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Life after lockdown

Life after lockdown: briefing paper 4

Reinventing transport: planning for e-cargo bikes

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This paper is part of a series of briefing papers exploring ideas and solutions in response to Covid-19 that help us build back better, creating healthier places and happier people.

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We connect people and places, create liveable neighbourhoods, transform the school run and deliver a happier, healthier commute. Join us on our journey. www.sustrans.org.uk

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Summary

The UK needs to invest in and deliver a recovery from the pandemic that is better for society, reduces inequality, and transforms our economy to net zero. Transport is at the heart of this recovery, and this must include both personal and business transport.

As purchasing behaviours shift further online and van traffic returns to levels above that seen before the pandemic we need to improve the way we transport goods and services for business.

Now is the ideal time to incentivise and scale up the use of e-cargo bikes for business use, especially in towns and cities. At the same time we need to reduce van use and make logistics more efficient.

This paper proposes three recommendations that we think need addressing to reinvent urban transport based around e-cargo bikes:

1. **Invest in infrastructure and support for e-cargo bikes for business use.**
    a. Increase investment to support the uptake of e-cargo bikes.
    b. Build on existing walking and cycling investment in all UK nations to meet the needs of businesses for e-cargo bike use.
    c. Develop a network of cargo bike libraries across the UK through time limited investment with a stated aim of transitioning these into self-financing leasing schemes.

2. **Incentivise e-cargo bikes for business transport.**
    a. Allow customers to choose cycle delivery.
    b. Introduce local schemes that reduce the use of motor vehicles in urban areas.
    c. Consider introducing a levy on online shopping, excluding smaller SMEs and deliveries by e-cargo bikes.

3. **Reduce the need for van use and make urban logistics more efficient.**
    a. Adopt a 20-minute neighbourhood planning principle to help people walk to and more easily access local services and shops.
    b. Consolidate deliveries to reduce van use in urban areas and make deliveries more efficient.
    c. Electrify motor transport so that all new vans are electric by 2030.

Introduction

Lockdown changed the way we shop in the UK

The Covid-19 pandemic has led to major changes in the way we live across the UK.

One of these is the way we purchase and consume food and goods. Many people turned to the internet during lockdown shifting habits, and this trend appears to be continuing in many sectors.

A Waitrose study, for example, found the number of consumers who do a weekly grocery shop online has doubled since lockdown in the UK.[1] The report found 20% of online shoppers hadn't considered it before and 41% find online shopping more convenient. Importantly they predict this trend is now "irreversible". Waitrose and many other retailers are investing millions in jobs and online services to meet this new demand.[2]

Amazon reported that locked-down shoppers drove sales 40% higher, year-on-year, doubling their UK business quarterly profit, despite significant Covid-19 costs.[3]

Many restaurants, including high end offerings began delivery services independently or through existing specialist delivery platforms. Profit margins on delivered food can be high, especially as social distancing measures will continue to reduce seating capacity within restaurants for the foreseeable future. Just Eat, a food delivery company, saw a 33% year-on-year growth in their UK business during April and May 2020.[4]

Overall across all retail UK online sales have increased by 53% year on year with the largest rises seen in food and for household goods.[5] The rapid increase in online shopping during Covid-19 goes hand in hand with increases in delivery vehicles, especially vans or light commercial vehicles (LCVs).

Motor vehicle use and congestion is now back to normal levels and higher in many urban areas

Before the pandemic vans were the fastest growing motor vehicle in Britain.[6] Vans now make up 15% of total traffic in 2019 and collectively drove 76 billion kilometres in England in 2019.[7] Van traffic was predicted to increase by 20% in London by 2030.[8] If urban areas are going to tackle congestion and other issues associated with motor vehicles this strategy needs to include both personal and business transport.

