Department for Transport

The last mile - a call for evidence on the opportunities available to deliver goods more sustainably

Response form

Confidentiality and data protection

The purpose of this survey is to seek your views on the draft policy proposals for opportunities available to deliver goods more sustainably. It is carried out in the public interest to inform public policy.

As part of this consultation we request the following information:

Your name and email address - in case we need to ask you follow-up questions regarding any of your responses.

You don't have to give us this information. If you do, we will not share this information with anyone.

If you do give us your contact information, you consent to DfT using it only for the purpose set out above.

All your personal data will be deleted within 3 years of collection. You can withdraw your consent for us to hold your personal data at any time by emailing lastmilecfe@dft.gov.uk.

Find out more about the Department for Transport's data protection and privacy policy.

Information about you

Name	Jennie Martin
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Company Name or Organisation (if applicable)	ITS United Kingdom
Please tick one box from the list below that best describes you /your company or organisation.	
	Micro[1], Small[2] or Medium[3] Enterprise?
	Large Company
x	Representative Organisation
	Trade Union
	Interest Group
	Local Government
	Member of the public
	Other (please describe):

Consultation questions on opportunities and challenges

[1] up to 10 employees = micro enterprise

[2] up to 50 employees = small enterprise

[3] up to 250 employees = medium enterprise

Q1. What is the potential scale of the opportunity here? How big a role could e-cargo bikes, micro-vehicles and e-vans play in reducing congestion and pollution in our towns and cities?

It is important to ensure that the transition to lower carbon / zero carbon deliveries is underpinned by a commercially viable business case to ensure the greatest uptake and impact whilst aligning with DEFRA's, the London Mayor's Air Quality Strategies, and other city/regional strategies.

Whilst funding and Government support may trigger Feasibility Studies and Proof of Concepts for the examination of alternative last mile delivery options it is important to realise that a sustainable business case will ensure more permanent implementations with an ability to repeat and scale.

Elements to consider include:

- Type and quantity of goods being delivered:
    - If we are looking at the courier parcel market then cross dock facilities / consolidation centres covering the last mile can be effective providing the type of vehicle used has the capacity to carry enough parcels to make a route / trip viable and the extra handling involved is not commercially prohibitive.
    - If we are looking at the fresh / frozen food market then issues such as food safety and hygiene will impact on type of vehicle and last mile considerations.
- Type of vehicles involved:
    - The larger the vehicle the greater the range anxiety to be considered for electric vehicles. If there is a desire to move to zero carbon clean air zones in cities then the provision of infrastructure for charging is essential.
    - Projects being considered include consolidation of frozen / chilled / ambient goods for delivery to restaurants by EV HGV as opposed to individual restaurants receiving goods from multiple suppliers.
    - Delivery Servicing Plans are a useful tool to look at individual businesses operations and their delivery / receipt of goods regimes and how their delivery 'hinterland' could be impacted through consolidation of deliveries and how adjacent businesses could benefit from aggregation of deliveries.
    - Certainty of charge therefore requires the ability to be able to 'book the charge and the space' when making a delivery, especially for larger EV HGVs carrying consolidated loads.
- The Dynamic Kerbspace
    - The installation therefore of 'bookable' rapid charging facilities at delivery locations is key to providing the reassurance that space and charge certainty can be guaranteed.
    - Grid Smarter Cities, in that regard, have developed the concept of Kerb, a way to dynamically and flexibly manage the kerbspace.
    - Unlocking the kerbspace dynamically is the key to opening up cities and businesses – the kerb is the key enabler between the road network and commercial activity.
- Charging infrastructure required:
    - Impact on the grid needs to be considered when siting charging infrastructure or understanding the infrastructure considerations.
    - Off-grid options need also to be considered.

Two examples currently exploring the feasibility of such lower carbon and zero carbon options are detailed below. Both are currently being funded by Innovate UK (Member of ITS (UK))

1. Grid Smarter Cities (Member of ITS (UK)) is engaged in the delivery of an Innovate UK funded project looking at Last Mile Deliveries by low carbon / zero carbon vehicles as well as using existing 'fleets' (such as local taxis) to minimise the number of vehicles engaged in Last Mile Deliveries:

Abstract

DASH (Delivery As a Service for Highstreets) combines multiple technology & transport partners to create a collaborative, emissions-reducing delivery proposition involving crowd-sourced deliveries & revitalisation of inner-city high-streets via an 'easy-entry' B2B & B2C mobile software platform. This enables:

(a) utilisation of low occupancy local authority car parks as delivery hubs (X–Doc) for courier operators, with adjacent Electric Vehicle rapid charging infrastructure,

(b) operators to reduce inner city courier fleets & replace with multiple crowd-sourced onward delivery options,

(c) customers to have variable delivery options (B2B & B2C),

(d) a scalable business opportunity for electric cargo bicycles,

(e) option for taxi drivers to multi-purpose vehicles,

(f) a platform for local independent high-street traders to offer goods for delivery, click & collect & drop-off points,

(g) integrated pricing, payment, routing, scheduling & customer parcel tracking options.

