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MEETING THE WELFARE AND PARKING NEEDS OF GOODS VEHICLE DRIVERS AND RIDERS

Summary Briefing Report

Technical Report ENG-TR.037

June 2023

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University of Westminster

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and Riders – Summary Briefing Report**

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1. Introduction

This summary briefing report investigates the parking and welfare needs of goods vehicle drivers and riders working in the UK freight transport industry.

It investigates the overnight parking requirements of long-distance drivers and how, for a long period of time, these have not been adequately met and provided for by the public and private sectors. Despite the fact that policymakers have increasingly legislated against heavy goods vehicle (HGV) overnight parking on-street since the 1970s on grounds of impacts on traffic, road safety and nuisance and disturbance to residents they have failed to ensure that sufficient overnight parking space, and which is of a suitable quality and price, has been provided for HGV drivers. This problem is becoming increasingly acute over time and is likely to be an important factor in the shortage of long-distance drivers.

UK-registered articulated HGVs accounted for 93% of tonnes lifted and 93% of tonne kilometres of all UK-registered HGVs on journeys with haul lengths over 200 km in 2021/22 (calculated from data in Department for Transport, 2023). It is articulated HGVs making these longer journeys that are most likely to make use of overnight parking facilities.

The report also examines the day-time parking needs of goods vehicle drivers in order to comply with mandatory rest break legislation. It discusses the access to toilets and handwashing facilities required by all those delivering and collecting goods and providing services but which are unfortunately often not made available to them.

It also investigates the welfare needs of those providing goods collection and deliveries as part of the growth in online shopping (especially for parcels, groceries and meals) the vast majority of whom work in urban areas with some using motorbikes, mopeds, bicycles and cargo bikes as well as working on-foot in addition to those using light goods vehicles (LGVs – often referred to as vans) and HGVs. This includes consideration of their needs for rest areas and safe, secure vehicle parking facilities. Those without enclosed vehicles require covered rest areas when waiting between job allocations and when taking breaks as well as safe, secure vehicle storage locations while they obtain food and drink in cafes and shops and when making deliveries.

In helping the reader to understand these issues, the report begins with an explanation of these parking and welfare needs of the various types of workers delivering and collecting goods and providing services. It also provides a brief history of the provision of overnight parking facilities for long-distance HGV drivers on motorways and other roads, explaining the views of successive UK Governments as well as the provision (or lack of) these facilities by local authorities and private sector operators.

In this report, dedicated facilities where HGV drivers can park their vehicles and rest in the course of their work are referred to as 'lorry parks'. This term was being used in the UK by the late 1950s when lorry parks first emerged. This term has the same meaning as 'truck stop' which is now also commonly used in the UK as a result of the proliferation of American culture. The term 'HGV' is used in the report to refer to heavy goods vehicles that make use of lorry parks.

This report has been produced as part of the Centre for Sustainable Road Freight (SRF – EPSRC grant number: EP/R035148/1). A full report and slideset are also available from the SRF website that accompany this report. Further details about the SRF project are available at: <http://www.csrf.ac.uk/>

2. Goods vehicle parking and other driver welfare considerations

Drivers of goods vehicles (both heavy and light goods vehicles - HGVs and LGVs), riders (using bicycles, cargo, bikes, mopeds and motorcycles) and on-foot goods and service providers (such as parcel porters and engineers) require various facilities and amenities as part of their working day. These facilities vary depending on the type of work that the driver/rider/on-foot provider is involved in. Whereas some operations involve driving long distances and being away from home for a night or more, others involve working near where the driver lives and then going home every night. Those drivers that spend nights away from home, by definition, require additional facilities than those who do not (including somewhere to park the vehicle, obtain food and drink, and toilet and washing facilities).

The law requires that goods vehicle drivers take rest breaks if they exceed specified hours of driving per day (which apply to most of those involved in goods delivery and collection work). Delivery personnel not using LGVs and HGVs will also require rest during the course of a working day. HGVs are fitted with tachographs to ensure that this happens, while drivers of LGVs are limited only to maximum working/driving hours, with no legal requirement or means of independently verifying any rest breaks. Goods vehicle drivers can also require stopping facilities when they are delayed by transport disruptions (such as traffic accidents, incidents causing road/route closures, and ferry service disruption).

All personnel using vehicles to provide goods or services will also require places to park their vehicles during the course of their work. All drivers and riders need access to food and drink, and the use of toilet and hand washing facilities during the working day. Drivers and riders engaged in making instant deliveries of groceries and meals in urban areas that have been purchased online, as well as same-day parcel couriers, often have to wait between deliveries for their job to be allocated, and therefore require suitable waiting locations. Those driving LGVs in order to primarily provide a service rather than to collect or deliver good (such as plumbers, electricians, utility engineers and builders) will visit fewer addresses per working day than those delivering or collecting goods, and therefore require fewer parking spaces but have longer vehicle dwell times at the parking locations they use.

Despite the fact that goods vehicle drivers, riders (of bicycles, cargo bikes, motorbikes, and mopeds) and on-foot personnel) delivering and collecting goods and providing services require stopping, resting and welfare facilities this does not mean that are necessarily provided in the locations in which they work by the businesses they work for, the businesses they collect to and deliver from, by private providers or by local authorities. In fact, many of these requirements of drivers, riders and on-foot personnel are currently not well provided for by either the private or public sector.

The key facilities and amenities required in the course of their work by those providing goods delivery/collection and servicing tasks are:

- Vehicle stopping space to carry out goods deliveries/collections or servicing work (either loading/unloading or parking depending on nature of work),
- Vehicle stopping places to take mandatory and other daytime rest breaks from work,
- Eating and drinking facilities,
- Toileting and washing facilities,
- Overnight vehicle stopping facilities.

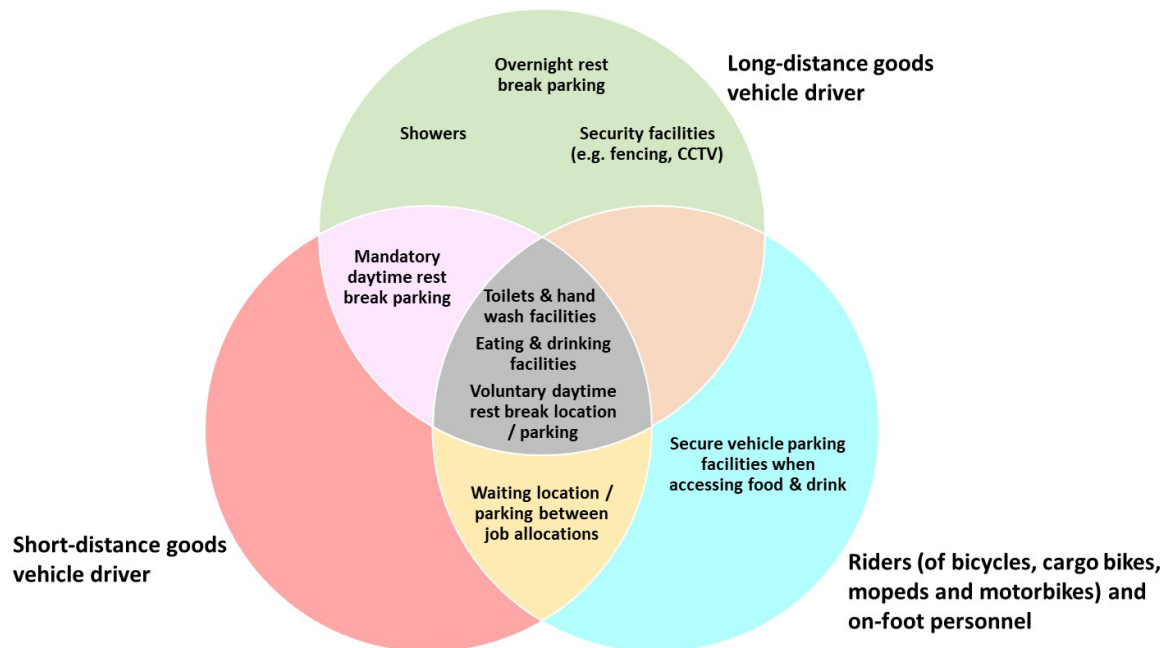
These stopping, comfort and resting requirements can occur in a range of different instances as part of a driver's daily work:

- On the journey while driving the vehicle,

- Where deliveries/collections and servicing tasks are made,
- While waiting between job allocation / deliveries and collections,
- Overnight (if working but not driving – mostly required by long-distance HGV drivers).

