

Growth of consolidation and electric vehicle use in London

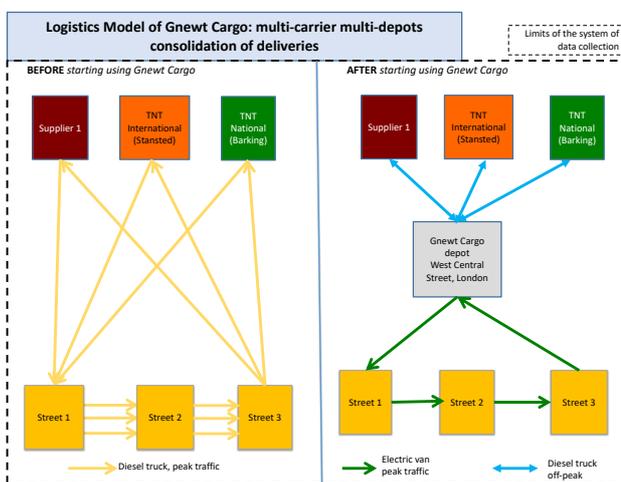
PROBLEM AND AIM

1. little or no growth in most inner city consolidation centres and electric freight vehicles (EV)
2. the conditions for future growth are not well understood
3. there is a need to gain better understanding of business models for clean deliveries with electric vehicles and cycles.

Objectives of the London Living Lab implementation are

- to test different business models with a parcels delivery provider (TNT UK) and a carriers' carrier (Gnewt Cargo) in central London
- to evaluate the benefits of the solutions and scenarios for public and private sector
- to know how to scale up different business models

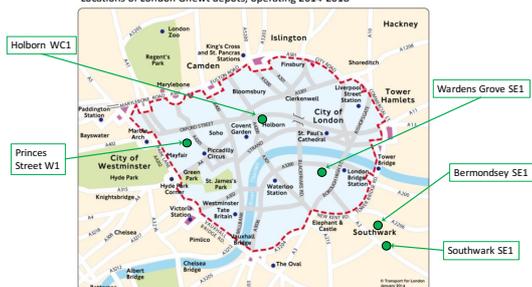
DESCRIPTION OF THE SOLUTION



Distribution operations are consolidating goods from different clients at Wardens Grove, London Gnewt's main depot, 2014-2018



Locations of London Gnewt depots, operating 2014-2018



IMPLEMENTATION PROCESS

2 years of implementations of different business models and scenarios

RESULTS TO DATE

- Distance and fleet reduction in km/parcel: 67%
- CO₂ and air pollutant reduction in gCO₂e/parcel: 100% reduction on exhaust; residual PM abrasion & resuspension
- Energy reduction in goe/parcel: 87%
- Empty distance reduction in monthly empty distance: 93%
- No fleet reduction, no reduction in number of staff

Distance, parcels and fleet data

BEFORE deliveries starting from Barking	Number of vehicle trips per day	Monthly distance of all vans in km	Parcels delivered during month	Distance in km/ parcel
Van TNT domestic	10	24,647	30,089	
Average				0.82
AFTER Gnewt Cargo operations				
Electric Van Gnewt	10	5,663	21,211	0.267
% reduction	0	77	30	67

CHALLENGES

- Lack of affordable space in city centre
- >2 year search for suitable logistics space in city centre
- Lack of bigger 3.5t electric van with at least 15 m³ volume and 1.4 t load weight capacity
- Shared use of depots, vehicles and customer data
- Growth in operational scale implies a shift in business contracts from one subcontractor to another

EXPLOITATION POTENTIAL

- Specific access rules for electric vehicles and cycles for certain urban areas such as pedestrian zones and other restricted areas (no Central London Congestion Charge fees)
- Consistency in rules for electric vehicle parking and stopping areas across different London Boroughs
- Help in finding logistics depots that are reasonably priced, but centrally located
- Having a regular contact with local businesses, helping to coordinate the activities around new solutions
- Help develop and test different types of suitable technologies with research funding

63 charging points and 100 vans at new London depot of Gnewt, opened March 2018



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