

Portering parcels to reduce reliance on vans

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Concept

Delivery vans are

parked for around **65%** of the working day

Is this cost effective?



In our solution

parcels are dropped off to roadside porters to deliver on foot



Possible variations of the model include:

Secure storage points

Transport porters as well as parcels

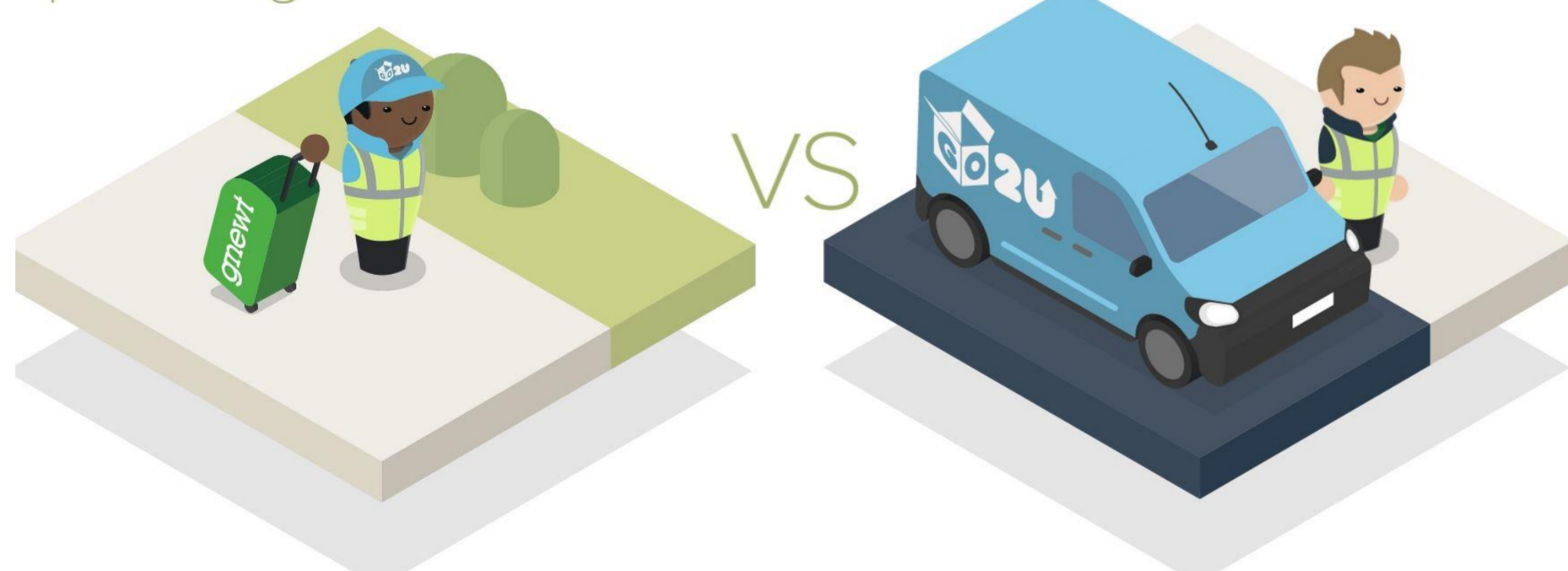
Use of cargo-bikes



The key factor for adoption the cost of the portering service

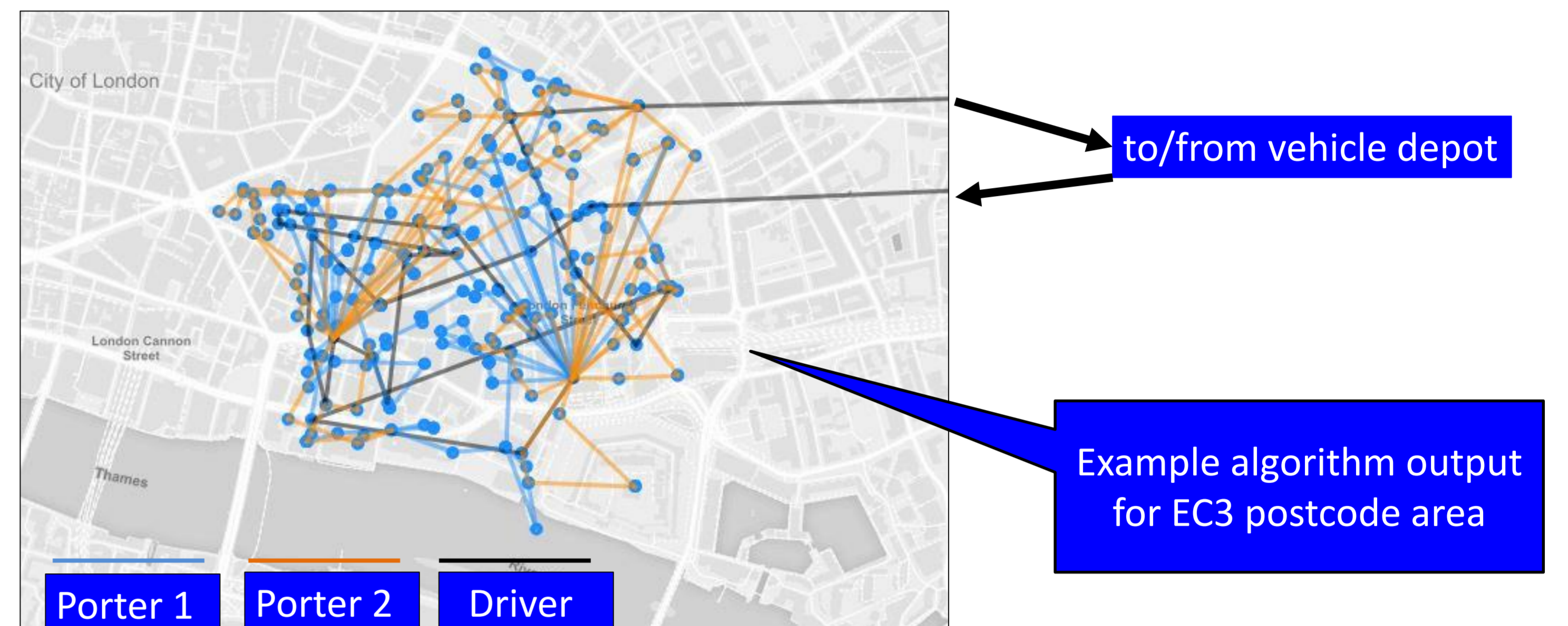
savings made through using fewer vehicles and drivers