Figure 1 shows the facilities required drivers, riders and on-foot personnel for stopping locations and welfare provision in various types of goods delivery/collection and servicing work.

Figure 1: Facilities required for vehicle stopping and welfare provision by drivers, riders and on-foot personnel in goods and servicing work



These vehicle stopping, resting and welfare requirements can be provided for at official, dedicated locations specifically equipped to provide for these facilities or in unofficial, non-specific locations.

On-street vehicle stopping locations (whether permitted or not - such as in lay-bys and on-street in industrial estates) are often less safe and more likely to be associated with crime against the driver and their vehicle/goods carried. Secure parking locations (especially for overnight stops) helps to prevent theft of vehicles and cargo, as well as providing suitable and safe working conditions for drivers. The lack of access to toilet facilities for drivers, riders and on-foot personnel in the course of their work can result in them having to illegally relieve themselves in public places or use bottles for this purpose in their vehicles. Riders and on-foot personnel who have to wait in public places between job allocations (such as on streets or in public parks etc.) are subject to greater risk of crime (to them, their vehicles and loads) as well as having no protection from the weather (such as rain, wind and excessive sun).

The various vehicle stopping locations that may be used by a driver for daytime rest and overnight stops include:

- At a lorry park (either a Motorway Services Area, a Trunk Road Services area, an independent lorry park or a local authority lorry park),
- At a warehouse/distribution centre operated by the employer/hirer of the worker,

- At a building occupied by shippers/receivers that deliveries / collections are made to and from or at which services are provided,
- At a distribution centre / operating centre provided by a freight transport operator that makes this available commercially or via a collaborative arrangement with others,
- On-street on the public road network (especially in a lay-by or at the kerbside in an industrial estate in the case of HGVs),
- In a public place (e.g. bench, park etc. for a cycle courier).

Some operators use independent lorry parks close to the area in which they live and/or work as an operational base, listing this as their home base on their Operator's Licence.

The locations at which refreshment and comfort (toilet and handwashing) facilities can be provided to drivers during their daily work include:

- At a lorry park,
- At a warehouse/distribution centre operated by the employer/hirer of the worker,
- At a building occupied by shippers/receivers that deliveries / collections are made to and from or at which services are provided,
- At a distribution centre / operating centre provided by a freight transport operator or other business with suitable off-street space that makes this available commercially or via a collaborative arrangement with others,
- In a private café, restaurant, shop or other private facility not connected to the driver's work (e.g. shopping centre etc.),
- At public toilets.

The greater the duration of stay of a goods vehicle, the more facilities that are ideally provided there (such as toilets, showers, food availability and driver/vehicle security). However this is not always the case, with even many lorry parks offering only basic facilities. In general, the shorter the vehicle stopping time, the shorter the distance that a driver will be able or willing to drive to access it. Some HGV operators inform the driver about where they should stop for daytime or overnight stops for reasons of cost, security, vehicle insurance requirements and route deviation, while others leave this to the discretion of the driver. For some drivers, the costs of using parking facilities and obtaining refreshments are paid for by those they are working for, while for other drivers they have to pay for these facilities themselves. This is likely to have an important bearing on the driver's parking location choices for breaks. Even if these driver expenses are paid for by those they are working for, if this takes the form of drivers having to pay these costs themselves and receiving fixed rates of expenses regardless of whether or not they were incurred, this can result in drivers choosing not to purchase these services and instead treat these expenses as income.

3. History of refreshment facilities and overnight lorry parks for HGV drivers

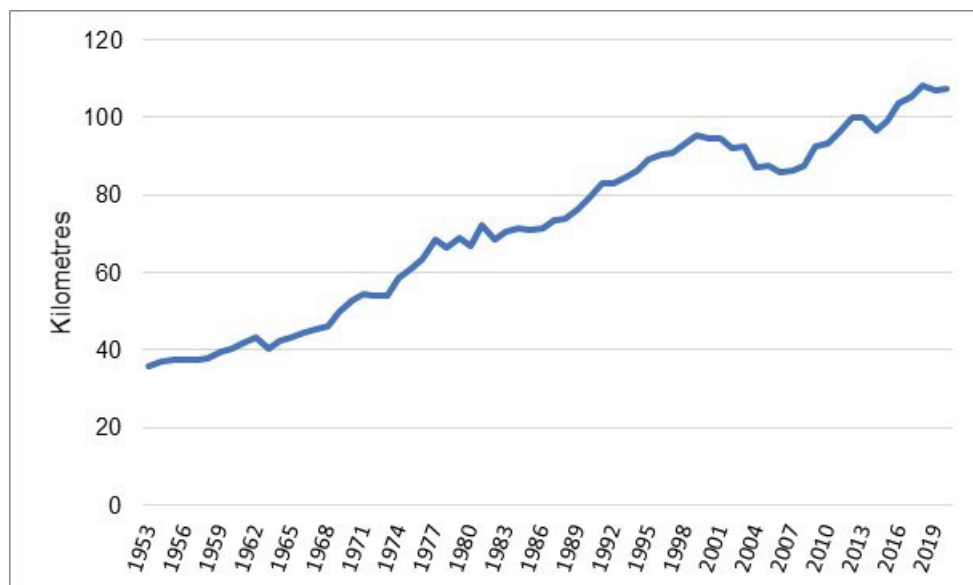
In the early days of horse-drawn road freight, carriers used inns and taverns in towns as staging posts and using stabling, and eating, drinking and sleeping there. With the development and uptake of motorised goods vehicles, by the 1920s, drivers of these vehicles travelled the country's A-roads along which commercial proprietors provided transport cafes. Offering basic food and drink, these establishments came to be commonly known as 'caffs' and 'greasy spoons', some were brick buildings, some cabins, while others were made from converted vehicle bodies. The better equipped cafés provided on-site parking, toilets and washrooms with some also offering overnight accommodation. These were important facilities for the long-distance HGV driver, especially given the slow vehicle speeds (with maximum speeds of 20 miles per hour until 1957 and 30 miles per hour thereafter for HGVs with unladen weights over 3.5 tonnes), the long journeys they had to undertake, the physical effort of driving

these vehicles and the lack of protection they provided from hot and cold weather (Armstrong, 2003).

In the initial decades of long-distance HGV driving, drivers were often accompanied by mates who helped the driver and provided them with company. When mates became less common in the 1950s and 1960s, the transport café became an important place of contact with others for HGV drivers given the lonely nature of the work. These cafes were also frequently used as change-over points for drivers, with trailers swapped between vehicles to reduce each drivers' time spent on the road. By the 1960s more than 1000 transport cafes were identified throughout the country in surveyed work. A 1960s study found that these cafes had generally become larger, more impersonal, cleaner and more expensive over the intervening decade. The study found younger drivers were most likely to use cafes, while older drivers were often prone to stop in lay-bys to consume pre-prepared sandwiches and tea from a flask (Hallowell, 1968).

In the 1960s, overnight stopping facilities for long-distance goods vehicle drivers ranged from small houses where drivers slept in dormitories with several beds, to large transport hostels with small, individual 'cubicle' bedrooms also providing hot running water, showers and a television lounge, with the latter described as "the height of luxury". Proprietors did what they could to make drivers feel comfortable and welcome, but some ran poor, scruffy, dirty establishments. Overnight accommodation in the late 1960s was generally better than what had preceded it profit margins for proprietors of these establishments must have been limited given what drivers were able and willing to pay for food, bed and breakfast (Hallowell, 1968).

Figure 2: Road freight transport average length of haul in Britain, 1953-2020



Source: calculated from data in Department for Transport, 2021a.

Several factors led to changes in the management of HGV on-street parking and the provision of lorry parks. These include the growth in long-distance HGV journeys (due to more powerful vehicles with greater dimensions and hence carry capacities becoming available and legal, resulting in lower operating costs per unit of goods carried, together with increased speed limits), the inadequacy of facilities offered and off-street parking space at many transport cafes and hostels, the rising number of complaints from the general public about the impacts of HGV parking in the vicinity of their homes, and the rising crime against HGVs and their loads when parked in insecure on-street locations. The existing network of transport cafes and the facilities

they offered in both urban and non-urban locations did not adequately provide for the needs of the growing number of long-distance HGV drivers who needed overnight stopping facilities. This resulted in a substantial growth in the number of long-distance HGV drivers parking on-street.