DASH is an interoperable, scalable platform technology that can be expanded to target multiple freight operators & retailers to maximise socio-economic & environmental impact.

More details here

2. Gnewt Cargo is engaged with the Greater London Authority in the delivery of an Innovate UK funded project looking at the viability for EVs performing Last Mile Deliveries in London.

Abstract

This submission sets out Gnewt's Stream 1 proposal in partnership with the GLA. The trial will run from April 2017 to 2019. Gnewt proposes to lease 19 Voltia & BD-OTO, N1 & N2 vehicles for last-mile logistics that are potentially far better suited for urban deliveries.

This project is a first of its kind deployment of innovative larger zero emission vans in London which will actively disrupt existing diesel fuelled vehicle technology and create a legacy for the future.

The trial directly delivers the LoCITY & Mayor's programmes to improve air quality. Our proposal is essential, as existing barriers won't change while cost, data gaps, limited vehicle options and unproven claims remain.

Proving the viability of these innovative vehicles in a commercial setting will allow OLEV, GLA & LoCity to collate robust whole life costs, mileage, efficiency & energy data which plugs the current data gap in policy making.

Whilst leasing and operational costs are high versus diesel, demonstrating that these vehicles can successfully overcome current electric vehicle limitations will help increase demand and manufacturing supply, thus driving down costs. This type of data is essential for assessing the potential for city-wide scale up in London & other leading big cities.
Data from the trial will help policy makers lobby government and other EU or international funders to secure further funding for electric vehicles and charging.

More details here

Q2. What would the environmental, economic and congestion benefits be? What impact would it have on jobs?

Making the fleet of delivery and collection vehicles in towns and cities cleaner, quieter and fewer in number (via consolidation) has the potential to deliver important benefits in terms of a more attractive streetscape and increasing the "liveability" of an area. This does not just yield benefits for local businesses by increasing footfall or for local employers in making their workplaces more attractive. The health benefits of cleaner air are more or less fully understood and accepted at this point. But a quieter environment, less traffic noise, and less traffic movement, has benefits in terms of reduced stress which translates into lower rates of cardiovascular disease. One of the better known examples of this is that living for an extended period of time under the Heathrow flight paths can reduce life expectancy by up to seven years, after allowance for all other factors such as socio-economic status or ethnicity. It is the noise of the air traffic which causes this anomaly.

While consolidation of freight movements and the use of micro-vehicles such as bikes will reduce congestion, electric vehicles of standard design carrying freight in the standard pattern will of course have no impact.

If reducing congestion is a priority, then we need a policy to reverse the current trend for workplace deliveries of personal shopping which has moved van traffic from residential areas to city centres. This can be by banning such deliveries – Transport for London is one employer who has done so – but more positively it can be done by supporting deliveries to local shops, facilities like libraries or museums, locker banks, pre-registered "neighbours who are always in", etc. In many towns and cities there is now an oversupply of high street shopfront premises – if entrepreneurs want to change any of these into "internet shopping hub cafés" then planners should not stand in the way. Such facilities would be particularly beneficial by consolidating the many returns which are generated by clothes shopping online. Digital solutions which track goods and provide notifications are available to support all such innovative delivery and collection schemes.

Parcel Delivery Market

The explosion of online retail has serious implications not only for logistics providers who are finding it increasingly difficult to tackle congestion but also for city governments with the incumbent task of sustainable development (PR News 2013).

Consumer & business logistic requirements regarding speed, service quality, convenience & reliability are becoming increasingly similar & demand for both B2B & B2C deliveries is rising (HAL 2013).

Currently, parcel delivery companies deliver into city centres in non- optimal fashion with poor interaction between customers & retailers (Barclays' Last Mile 2014).

Independent retailers have poor access to cost-effective e/m commerce, click & collect or delivery fleet solutions (BIS, 2015).