During lockdown motor vehicle traffic fell to levels not seen since 1955, however five months on UK Government figures suggest motor vehicle use is approximately the same as before the lockdown. Whilst car use is still slightly under pre-lockdown levels, the use of vans (light commercial vehicles) is now consistently above levels seen before the lockdown, especially at the weekend.[9]

While data is still patchy there is some evidence that vehicle use and corresponding congestion may be even higher in urban areas. Congestion since the end of July in outer London is now consistently higher than pre-lockdown levels. With the return of schools, congestion on the 7 September was 153% of equivalent levels in 2019.[10]

There is an urgent need to reinvent business transport, especially in urban areas

The Covid-19 pandemic has exposed the way we currently live is neither sustainable nor fair. The UK needs to invest in and deliver a recovery from the pandemic that is better for society, reduces inequality, and transforms our economy to net zero.

Transport is at the heart of this recovery. Motor vehicles create a number of well-known issues, including air pollution and climate change. Van use for businesses including local government, SMEs, tradespeople and logistics forms are rising. Increased home deliveries also can contribute towards higher numbers of, and larger, vehicles driving on residential streets. This can increase road danger and the risks of a collision, especially for people walking and cycling.

An increase in online shopping, especially from larger operators may also reduce shopping locally and in urban centres. This will put even more pressure on struggling high streets and local businesses which cannot compete on price or convenience. This could harm the local economy.

Increased congestion in urban areas across the UK is likely to make business transport less efficient by delaying delivery times and adding costs to businesses. If congestion continues to rise there will be a growing business case in many areas to adopt other ways of transporting goods and undertaking business transport within urban environments.

Fortunately a solution is already available although hardly used in the UK in the form of electric or ‘e’-cargo bikes. E-cargo bikes are smaller than vans and can use cycling infrastructure to avoid congestion. E-cargo bikes are also less dangerous and do not emit greenhouse gas emissions.

In the Netherlands, DHL already make 60% of inner-city deliveries by cargo bikes.[11] Transport for Quality of Life estimated that e-cargo bikes could replace up to 8% of urban van trips by mileage. E-cargo bikes are also often used by many businesses for a wide variety of activities as a replacement for cars and vans. Transport for London estimated up to 14% of vans could be replaced by cycle freight by 2025 in areas where LGVs contribute to more than 60% of traffic.

Recommendations for reinventing business transport

This paper proposes three recommendations that we think need addressing to reinvent business transport and plan for e-cargo bikes:

1. Invest in infrastructure and support for e-cargo bikes for business use.
2. Incentivise e-cargo bikes for business transport.
3. Reduce the need for van use and make logistics more efficient.

1 Invest in infrastructure and support for e-cargo bikes for business use

We need to:

a. Increase investment to support uptake of e-cargo bikes

The UK Government's e-Cargo Bike Grant Fund provided £2 million for the acquisition of e-cargo bikes, to support green last mile deliveries in England. In total 282 e-cargo bikes and trailers were funded for local authorities and 409 e-cargo bikes were subsidised for private operators. Scotland also provides regular funding in loans for e-bikes, including e-cargo bikes, although relatively few have been funded through the scheme thus far.

The UK Government has committed to extend the e-cargo bike grant programme, however currently no additional funding is available in England and far more is required to reinvent e-cargo bike delivery across the UK. The UK Government's Transport Decarbonisation plan should give equal precedence to e-bikes, including e-cargo bikes, as it does to other electric motor vehicles to support a reduction in car and van use for trips that could be cycled.

b. Build on existing walking and cycling investment in all UK nations to meet the needs of businesses for e-cargo bike use

The £2 billion announced for cycling and walking this year in England and similar commitments across other UK nations is to be welcomed.

This funding provides a foundation for a change in priority towards investing in cycling in walking. The UK and devolved governments should quickly prioritise increasing the capacity of local authorities to spend this money well.

Once capacity has been built more funding will be required over time. Sustrans modelled in 2016 that £8 billion is required by 2025 to double cycling in England and in a way that helps make cycling more inclusive and prioritises disadvantaged and marginalised communities.[12] Investment in the industry and cycling has great potential to provide employment and help us transition to a greener economy.[13]

Investment for improving infrastructure for e-cargo bike logistics as part of this is critical including cycle networks, storage and parking, and maintenance.