Concerns and complaints from members of the general public about the visual and noise impacts of HGVs parked on-street in urban and rural areas escalated through the rest of the 1950s and 1960s. From the early 1960s on, as the number of HGVs grew, an increased rate of HGV cargo and vehicle thefts took place. This was most common when vehicles were parked, especially overnight. This caused freight transport operators to become increasingly concerned about the security of their vehicles and the goods they carried for their customers. This led to calls from some operators for secure lorry parks.

Figure 3: Markham Moor lorry park and diner on the A1



Source: Ian S, 2012,
https://commons.wikimedia.org/wiki/File:Markham_Moor_lorry_park_and_diner_-_geograph.org.uk_-_3049901.jpg

Jointly, these issues led to the need for national government to consider on-street overnight HGV parking, and for national and local government as well as businesses to consider the provision of stopping facilities for HGV drivers with off-street parking, sleeping and catering facilities. This led to the emergence of facilities referred to as lorry parks from late 1950s onwards. Some were established by private businesses, some by local authorities and some with both acting together. The Greater London Council (GLC) began considering overnight parking provision for HGVs in 1966, working with London boroughs to identify solutions. GLC lorry park trials commenced in 1968 in conjunction with National Car Parks, which had been commercially operating six lorry parks in London since the mid-1960s (Commercial Motor, 1966, 1967, 1968).

The implementation of traffic legislation by the UK Government in 1969 permitted local authorities to apply to central Government to restrict on-street parking on amenity grounds (i.e. their visual and noise impacts in addition to the existing grounds of safety and traffic disruption). This led to local authorities, especially those in urban areas, introducing restrictions on HGV on-street parking on these grounds, gradually removing much former overnight parking space over the next few years. However, despite introducing night bans on

HGVs parking on-street, relatively few local authorities introduced lorry parks to compensate for lost on-street parking space.

As part of the 1971 Highway Act, the UK Government announced that it would locate and buy sites to establish a national network of approximately 50-60 large secure lorry parks in England (outside of London), which would be leased to and operated by companies on its behalf, similar to Motorway Service Areas, with a view to selling these leases to operators in the longer term. It was expected that this national network would have to provide capacity for 15,000 HGVs. Various companies and consortia expressed interest in winning these sites. The Government also announced that in addition to this national network of lorry parks provided by central Government, local authorities would be expected to provide smaller lorry parks (Commercial Motor, 1971; Department of the Environment, 1971; Speed, 1973).

Figure 4: Lincoln Farm Lorry Park on the A452



Source: Robin Stott, 2011
https://commons.wikimedia.org/wiki/File:Lorry_park_adjoining_Lincoln_Farm_Caf%C3%A9_-_geograph.org.uk_-_2587354.jpg

However, in 1974, the UK Government announced that it was scaling back the ambition of this national network of lorry parks and then stated that it had no statutory powers to finance lorry parks which were, it said, entirely the responsibility of local authorities. Later in the same year, the Government stated that although lorry parks were much needed, few were being developed due to their commercial unattractiveness, as well as difficulty in obtaining suitable sites (Commercial Motor, 1974a, 1974b, 1974c).

By 1977, it was reported that the number of HGVs parking on-street in London had been reduced by three-quarters through the implementation of night-time parking restrictions. A similar situation occurred in urban areas across the rest of the country but with little off-street lorry park space provided by local authorities.

In addition to government plans and policies concerning lorry parks, commercial operators set up independent lorry parks in or near urban areas and in close proximity to the trunk road network if these were deemed to be commercially viable.

The gradual development of the motorway network in the UK from the late 1950s together with the provision of motorway services proved attractive to HGV drivers given the faster permitted vehicle speeds (70 compared with 40 miles per hour). To prevent there being insufficient

facilities for HGV drivers on these new roads for their daytime and overnight stops that would require them to deviate off these first motorways to independent, family-run transport cafes and lorry parks on A-roads, the UK Government had to take action. This led to the Government acquiring several small plots of land for potential service stations and surveying businesses about their preferred locations and their plans for such sites. The Government encountered difficulties obtaining planning permission for the development of these service stations due to objections by locals.

Figure 5: Developments in HGV driver facilities and on-street HGV parking restrictions in the UK, 1920s-1970s

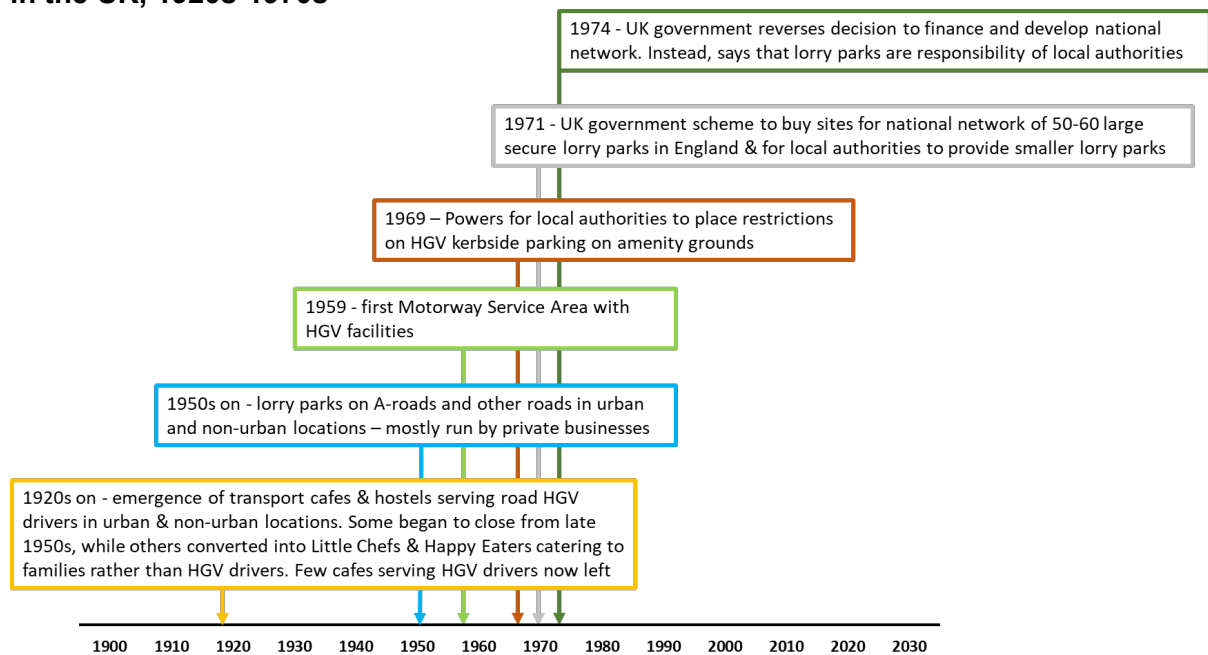


Figure 6: Lorry park at Hilton Park services on the M6



Source: Steve Daniels, 2009,
https://upload.wikimedia.org/wikipedia/commons/e/e7/The_lorry_park_at_Hilton_Park_services_-_geograph.org.uk_-_1576256.jpg

When motorway services opened on the initial motorways (M1, M2, M5 and M6) they were found to be far too small in size for the number of vehicles choosing to stop at them. The Department for Transport compulsorily purchased 21 parcels of land adjoining these new motorways with the intention that they would be used to provide motorway welfare facilities for drivers. After a review of these facilities in 1978, the private sector bodies operating them were provided with 50-year leases for these sites by the Department for Transport at a peppercorn rent (Moto Hospitality, 2021).

In the initial period of Motorway Service Areas, the demand for overnight parking at them from HGV drivers was low as they offered no sleeping accommodation and instead drivers visited cafes and hostels for rooms. However, with the introduction of the sleeper cab, demand for overnight HGV parking increased, with drivers able to sleep in their vehicles. Some operators developed separate parking areas within motorway service areas for HGVs, together with separate overnight accommodation services for car and HGV drivers.

In 1978, a new Government announced that it was no longer keen on its involvement in acquiring land and planning permission for these services and its continued ownership of them. During the 1980s, the problem of lack of overnight parking space for HGVs worsened with many Motorway Service Areas reaching their HGV capacity on a regular basis.