Failed UK deliveries cost £771M (IMRG 2014), much of which is avoidable via increased digital engagement of service providers & customers. Hence, collaborative strategies must be adopted by businesses & governments to improve overall efficiency of the urban supply chain.

Therefore, it is important to look at the sector holistically and the marginal gains that can be achieved through process optimisation and 'light' technological and infrastructure interventions as well as looking at the vehicle type.

Taking the example of the DASH Project described above:

•SOLUTION: DASH proposes an interoperable, scalable multi-user web platform that ena bles 'just-in-time' crowd-sourced deliveries with multiple transport modes (inc. zero-car bon vehicles), integrated pricing, routing, scheduling & parcel tracking. It addresses a sec tor often neglected as part of an integrated city solution & allows private & public stake holder co-operation to convert a complex, disconnected delivery process into a SMART end-to-end solution, mutually beneficial for logistics providers, retailers, local authorities & consumers alike.

•IMPACT: Socio-economically/environmentally compelling on multiple levels:

a) parcelco fleet efficiency savings,
b) repurposes council parking assets,
c) uses taxi fleet downtime & zero carbon vehicles,
d) easy entry e/m commerce for local traders,
e) recirculation of local monies & jobs ,
f) reduces congestion/emissions.

•CHALLENGES:

a) engaging multiple stakeholders,
b) data sharing reluctance across supply chain,
c) digital engagement of local traders,
d) relaying business case for parcelcos; overcome by communicating

On the issue of jobs, it is already clear that changes in goods delivery and collection will impact the jobs market. Automation and consolidation would overall reduce jobs, and automation has the particular distinction of potentially removing a large number of unskilled jobs but creating another large number of highly skilled engineering, science and design jobs. The problem is that those who lose out on the driving and warehousing jobs are not going to be able to start work in the high tech industry. Green delivery options such as e-bikes and

micro-vehicles have the jobs market potential of creating new, unskilled jobs, which in the UK context will be very helpful in the shorter term. In the longer term, our education and employment sectors need to make much more of a strategic effort to create the workforce we will actually need over the next 50+ years, which means many more workers with STEM qualifications and as few unskilled new entrants as possible.

Q3. What other barriers need to be considered? Can these be overcome without Government support or intervention?

Some of the barriers have been described above and the impact of issues on the commercial models, viability and competitiveness of the space.

The issue of last mile deliveries is layered, nuanced and complex and the way to therefore move towards any solution is via marginal gains in operation and opportunity considering all of the actors and infrastructure currently in pace and how 'nudging' will have an impact.

An example, currently being investigated is the creation of a Freight Traffic Control Platform for Construction whereby the 'nudge' can be built into planning consent – for example, all deliveries to sites in certain areas must be by EV HGV and only by prescribed routes with guaranteed kerbside landing slots and holding areas. To do this there must be certainty of charge, if required for the EV HGV and therefore bookable bays. The incentivisation for the supply chain is a commercial one i.e. to be procured for the contract. For the city or borough, policy and mandated measures can effect behavioural change.

However, for other sectors such as food deliveries and parcel deliveries the 'carrot' could be preferred access to the kerbspace for Electric Vehicles though the use of 'virtual bays.' Again, this is a concept developed and proven with an Innovate funded project delivered by Grid Smarter Cities and is attracting interest from cities around the world – the kerbspace may be finite but permissions can be flexible. That flexibility can be nuanced by user type / time of day / location as it is important that the last yard of the last mile is guaranteed and certain as vehicles circling looking for a space to load / unload cease to be efficient whether zero carbon or not.

Again, looking at the granularity kerb by kerb, zone by zone, city by city is essential as no two cities will be the same and so a layering and interoperable approach is key.

As described above, the last yard of the last mile is a key enabler and so the bookable landing slot or 'virtual bay' and this can be incentivised through flexible tariffs for low carbon or EV deliveries.

The large-scale shift will come from a commercially beneficial 'carrot' approach option enabling operational efficiency gains to flow from the guaranteed booking of the kerbspace.

The use of 'Notification of Imminent Arrival' to the goods recipient (either a supermarket or restaurant awaiting delivery or an individual waiting at home) via a geo-fence breach of a GPS enabled device is effectively a way to digitally ring the doorbell before arrival. Doing so

reduces the dwell time and therefore creates an operational efficiency which can lead to a marginal gain.

Q4. What can we learn from the experiences of other countries in this area?

In this area, the UK is actually as advanced as most comparable countries. The community of people who work on these types of solutions tend to work cross-border as a matter of course. It will be important to enable them to carry on doing so in the future, if we want the best solutions to be devised and implemented in the UK.