Will we save money?



Methodology

- Detailed studies of existing parcel carrier rounds in central London
- On-street portering trials in the City of London and Southwark
- Algorithm to model driving, parking and walking to delivery addresses
- Algorithm to model parcel drop offs for porters to deliver



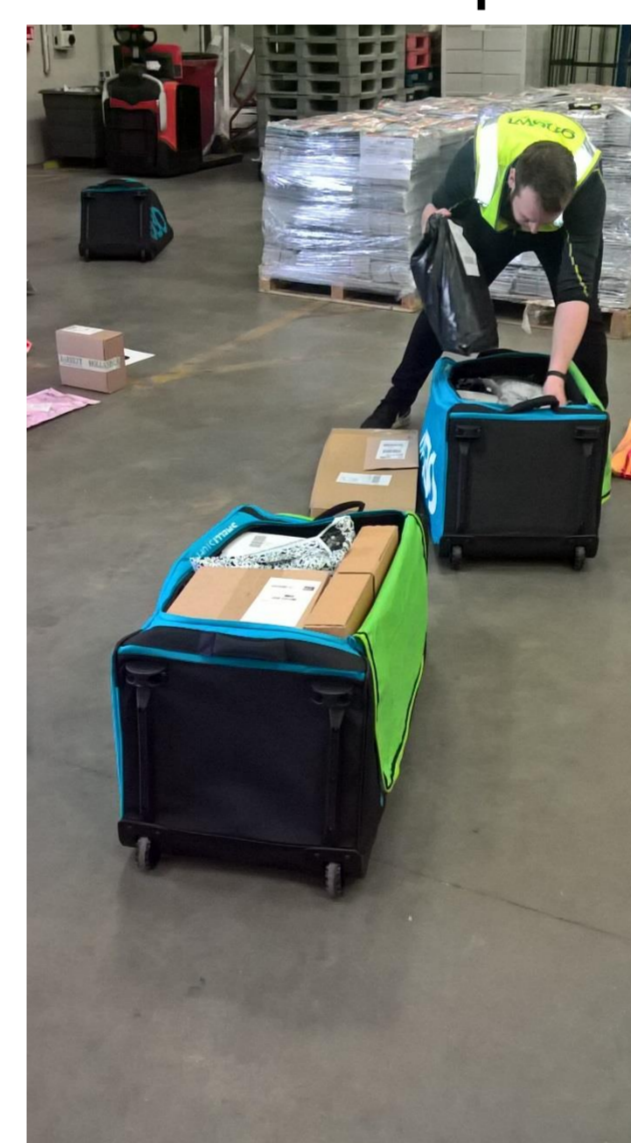
Results

Existing parcel carrier vehicle rounds:

- Vans parked for 60-70% of working day; nearly all parking on-street
- Average stop time of 8-9 minutes and 25 to 40 stops per day
- Average driving distance of 12km (7.5 miles); mean speed 7.1kph (4.4mph)
- Average walking distance of 8km (5 miles)

On-street portering trials and further analyses:

- Porters delivered 47% and 61% of parcels in two trials
- Kerbside parking time reduced by ~50%
- Vehicle driving time reduced by 35% with potential to reduce by 60% if a vehicle with double the capacity were used
- Total costs increased by 19%-43%; estimated to be cost neutral if porters carried 90% of parcels



Discussion

Portering provides the opportunity for substantial kerbside parking, driving time and distance savings but with organisational and financial challenges to resolve before wide-scale implementation can be considered.

The cost of portering can be reduced if:

- Porters are self-employed
- Portering is organised over a wide area (e.g. London's Central Activities Zone) to give economies of scale
- Porters are shared between different carriers to maximise efficiency of their use and to provide porters with sufficient workloads

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Academic project partners:



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