In 1992, the UK Government deregulated the provision of motorways services, meaning that private businesses could own these sites and apply to open new ones, despite their planning and operating requirements remaining subject to government control. Motorway Service Area operators began to acquire both freehold sites and sites leased from commercial landlords rather than from the Government. Since, 2008 it has been permitted for businesses to develop dedicated motorway lorry parks, but none have been established to date.

Figure 7: Lorry park at South Mimms Services on the A1M



Source: Antony Dixon, 2011
https://commons.wikimedia.org/wiki/File:Lorry_park_at_South_Mimms_Services_-_geograph.org.uk_-_2698750.jpg

The rise of the motorways and the service stations along their entire length resulted in the gradual decline of transport cafés and some lorry parks along the A-road network. As they increasingly used motorways, HGV drivers became reluctant to travel far off the network to A-road facilities they used to frequent. However, some drivers have continued to prefer to use independent lorry parks on A-roads and in other non-motorway locations or the remaining local authority lorry parks, for reasons including their perceived service level, their lower prices and their convenience given the route being taken by the driver. Ever-more spacious and luxurious in-cab and onboard sleeper facilities for drivers have also resulted in far greater driver willingness to spend more rest time and overnight stops in their vehicles, at lorry parks or Motorway Service Areas, so even if using these places to park potentially not requiring a bedroom in a hotel or hostel.

For refreshments, daytime and overnight stops, HGV drivers can choose between motorway services alongside the motorway network with direct access roads, lorry parks located on other major trunk roads, those lorry parks and remaining transport cafes located within a few miles of the Strategic Route Network (SRN)¹, local authority lorry parks (of which a few remain but which often provide only daytime refreshments if at all), and refreshment trailers in lay-bys. Some instead opt to stop overnight in lay-bys and at the kerbside on public roads in industrial estates.

Successive UK Governments over several decades have stated that they want no involvement in subsidising, providing land for, or operating lorry parks (either in Motorway Service Areas or other types), instead viewing them as a facility run by the private sector as profitable businesses. Local authority lorry parks have also declined in number, with them often not viewing it as a priority, concerned about the operational costs, and keen to realise the financial returns from development for other uses. Given the relative spending of car and HGV drivers and the space both types of vehicle require, Motorway Services Area operators are inevitably far more interested in providing space and services for the former rather than the latter.

The cost of operating dedicated lorry parks on trunk and other A-roads together with the revenue they generate has led to some struggling to survive or closing and the land being developed for other uses, with relatively few new ones opening. Although the total HGV space available at all types of lorry park has risen in the last decade it continues to fail to provide sufficient space to accommodate all HGVs requiring overnight parking. In an audit of overnight HGV parking in England in 2022, 34% of HGVs were found to be parked in lay-bys and on-street in industrial estates rather than in lorry parks of any type (calculated from data in AECOM, 2022).

The vast majority of lorry parks whether on Motorways, other Strategic Roads or elsewhere are operated by private operators who make decisions about the location and size of the site, the facilities and level of security that will be provided, and the method of privately funding it. The site developer has to apply to the local planning authority for planning permission to carry out such a development. There is a substantial cost associated with preparing such planning applications. Many such applications are rejected due to unfavourable views from local residents about such prospective developments, and the cost of resubmissions and alterations required to proposed schemes in order to attempt to gain permission is often also considerable. In addition, substantial time is usually involved from the submission of a planning application to the announcement of the final decision by the local planning authority.

Given the attributes of modern lorry parks, they often require considerable land, which is expensive to acquire. The construction and infrastructure costs are also substantial given their

¹ Strategic Road Network (SRN) - the road network in England maintained and operated by National Highways - formerly known as the Highways Agency. It includes all motorways and major trunk roads.

power, water, sewerage, building and parking requirements. Operating costs can also be considerable given the staffing requirements and business rates for such sites considerable. In addition, the financial returns to be made from operating Motorway Service Areas and especially dedicated lorry parks is relatively low, given the profitability of the road freight transport sector together the space required per HGV parking space and the relatively low spend per driver/parked vehicle). Motorway Service Areas and other roadside facilities catering to car users are typically more profitable than services provided to HGV drivers, as the latter usually travel with all their belongings, sometimes including food and drink, and therefore make fewer purchases of products and services when stopping either overnight or during the daytime. The main source of revenue from HGV drivers using lorry parks is usually the parking charge. Therefore, such HGV sites are often not deemed particularly financially attractive by private sector investors.

New lorry parks are estimated to have at least a twelve to fifteen year payback period which discourages developers (AECOM, 2022). Land that could be used for lorry parks is instead often used for other purposes, given the relative rates of financial return for other land uses. In addition, some lorry parks operators are encouraged to sell by developers who wish to acquire the site for other, more profitable development uses. Some local authorities that ran lorry parks have also closed these for redevelopment as more financially attractive uses. There were only sixteen local authority lorry parks in England in 2022 (out of a total of 328 lorry parks) and even where these do exist they tend to provide only basic facilities (with 50% offering only parking, and 25% having only parking and toilets in England in 2022 – AECOM, 2022). Such alternative land use development potential for prospective or existing lorry parks is often heightened by their proximity to the Strategic Route Network (SRN) and the quantity of passing traffic attracted by these major traffic routes with hotel, office, business park and retail park development options. Local highway authorities are not legally required to provide off-street overnight parking facilities for goods vehicles even if they have restricted on-street overnight HGV parking. Given their lack of available funding and a lack of prioritisation of their importance, few local authorities are considering developing lorry parks.

These commercial issues concerning lorry park provision and operation (high land purchase prices, investment and operating cost requirements, and lack of sufficient expenditure by HGV drivers using them) as well as the costs and delays developers face in trying to obtain planning permissions for a new lorry park need to be addressed.

In December 2022, the Department for Transport published revised guidance for HGV parking facilities on the SRN in England. This revised circular acknowledged the shortage of parking facilities for HGVs at certain times and the need to expand the HGV parking spaces at lorry parks on the SRN (either at existing or new sites) to alleviate this. It also states that existing lorry parks (including closed ones) “must be retained for their continued and future use unless it can be clearly demonstrated that a need no longer exists”. Where need for more HGV parking space is identified, the circular states that National Highways “will work with relevant local planning authorities to ensure that local plan allocations and planning application decisions address the shortage of HGV parking on or near to the SRN” (Department for Transport, 2022a).

4. Overnight HGV parking

The supply of and demand for overnight lorry park spaces has not been well matched across England for the last fifteen years for which data has been available and probably for far longer. Lorry parks have been at full capacity for a considerable time in some English regions, and the situation is worsening across England as a whole, with national lorry park utilisation at very close to critical levels in the 2022 audit. In 2022, 34% of all overnight HGV parking took place in lay-bys and at kerbsides in industrial estates rather than in lorry parks, with this figure

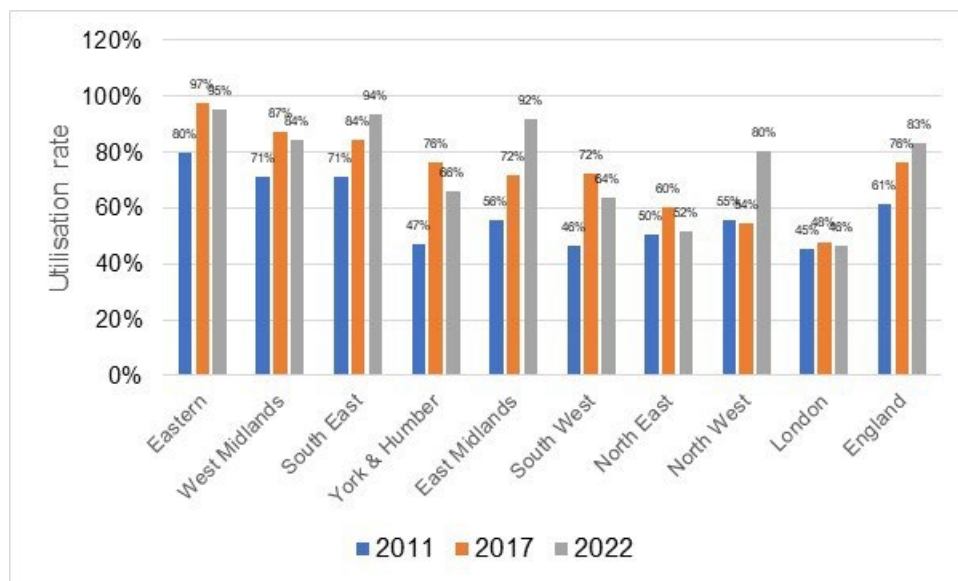
increasing over this fifteen year period (calculated from data in AECOM, 2022). As a result, facilities provided to and the welfare of long-distance HGV drivers has worsened over time.