Consultation questions on e-cargo bikes

Q5. What are the opportunities for e-cargo bikes for delivery organisations, manufacturers and retailers; for companies which maintain and service bicycles and for other, e.g. training, organisations?

Q6. Further to Q3 above, what form of financial support, if any, is required to make e-cargo bikes commercially viable, or to increase speed of uptake? Should this take the form of e.g. positive incentives or tax relief?

Q7. If financial incentives for businesses were introduced to increase the uptake of e-cargo bikes a clear definition of e-cargo bikes would be required, including load capacity and weight (under 250W; see Figure 2 as per EAPC Regulations). How could this operate in practice?

Q8. As e-cargo bikes are bicycles and do not need to be registered by the DVLA we would welcome your views regarding how purchases of e-bikes could be verified in order to qualify for financial support. How could this work in practice?

Q9. What legal changes – regulatory or deregulatory – would support the increased use of e-cargo bikes e.g. licensing, parking and insurance of bikes and riders? Should these be national or local? Would the current electrically assisted pedal cycle regulations be sufficient?

Q10. What emerging technologies can support the deployment of e-bikes e.g. batteries, regenerative energy storage, route mapping, electric trailers?

Q11. If e-cargo bikes are to be widely taken up, what infrastructure changes would be required to change the way goods are currently distributed, which is at present often from large, out-of-town warehouses e.g. changes to roads, parking, loading zones, hubs, cycle lane design?

Q12. E-cargo bikes, electric or solely pedal powered are larger/heavier that everyday bicycles. What level of training should riders have? Should riders be required to have e.g. additional training on efficient cycling and the safe use of bikes?

Q13. Should common standards be introduced for e-cargo and cargo bike design e.g. the design and standards of paniers and containers, volume limits and the refrigeration standards for carrying perishable goods?

Q14. Are there any other points you wish to raise?

Q15. [For e-cargo bike operators] To assist DfT with evidence-gathering, how many e-cargo bikes are there in your fleet, and what are the range of costs for their maintenance and upkeep?

Consultation questions on micro vehicles

Q16. Should measures to support micro vehicles and e-bikes over 250W be considered as part of this review?

Q17. Is anything needed from government to encourage the use of pedal cycles and e-bikes to tow cargo trailers, or the use of electrically assisted trailers to enable carriage of higher payloads?

Q18. [For micro vehicle operators] To assist DfT with evidence-gathering, how many micro vehicles are there in your fleet, and what are the range of costs for their maintenance and upkeep?

Q19. Are there any other points you wish to raise?

Consultation questions on ultra low emission vans and trucks

The consultation questions below are designed to get stakeholders' perspectives on the barriers preventing further uptake of electric vans.

Q20. What do you perceive as the key barriers to further uptake of electric vans in your organisation?

Q21. What do you perceive as the biggest infrastructure barriers to further uptake of electric vans?

Q22. Do you have any evidence where the cost or process of obtaining or reinforcing a grid connection has been a barrier?

Q23. Thinking about the sector that you work in, are there any particular barriers in your sector that prevent increased electric van uptake?

Q24. What action or policies would you like to see from government that would help you increase the share of electric vans in your fleet?

We are keen to understand existing industry plans to adopt electric vans. The consultation questions below are designed to evidence the existing use of electric vans amongst businesses, and plans to increase uptake.

Q25. How many vans are there in your fleet?

Q26. How many of these are electric (either 100% electric or plug-in hybrid)?

Q27. If you do have electric vans, what are they principally used for?

Q28. What, if any, plans do you have for introducing more electric vans into your fleets?

How to Respond

The consultation period will run between 30 July 2018 and 10 September 2018.

Complete this form and either email it to:

lastmilecfe@dft.gov.uk

Or post it to:

Cycling and Walking Policy
2/16 Great Minster House
33 Horseferry Road
London
SW1P 4DR

Please ensure that your response reaches us before the closing date. If you would like further copies of this document you can request copies by e-mailing lastmilecfe@dft.gov.uk

A summary of responses, including the next steps, will be published within three months of the close of the consultation. Paper copies will be available on request. The consultation is being conducted in line with the Government's key consultation principles. Further information is available at: https://www.gov.uk/government/publications/consultation-principles-guidance.

If you have any comments about the consultation process please contact the Consultation Co-ordinator at consultation@dft.gsi.gov.uk. Please do not send consultation responses to this address.