We need to ensure existing and new cycle infrastructure, including protected cycle tracks and low traffic neighbourhoods are fully accessible for e-cargo cycles which tend to be wider, heavier and need adequate space for turning. Improvements to design guidance is helpful however we need to ensure standards are maintained through delivery. Existing infrastructure will also have to be redesigned in many places. Ensuring cycle infrastructure is fully accessible for e-cargo bikes will ensure it is suitable for adapted cycles and better for everyone.

The cycle logistics industry, however, needs more than just better cycle networks. For example e-cargo bike hubs to store goods, or transfer cargo from motor vehicles to e-cargo cycles. These hubs can be static or mobile within a city. Hubs are also required for urban goods consolidation to reduce the number of deliveries, vans and cycles required in an urban area.

The cycling sector also needs more investment in research and development to increase capacity in the maintenance of e-cargo bikes within the UK. Currently most e-cargo bikes are manufactured oversees, as are spare parts and their use in the UK is still in its infancy. This makes maintenance and repair challenging for mechanics. Funding through the UK decarbonisation plan for cargo bike maintenance training would offer good value for money. Most cargo bikes are bought from European countries. This means there may be implications for the cost of bikes and supply chains once the UK has left the European Union.

Finally the industry requires support to professionalise and ensure customers view business services and logistics using e-cargo bikes as professional. This may include cycle logistics rider training qualifications, a British Standard for e-cargo bikes, and the use of smart technology to ensure secure delivery and tracking. Support should be given to move away from the gig economy towards fully employed, trained and insured riders.

c. Develop a network of cargo bike libraries across the UK through time limited investment with a stated aim of transitioning these into self-financing leasing schemes

Covid-19 has hit local businesses and organisations badly and many have had to or are in the process of adapting their business models as a result. High streets and retailers are especially affected and many have been trialling home deliveries to complement their offer.

Cargo bike libraries allow businesses, organisations and community groups to borrow a cargo bike or e-cargo bike for free to trial how cargo bikes can fit into their business model. A cargo bike library can provide a variety of bikes to explore options, train riders and assist with route planning and signpost organisations to potential funding and opportunities. In 2019 the Edinburgh cargo bike library was used by over 20 businesses who have ridden over 5,000 miles.

An investment programme should be launched to set up a network of cargo bike libraries across the UK. This investment should be for a maximum of five years within a longer term goal of transitioning cargo bike libraries into cargo bike leasing schemes which are self-financing through revenue generation.

2 Incentivise the use of e-cargo bikes for business transport

We need to:

a. Allow customers to choose cycle delivery

We would also recommend ensuring customers (people and businesses) have a choice wherever it exists to specify delivery by cycle when ordering goods and services. For example food delivery apps often use a fleet of people who may drive a car, motorbike or cycle to deliver food. And many supermarkets are trialling the use of e-cargo bikes for home deliveries alongside vans.

A simple option at checkout to allow customers to deliver by cycle would help incentivise demand for ordering goods that are net zero, and make their communities safer and less polluted.

b. Introduce local schemes that reduce the use of motor vehicles in urban areas

Urban leaders could also do more to support e-cargo bike deliveries as part of wider efforts to make their cities better for people and reduce motor vehicle use for journeys that could be walked, cycled or use public transport.

This should include, where appropriate:

- Leadership by supporting local procurement of e-cargo logistics firms by the council itself to meet their ambitions for net zero;
- Taking adequate steps to reduce air pollution through clean air zones and low emission zones in cities;
- Increasing the cost, better management and enforcement of parking, including banning pavement parking for loading and unloading across the UK;
- Introducing Low Traffic Neighbourhoods to reduce rat running of motor vehicles in low residential neighbourhoods;
- Introducing more bus gates and pedestrianised areas in city and town centres and local high streets to reduce motor vehicle use permanently or at specific times;
- Consideration of local road pricing and congestion charge schemes.