While the total number of lorry parks and their HGV parking space in England has increased since 2011, this has been outstripped by the growth in HGV parking overnight in them. HGV parking capacity at lorry parks increased by 14% between 2011 and 2017 and 12% between 2017 and 2022). Meanwhile, the number of HGVs observed parked overnight at lorry parks during audits increased by 43% between 2011 and 2017 and 21% between 2017 and 2022 (calculated from data in AECOM, 2022).

This strong demand for HGV overnight parking in lorry parks has not been met by additional provision of parking space. This is reflected in the overall average lorry park overnight utilisation at lorry parks in England which has risen from 57% in 2006, to 61% in 2011, to 76% in 2017, to 83% in 2022 (which is just below the 85% threshold that is deemed to be 'critical' by the surveyors and the Department for Transport and which is used as the rate at which lorry parks are deemed to be full) (AECOM, 2006, 2009, 2011, 2017, 2022).

Lorry park utilisation rates were higher in all nine regions in 2022 compared to 2011, and in 2022 exceeded the 85% utilisation rate in the Eastern, Southern, East Midlands and West Midlands regions. Across England as a whole, 44% of lorry parks (143 lorry parks) were at a critical utilisation rate (i.e. deemed full at the time of the survey), with 14% having a serious utilisation rate and 42% an acceptable utilisation rate (AECOM, 2022).

Figure 8: Overnight lorry park utilisation rates in 2011, 2017 and 2022 by region



Notes:

Average utilisation per region masks individual lorry parks where demand exceeds supply.

The surveys were undertaken at 'average' times of year, utilisation figures would be higher in peak periods.

Source: calculated from data in AECOM, 2011, 2017, 2022.

In the 2022 audit, 100 of the 143 lorry parks across England that had a critical utilisation level (i.e. 70% of them) had a utilisation of 100% or greater (meaning that they had reached or exceeded the absolute maximum number of HGVs they could accommodate). The overall capacity of these 143 lorry parks with a critical utilisation rate accounted for 58% of total lorry park capacity in England as a whole (AECOM, 2022).

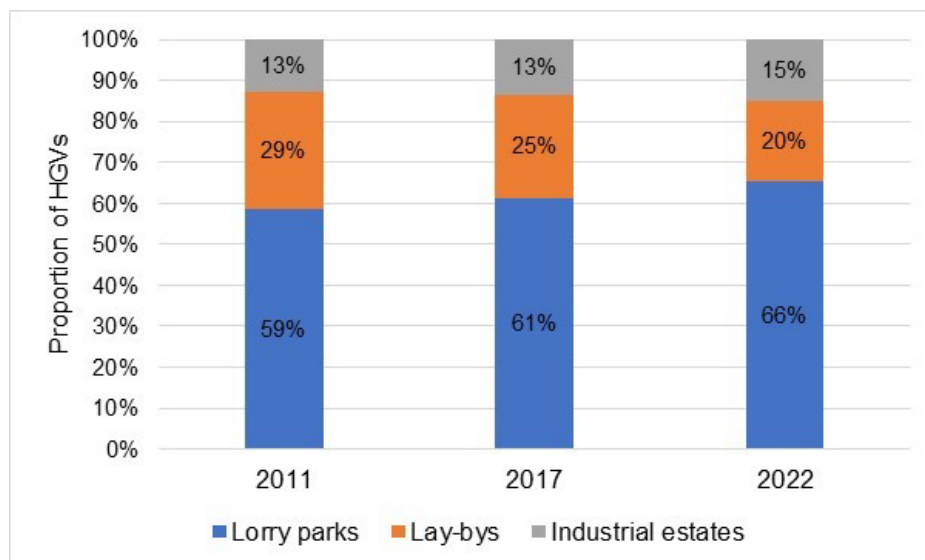
The facilities provided at a considerable proportion of lorry parks in England were rated as low in 2022, with 5% found to provide no facilities with only parking space available, 15% providing only toilets, 22% providing toilets and catering, 35% providing toilets, showers and catering, 16% providing toilets, showers, catering, lighting and a security fence, and 7% provided toilets, showers, catering, lighting a security fence and CCTV (AECOM, 2022). This is a rating of the facilities at lorry parks rather than the quality of those facilities.

The overnight parking charge tends to vary with facilities provided, type of lorry park and location. The average price for overnight parking in 2022 ranged from £11.67 in local authority lorry parks which tend to have few if any facilities, to £21.36 in independent lorry parks to £28.16 in Motorway Service Areas (AECOM, 2022). However, 39% of independent lorry parks had a facility rating of 4 or 5 compared with only 25% of Motorway Service Areas, indicating that the latter may benefit in its pricing from its proximity to the motorway network used by the vast majority of HGVs.

Audits indicate that HGV overnight parking in lay-bys and at kerbsides in industrial estates as a proportion of total HGV overnight parking (i.e. including lorry parks) in England fell between 2011 and 2022 (from 41% to 34% of all HGVs parking overnight). However, while lay-by parking has fallen (presumably due to the introduction of more overnight stopping restrictions and enforcement), overnight parking on-street industrial estates has increased (calculated from data in AECOM, 2022).

Given the increase in total HGVs parking overnight in England (in lorry parks, lay-bys and industrial estates) and the failure of the capacity of lorry parks to increase at the same rate there has been an increase in the proportion of total excess HGVs parked overnight in many regions (i.e. the difference between total HGVs parked overnight regardless of location and the total parking capacity available in lorry parks). There was a 4% excess of HGV overnight parking in England in 2011 (i.e. the proportion by which total HGVs parked overnight exceeded lorry park spaces). This rose to 20% in 2017 and then to 21% in 2022 (calculated from data in AECOM, 2022).

Figure 9: Overnight parking by HGVs in England by parking location type, 2011, 2017 and 2022 (proportion of total HGVs using each location type)

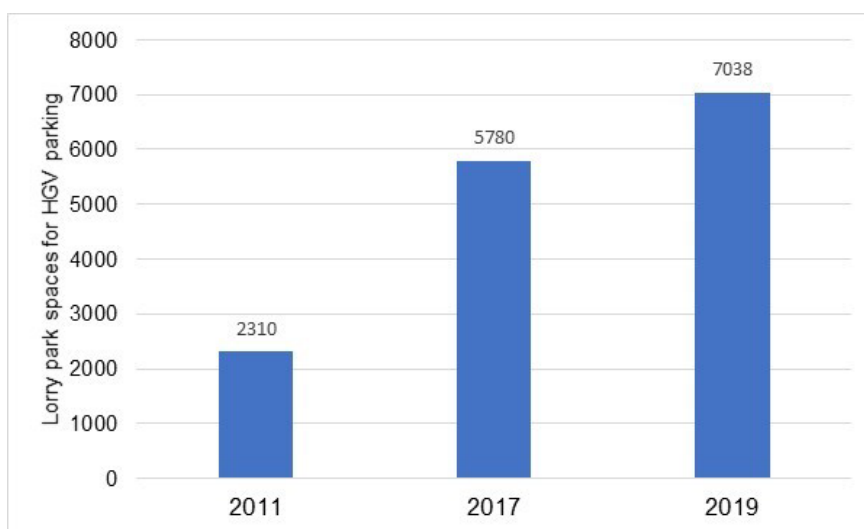


Note: Totals do not sum to 100% due to rounding errors. HGVs parked in lay-bys and on-street in industrial estates accounted for 41% of all HGVs parked overnight in 2011, 39% in 2017 and 34% in 2022.

Source: calculated from data in AECOM, 2011, 2017, 2022.

Given that it is assumed in the audits that lorry parks are full when they reach 85% utilisation, there has been a need for additional lorry park capacity if all HGVs were to be parked overnight in lorry parks in England since the 2011 audit. This shortfall of HGV parking spaces in lorry parks across England increased by 3,470 spaces (150%) between 2011 and 2017. It then increased by a further 1,258 spaces (22%) between 2017 and 2022. The additional lorry park space required in 2022 was approximately 200% greater than in 2011. There was a shortfall of approximately 7,000 overnight HGV parking spaces in lorry parks in England in 2022 (which was equivalent to 34% of all HGVs parked overnight) (calculated from data in AECOM, 2022).

