liaison with suppliers and vehicle converters
 - » vehicle selection calculator
 - » Feedback and analysis from eco vehicle trials
- <http://www.foodforlondon.net/>

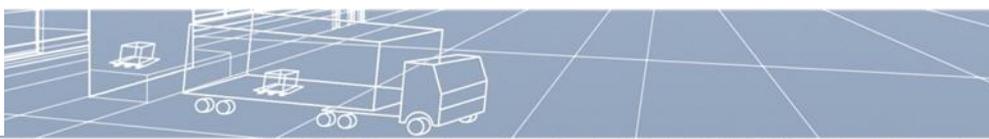




EVA - Electric Vehicles for Advanced cities

- **deployment of Electric Vehicles across Europe**
 - 19 European cities and regions,
 - 17 major European vehicle manufacturers
 - 12 European electricity providers
 - Plus leading research and IT organisations
- **Demonstration elements**
 - Electrifying London Borough Fleets
 - Electrifying Car Clubs
 - Demonstrating Rapid Charging

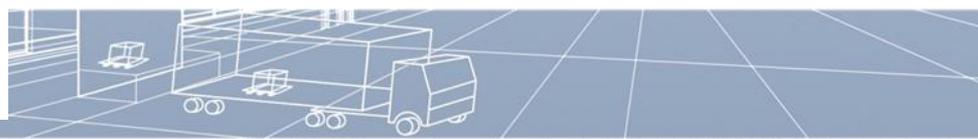
Strategic linkages with regional policy



Cargo Cycles

Commissioned by London Borough of Camden

Jacques Leonardi
University of Westminster
25th May 2010, Barcelona



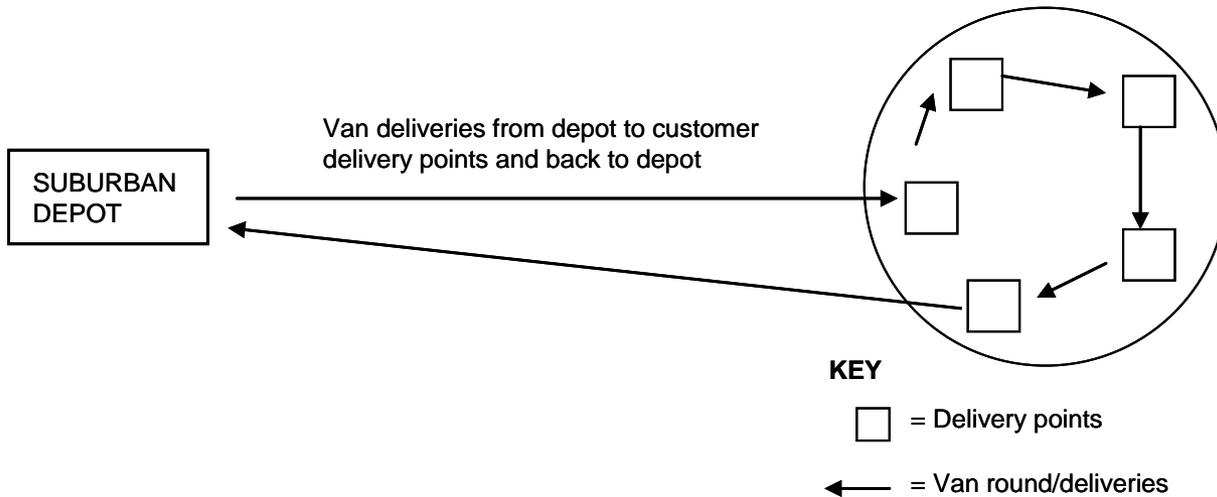
Objectives of the trial evaluation

- To evaluate the existing Office Depot deliveries to postcodes EC 1 - 4 using diesel vans
- To compare this with the new Gnewt Cargo logistics system implemented using Cargocycles for final delivery
- To evaluate the impacts on:
 - Energy use and greenhouse gas emissions,
 - Distance driven in London and in City Centre
 - Road space occupancy during parking for deliveries



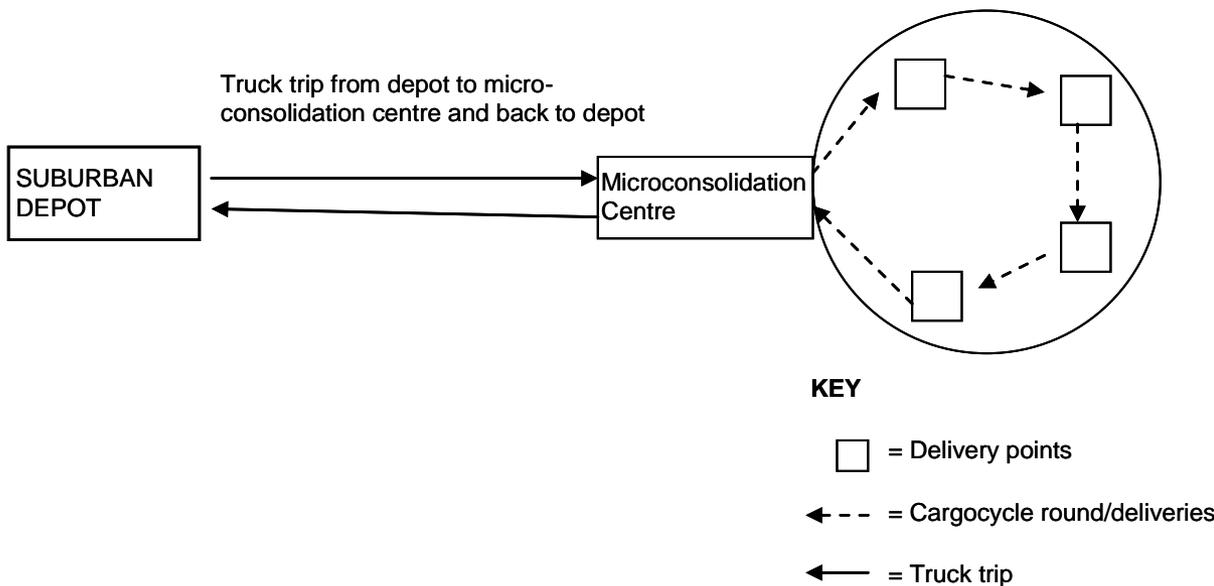


City of London delivery area

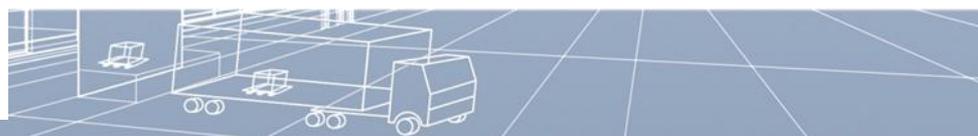


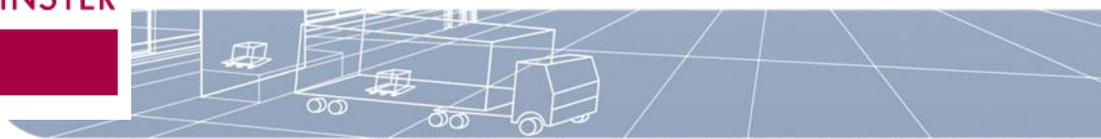
Logistics system for deliveries by vans

City of London delivery area



Logistics system for deliveries by Cargocycle





Conclusion: Conditions for success

- **The trial results are positive**
- **Following observations:**
 - Size and weight of parcels are rather small
 - Delivery area in City Centre has a high density of clients
 - A small consolidation centre is available close to the delivery area
 - The type of business is suitable for Cargocycles (parcels, not pallets)