Re-introducing Portering to London: Concept to Reality

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What does an urban delivery solution look like?
Electric Vehicles

Congestion

Electric Vehicles

www.gnewtcargo.co.uk
Bigger vans, bigger possibilities, less congestion
Last-mile reality in London

Diminishing kerbside access

Van stationary for 65% of round
Driver walking up to 10km/round
Future strategy, from the past

Porter delivery 1912  
Porter delivery 2017
Decoupling driving from delivery

Source: Casa PhDs Team (Barrientos, Neira, Palominos, Thompson)
Reducing van activity & dwell time
Research Questions

- Could decoupling driving from delivery reduce kerbside dwell times of vans on-street?
- What is the optimal split of work load between drivers and porters to maintain cost neutrality?
- Would Micro-Consolidation Points or a mobile depot be better for servicing porters?
- To what extent can vehicle miles and CO₂ be reduced from adopting portering?
Portering – the science

Optimising driving and walking tours
- Package weight & size issues
- Bulk deliveries
- Handling collections
- 23% of clients are in high-rise
The optimization challenge

- Clusters of delivery points
- Routing within clusters

- Intra cluster routing
- Hoteling
Impact of package weight and size
Feasibility studies 2018

2.5km V 12km!
On-street portering trials – EC3
On-street portering trials

<table>
<thead>
<tr>
<th>Performance metric (mins:secs)</th>
<th>Per consignee</th>
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<tbody>
<tr>
<td></td>
<td>Pre-trial by driver</td>
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<tr>
<td></td>
<td>Porter 90% : Driver 10% (simulation)</td>
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<tr>
<td></td>
<td>% diff.</td>
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<tr>
<td>Parking time at kerbside</td>
<td>03:55</td>
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<tr>
<td></td>
<td>00:32</td>
</tr>
<tr>
<td></td>
<td>86%</td>
</tr>
<tr>
<td>Driving time</td>
<td>01:50</td>
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<td></td>
<td>00:52</td>
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<tr>
<td></td>
<td>53%</td>
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<tr>
<td>Total vehicle / driver deployment time (i.e. parking and driving)</td>
<td>05:44</td>
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<tr>
<td></td>
<td>01:23</td>
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<tr>
<td></td>
<td>76%</td>
</tr>
<tr>
<td>Portering time</td>
<td>00:00</td>
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<tr>
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<td>05:13</td>
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<tr>
<td>Total labour time (i.e. driver plus porters)</td>
<td>05:44</td>
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<td></td>
<td>06:36</td>
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<td></td>
<td>15%</td>
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Where to site micro-consolidation points
Re-visiting systems from the past (2019)
On-street portering trials 2
Dispatcher View (Browser)

Driver View (Tablet/iPad)

Rider View (Smartphone)
PARCEL
Total Number of parcel arrived
105% of Target reached

Number of parcel for porting
91% of Total parcel for porting

Number of parcel for van
9% ugly of total Parcel

Daily Target >240
Daily Target >80%
Daily Target <20%

Parcel Volume

Total Parcel Arrived
Portering parcel Rate
Ugly parcel rate
Portering parcel Rate Target
Ugly parcel rate Target
thank you