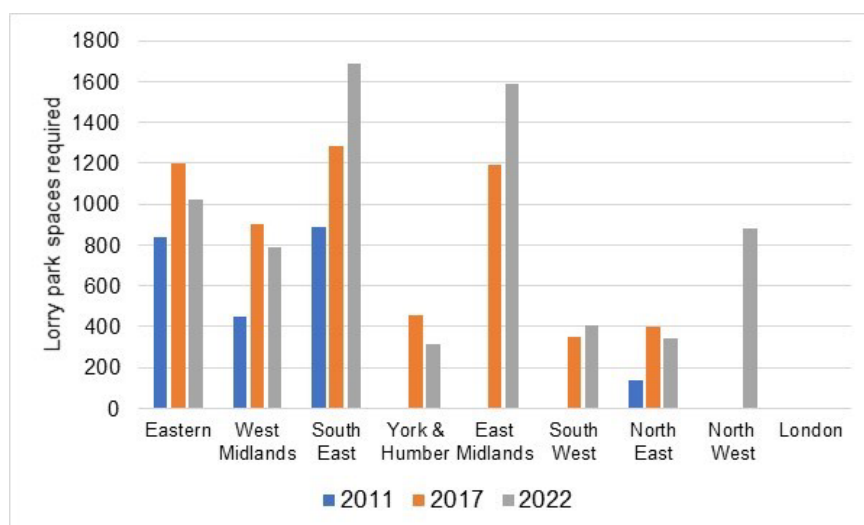
Figure 10: Additional HGV parking spaces required in lorry parks in England as a whole, 2011, 2017 and 2022



Source: calculated from data in AECOM, 2011, 2017, 2022.

In 2011, four out of nine regions of England required additional space in lorry parks in order to accommodate all HGVs in them. In 2017, this rose to seven out of nine regions, and in 2022 this rose again to eight out of nine regions requiring additional space in lorry parks (calculated from data in AECOM, 2011, 2017, 2022). The lack of lorry park spaces is greatest in the South East, East Midlands and Eastern regions (AECOM, 2022).

Figure 11: Additional HGV parking spaces required in lorry parks by region, 2011, 2017 and 2022



Source: calculated from data in AECOM, 2011, 2017, 2022.

The proportion of non-UK registered HGVs as a proportion of the total HGVs parked overnight in England has increased in each of the three surveys, from 18% in 2011, to 25% in 2017, to 27% in 2022 (AECOM, 2011, 2017, 2022).

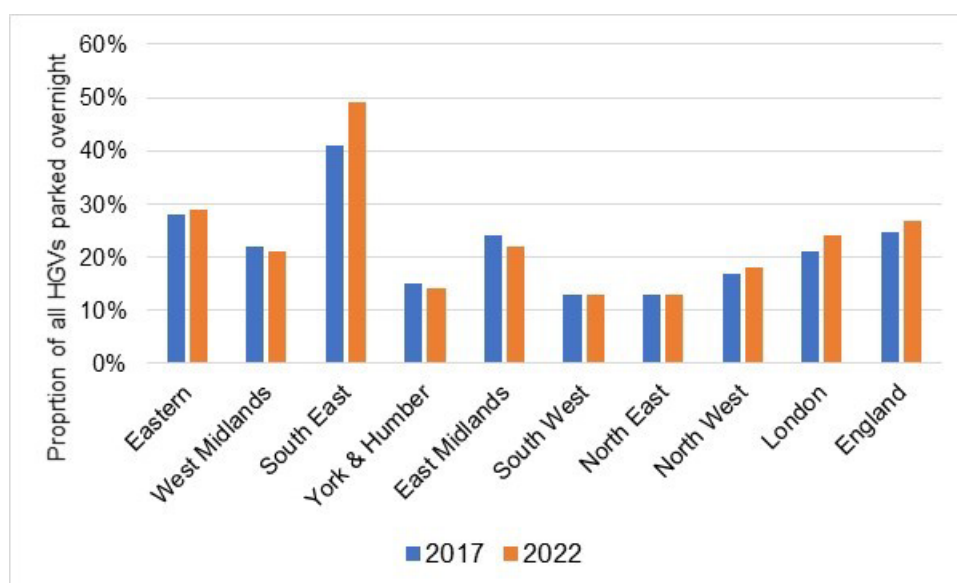
Figure 12: Proportion of UK and non-UK registered HGVs parked overnight in England, 2011, 2017 and 2022



Source: calculated from data in AECOM, 2011, 2017, 2022.

A greater proportion of non-UK registered HGVs use lorry parks than UK registered HGVs. This difference was especially marked in the 2022 audit, with 80% of non-UK registered HGVs found to use lorry parks compared with 60% of UK-registered HGVs. Consequently, a smaller proportion of non-UK HGVs park overnight in lay-bys and on-street in industrial estates than UK registered HGVs. The regions most used by non-UK HGV drivers for overnight parking were (in order of importance) the South East, the East Midlands and Eastern regions (calculated from data in AECOM, 2022).

Figure 13: Non-UK registered HGVs as a proportion of all HGVs parking overnight in England by region, 2017 and 2022

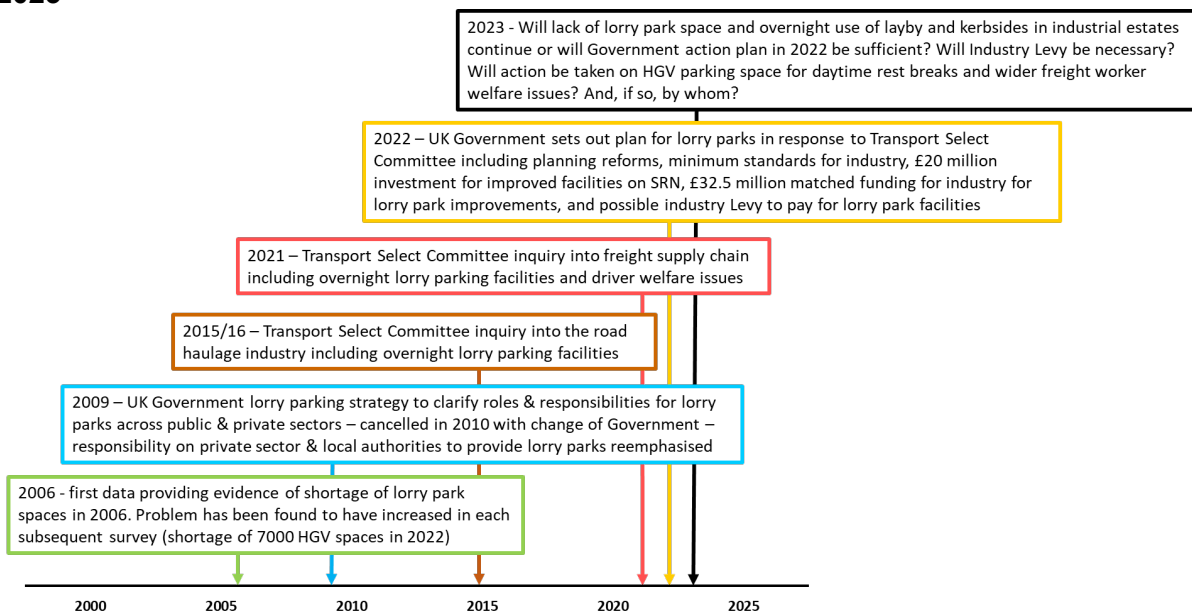


Source: calculated from data in AECOM, 2017, 2022.

Non-UK registered vehicles accounted for 38% of all HGVs parked at independent lorry parks, 32% of all HGVs parked at Motorway Service Areas, 19% of all HGVs parked at Trunk Road Service Areas and 12% of all vehicles parked at local authority lorry parks across England in the 2022 audit (calculated from data in AECOM, 2022).

Survey work with HGV drivers and road freight transport businesses also shows that satisfaction rates with Motorways Service Areas (MSAs) and other lorry park facilities in the UK (in terms of their value for money, cleanliness of facilities and availability) have been falling in recent years, with satisfaction rates for non-MSA lorry parks lower than those for MSAs (Transport Focus, 2018, 2020a, 2020b, 2021, 2022a, 2022b).