It is important when taking steps to reduce motor vehicle use that these are fair and that funds generated through schemes are used to improve public transport, walking and cycling.

c. Consider introducing a levy on online shopping, designed to stimulate efficiency, van-use reduction and deliveries in urban areas by e-cargo bikes

There are suggestions that the Government is exploring the idea of introducing a levy similar to that for plastic bags placed on online deliveries.[14]

The UK government should undertake research to consider introducing a levy on online deliveries designed to stimulate more efficient operation, curtail the growth in van traffic, and invest in alternatives, like e-cargo bikes.

Goods are almost always cheaper online as a result of cheaper costs and reduced taxes. A levy could help to put high street shops onto a more level playing field with online companies that do not pay high street business rates and rents therefore supporting the local economy, communities and levelling up.

Arguments have been made in the past that online ordering is more efficient than people traveling to shops. However this is changing as online deliveries become ever more convenient. People traditionally make a trip to the high street or shopping centre to make multiple purchases. Now we are lured by unlimited free shipping, next-day and same-day delivery and an impulse-buy one item at a time, spread out over many days and many separate deliveries. The exception to this is probably the supermarket shop where goods are still bulk purchased.

If a levy was to be introduced rigorous assessment of the implications for increasing or reducing motor vehicle use should be undertaken. We would also suggest exemptions are made for small businesses and potentially in very rural and isolated areas where home delivery can be important.

Money raised through a levy should be reinvested in supporting our local high streets or designed to help businesses transition from vans to e-cargo bikes for deliveries in urban areas, for example through cargo bike libraries and leasing schemes.

3 Reduce the need for van use and make logistics more efficient

We need to:

a. Adopt a 20-minute neighbourhood planning principle to help people walk to and more easily access local services and shops

Living in proximity to everyday needs and services can help increase access for everyone. It also helps to reduce the need to travel longer distances and can encourage walking. Over 80% of trips over five miles are taken by car whereas over 80% of trips less than a mile are walked.[15] Living in closer proximity to services and shops can reduce the need to drive or order online.

Cities like Melbourne, Paris and Copenhagen are beginning to design neighbourhoods around a 20- or 15-minute planning principle and the Scottish Government has recommended 20-minute neighbourhoods as an objective within its current programme for government.

We recommend that planning across the UK, both locally and nationally, adopts the principle of a 20-minute neighbourhood. Forthcoming planning reforms in England should facilitate the delivery of neighbourhoods which are walkable and contain places people need to walk to.

b. Consolidate deliveries to reduce van use in urban areas and make deliveries more efficient

Steps should be taken to ensure deliveries are, wherever possible, consolidated in urban areas therefore enabling deliveries across different companies to be combined and delivered at the same time.

The Government should seek to set-up local micro-consolidation centres or 'nests' for delivery of the 'last mile' zero emission vehicles, especially e-cargo bikes in urban centres. Steps should be taken to ensure they are attractive for businesses to use, for example through an online delivery levy. This has been successfully trialled in Berlin and elsewhere.[16]

Consolidation of local deliveries from high street retailers is also gaining popularity. People either online or in person can select items from a variety of different retailers in a local area and a service is used to deliver these goods to your home, typically by e-cargo bike. This makes local shopping more inclusive for people who may struggle to carry multiple items and do not want to drive or cannot access a vehicle. Financial support and infrastructure to assist these schemes would be helpful.

c. Electrify motor transport so that all new vans are electric by 2030

In addition to reducing the use of motor vehicles, if we are to reduce GHG emissions from transport we need to urgently stop using motor vehicles powered by diesel and petrol. Norway has shown this is achievable in a relatively short timeframe with the right government incentives.

Schemes to support a transition to electric vehicles should also address van use especially in urban areas and additional support must be given to businesses to transition to electric, especially if e-cargo bikes are not as useful for particular journeys or sectors. Overall it is essential that a transition to electric cars goes hand in hand with driving less and traffic demand reduction goals.

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