Figure 14: Developments in HGV lorry parks and driver welfare facilities in UK, 2000-2023



Shortage of overnight HGV parking spaces is by no means unique to England / the UK. In the EU it has been estimated that the shortage in HGV parking spaces increased from 16,000 in 2007 to 100,000 in 2018 (Panteia, 2018; de Leeuw van Weenen et al., 2019). In the USA, the shortage of overnight parking spaces has been noted and studied since 1996. The proportion of HGV drivers reporting regularly experiencing difficulties finding parking spaces rose from 75% in 2015 to 98% in 2019 (reported in Lockridge, 2022).

5. Research needs and considerations for overnight HGV parking

Overnight HGV parking audits in England in 2011, 2017 and 2022 have not reported on (and possibly did not study):

- The extent to which prices charged, location in relation to the SRN, and the range and quality of facilities provided at a lorry park are linked to its occupancy rate.
- The importance of various factors in HGV driver decision-making about the choice of lorry park they use (such as (lack of) available space, price, location from the SRN, security features, and the range and quality of facilities provided).
- The decision-making factors that result in HGV drivers decided not to use lorry parks and to instead park overnight in lay-bys or on-street in industrial estates (including consideration of the extent to which such drivers do so by choice or due to lack of space

in lorry parks). These include the financial support towards the cost of using lorry parks from their employers and/or customers, the form that this financial support takes and the method by which it is made).

The 2011 and 2017 audits did not report on the extent to which occupancy rates varied between lorry parks within each region (an occupancy rate at a regional level may hide significant differences between lorry parks within that region that could be due to price, location in relation to the SRN, security features, and the range and quality of facilities provided). However, the 2022 audit did so.

Ever-improving sleeper cabs and in-vehicle facilities may have fundamentally changed some drivers' views about the whether they want to use lorry parks at all and, if they do, the services that they require at them. Survey work with drivers using lay-bys and on-street in industrial estates could help gain insight into this.

Little, if any, recent research has studied the safety (in terms of driver safety from passing traffic and safety for other road users), security (in terms of crime committed against HGV drivers, their vehicles and loads), and traffic congestion impacts of HGV overnight parking in lay-bys and on-street in industrial estates. Such work is necessary to understand the dangers posed by these practices and measures that can be taken by drivers and enforcement agencies to ensure that unsafe practices do not occur and that drivers and other road users are not placed at undue risk.

Research from 2005 indicated that three-quarters of HGV drivers were reimbursed by the company they were working for overnight parking expenses or had some kind of allowance. However, this work also identified that some drivers were encouraged not to park in lorry parks if the vehicle was empty of goods. The quarter who had to meet their own parking costs were most likely to use lay-bys and kerbsides in industrial estates for overnight parking. However, those who receive such expenses at a fixed rate regardless of whether or not they used a lorry park may choose to treat this as income and not use a lorry park. Therefore, the method of this payment can also influence overnight parking choices (AECOM, 2005). Further up-to-date understanding of who pays for the use of a lorry park, the method of payment, and the effect of this on driver parking location choice is required.

Planning objections from local residents are often an important factor in the rejection of planning applications for new and extended lorry parks. Research is needed to understand whether these objections by local residents are based on objective traffic safety risks or disturbance impacts of having vehicles travelling in their locality.

No research has been carried out into whether HGV drivers are having to drive additional mileage to find overnight parking spaces (due to the shortage of them) and thereby adding to HGV mileage and its traffic, social and environmental impacts. Similarly, efforts to find overnight parking space or decisions by drivers to drive for less time than driver's hours permit due to their concern about finding somewhere to park may be having impacts of the efficiency and operating costs of long-distance road freight transport. This could be resulting in the need for more HGVs to be operating on the roads and for more HGV mileage to be travelled than would be necessary if overnight parking space was more readily available.

The business model for lorry parks does not appear to have been working well for several decades. This is due to a number of factors including land acquisition costs, the redevelopment value of lorry park sites for other more valuable uses (such as residential development), major difficulties in obtaining planning permission for lorry parks and the cost of doing so, and the price that HGV drivers and the road freight industry is willing or able to pay for lorry park services (especially given the industry's low profit margins). These issues need to be addressed in joint efforts between the UK Government, local government, lorry

park developers and operators, the users of lorry parks (road freight transport businesses and other businesses employing drivers and paying for drivers to use lorry parks), and insurers and shippers of goods.

Despite the statements made by the UK Government in 2021 in 2022 about its short term actions and longer term plans to address the capacity shortfall at lorry parks (Department for Transport, 2021b, 2021c; UK Government, 2022) it remains to be seen if it is truly committed to solving this problem given the history of similar statements made by previous UK Governments that have not been delivered on (see for example Department for Transport, 2009, 2016a, 2016b).

Action taken by the UK Government and local authorities to impose Traffic Regulation Orders (TROs) on HGV overnight parking in lay-bys and on-street in industrial estates, whilst not at the same time increasing the provision of alternative facilities, is penalising drivers and road freight businesses with fines and operating disruption without resolving the overnight parking shortage. Such action in Kent and other regions under particular pressure with parking availability is likely to add to the HGV driver shortage, making driver retention and recruitment increasingly difficult.

The provision of more overnight HGV parking spaces in lorry parks will clearly require substantial funding and questions remain about how these costs are to be met. Based on the existing business model for lorry parks, it is unlikely that lorry park providers will want or be able to supply all the additional provision that audit surveys commissioned by Government have indicated is necessary. It is therefore important the national and local government and businesses discuss how this is to be afforded, and risks and benefits shared.

6. Daytime rest and welfare needs of all freight transport drivers and service providers

In addition to the overnight HGV parking problem, little consideration has been given by Government or industry to the wider welfare needs of those delivering and collecting goods and providing services who require daytime rest and refreshment facilities and access to toilets and washing facilities, many of whom work in urban areas. This includes improved access for HGV drivers to welfare amenities (toilets, washing facilities, catering and parking space for mandatory rest breaks when visiting distribution centres and warehouses to make collections and deliveries). Despite the UK Government and the HSE reminding businesses of their legal requirement to make toilet, handwashing and rest facilities available to drivers visiting their buildings to make deliveries and collections, this is still not always happening. In addition, the quality of these facilities varies considerably between businesses. The lack of parking space for mandatory rest breaks for HGV driver visiting the site to make collections and deliveries is often due to insufficient HGV parking space at the site. This is a flaw of the current planning approval system for new buildings in which HGV trip generation and HGV parking space requirements are underestimated. This flaw is compounded by developers wanting to include little non-value added HGV parking space into new developments.

Consideration of the welfare needs of drivers and riders working in urban areas providing goods and services has received very little attention from government or industry. These workers who provide collections and deliveries as well as services using LGVs, cars, bicycles, mopeds, motorbikes, cargo bikes and walking (i.e. on-foot porters) often work in urban areas. Those making collections and deliveries are often working in online shopping and parcel sectors. Service personnel include plumbers, electricians, utility engineers and maintenance workers. These drivers and riders often experience difficulty meeting various welfare needs including access to toilets and washing facilities, suitable safe and indoor/covered protected rest areas while waiting for job allocations and for mandatory breaks, secure vehicle parking and storage locations while obtaining/consuming food and drink. Operators of commercial buildings and those in residential homes they visit to perform their activities (i.e. goods

delivery/collection and servicing tasks) often do not provide them with toilets and washing facilities in the course of their daily work. In addition, many of these workers often have to wait between job allocations or take mandatory breaks without the provision of indoor waiting areas and rest areas provided, so instead are exposed to the prevailing weather (if they do not have an enclosed vehicle) and are at greater risk of crime to themselves and their vehicles. They also often have nowhere to safely and secure leave their vehicle while obtaining and consuming food and drink.

7. Recommendations for HGV parking capacity and other driver/rider welfare issues

Lack of action on overnight HGV parking capacity and better provision of driver welfare facilities for all those delivering and collecting goods and providing services is likely to add to the existing UK shortages of freight workers driving HGVs and other vehicles. This will result in the recruitment and retention of freight transport workers becoming ever more challenging. This has impacts on all sectors of the economy both public and private, resulting in delays in obtaining goods and services and disruption to supply chains. There is therefore an urgent need for better joint working between national/local government and industry, improved planning strategy, and enhanced planning guidance by the UK Government and devolved administrations for local authorities to address these freight worker driver welfare issues. This would assist in the provision of toilet and handwashing access, safe rest break parking locations, secure vehicle parking provision in the course of daily work, and changes to how decisions on lorry park planning applications are made to help ensure that fewer delays and rejections to such applications take place. It requires industry to help meet the costs associated with these welfare needs.

HGV drivers and the road freight transport industry have been subject to problems associated with parking regulations and the provision of sufficient lorry park capacity ever since the growth of long-distance road freight in the 1950s (see **section 3**). No Government has satisfactorily addressed these problems over the intervening decades, instead simply requesting surveys of the situation, reviews of the problems and minor amendments to existing planning law, while at same time continuing to pursue on-street parking policies since the early 1970s that have led to local authorities continually reducing the quantity of on-street overnight parking space for HGVs through the use of TROs and enforcement approaches.

The lack of capacity in lorry parks reached an all-time high in 2022 and, together with the cost of this parking and the quality of provision, is contributing to the HGV driver shortage that has impacted on businesses and households throughout the country in terms of their ability to acquire the goods they need when they need them.

As this report has illustrated there is a serious shortage of safe, secure overnight and daytime parking space for HGVs. There are also on-going issues about the provision of driver welfare and amenities to those visiting warehouses, distribution centres and other sites when making collection and deliveries in the course of their daily work.

Various ways in which HGV parking space for overnight and daytime rest and driver welfare issues could be addressed are provided below.

7.1 Reforms to the planning system

The UK Government should proceed with reforms to the existing planning framework as it has promised. However, these must go beyond minor word changes and vague sentences added to the National Planning Policy Framework (NPPF), the circular on the SRN and HGV parking provision and other guidance for local planning authorities in England to consider when dealing with planning applications for lorry parks as has happened in the past (and more recently in 2021 and 2022).

In 2022, the UK Government stated that it will “reform the existing planning framework and ensure that decisions for new driver facilities are not left to individual planning authorities. The Government must reform national planning policy to ensure that more driver facilities, which are fit for purpose and industry leading, are delivered.”

It also said that this will involve assessing whether this can be achieved with “light reform” or whether “the Government should seek to take this dilemma from local authorities and local plans and place the responsibility at a central level. This would rightly recognise these facilities as key national infrastructure assets.”

It went on to say that in order to make this assessment the Government will carry out a call for evidence to “build a comprehensive picture of where the planning system can appropriately support the freight and logistics sector” (UK Government, 2022).

There is no need for yet another assessment, survey or consultation. The difficulties and problems are clear. The Government should proceed now with recognising lorry parks as key national infrastructure assets and putting in place the measures and resources to support them and increase their capacity.

In order to “ensure that decisions for new driver facilities are not left to individual planning authorities” the Government should carry out wide ranging changes to NPPF, the circular on SRNs and lorry parks and guidance to local authorities informing them that lorry parks are key national infrastructure assets and that therefore planning applications for them must be treated as essential and necessary, with timely outcomes. NPPF and this guidance should set out the HGV parking capacity and facilities that should be made available. Alternatively, the Government could take direct responsibility for such planning applications given their national importance, making timely decisions that reflect this.

The updated Department for Transport circular on the Strategic Road Network has noted the need for more HGV parking space at lorry parks at certain times, and has stated that lorry parks cannot be closed unless it has been “clearly demonstrated that a need no longer exists” and that National Highways “will work with relevant local planning authorities to ensure that local plan allocations and planning application decisions address the shortage of HGV parking on or near to the SRN” (Department for Transport, 2022). However, the means by which this will be achieved have not been explained in sufficient detail.

The UK Government should ensure that all its relevant departments with an input to lorry park provision (including the Department for Transport, and the Department for Levelling Up, Housing and Communities) are working closely together on necessary planning reform and it should put in place targets for the next 5 and 10 years for the provision of additional lorry park capacity that will be delivered, for overnight lorry park utilisation and for the proportion of all HGVs that park in lorry parks overnight (i.e. taking account of those vehicles parked in lay-bys and on-street in industrial estates), and then compare these targets with the results of the lorry park audits it commissions. These lorry park audits should be commissioned more frequently than in the past (2011, 2017 and 2022) to check on progress.

The UK Government should also require regional transport bodies and local authorities to pay proper regard and attention to the need for lorry parks, including the identification of suitable sites for new lorry park provision close to industrial estates and away from residential areas. These should be identified in Local Plans.

New warehouse and distribution centres and logistics parks should have daytime and overnight HGV parking capacity and facilities included as a planning condition, with off-street space made available to vehicles making deliveries and collections that can arrive well in

advance of their planned arrival times so that they do not miss these slots and incur commercial penalties. This requires the implementation of a new methodology for calculating HGV trip generation in planning applications for logistics developments (as it is usually underestimated leading to too little HGV parking/waiting space being designed in to development). Enforcement of such regulations with appropriate penalties for failure to do so would be required in order to ensure compliance.

In 2022, the UK Government announced that it “does not at this stage intend to set up a Government-Industry taskforce” to address these HGV parking problems and wider driver welfare issues despite being urged to do so by the Transport Select Committee. It referred instead to ‘working closely’ with Logistics UK, National Highways, the Chartered Institute of Logistics & Transport, Transport Focus and other industry stakeholders (House of Commons Transport Select Committee, 2022; UK Government, 2022). The Government should reverse this decision and put in place such a public-private sector partnership to ensure that the changes made to the planning system for lorry parks and HGV parking will have their intended consequences.

The UK Government put in place a revised minimum standard requirement for security, toilets/showers, cooked hot food facilities, wifi and device charging availability, and provision for showers and washing facilities for female drivers at lorry parks in December 2022 (Department for Transport, 2022b). These relatively minor changes made to the minimum requirements for lorry park facilities do not go far enough as they do not specify the quality of facilities required, only that certain facilities exist. Also, some drivers choose to use lorry parks with few facilities due to them being cheaper than those with more facilities. Therefore, the government needs to give more thought to requiring differing quality of facilities at various lorry parks, rather than simply requiring a basic minimum standard of facilities at all lorry parks. More thought needs to be given by Government as how to encourage the 34% of HGV drivers who were observed to park overnight in lay-bys and on-street in industrial estates to use lorry parks, and for some of these drivers the price of overnight lorry parks is the main reason they choose not to do so.

The UK Government should implement an overall rating system for lorry parks based on the facilities they offer, such as that used in mainland Europe (known as LABEL – the European Truck Park Area Certification system) or the point system used in the HGV parking audits carried out for the Department for Transport. A rating system such as this together with an online directory of lorry parks would inform HGV drivers about the facilities available when deciding where to stop overnight.

The recommendations made above also apply to devolved administrations in the UK.

7.2 Methods of funding greater lorry park capacity

As previously discussed, commercial issues concerning lorry park provision and operation (including high land purchase prices, investment and operating cost requirements, and lack of sufficient expenditure by HGV drivers using them) as well as the costs and delays developers face in trying to obtain planning permissions for a new lorry park need to be addressed.

The short-term matched funding that the UK Government and National Highways have put in place for lorry park development will fall well short of the existing scale of the problem.

The Transport Select Committee recommended that if the road freight transport industry has not resolved HGV parking issues within two years, the Government “should implement the levy charging mechanism and cause the industry to pay sufficient sums for the Government to build these facilities (and pay to train new drivers)...The Supply Chain Levy should be applied to those at the production and sales end of the supply chain, such as large retailers,

oil companies and online service giants. These organisations currently make large profits which do not trickle further down the supply chain to the companies which transport the goods” (House of Commons Transport Select Committee, 2022). In its response, the UK Government noted this recommendation, but said only that that “regarding the suggested levy, taxes are a matter for HM Treasury and all taxes are kept under review” and instead reiterated its announced investment in HGV parking facilities, and the need for a modernised planning system (UK Government, 2022). The UK Government should seriously consider this mechanism as a means by which to fund the additional capacity in lorry parks that is required. The Government has constantly stated over the last decade that it sees industry as being responsible for funding and providing lorry parks, therefore if industry continues to fail to provide these it was seen to be a sensible way in which to proceed with obtaining the funding needed, placing the costs on the retailers, manufacturers, fuel providers and other parties in the supply chain most able to afford it.

Local authority lorry parks are few in number and capacity (with there being only 16 such lorry parks in England with a total parking capacity of 609 spaces in 2022 – AECOM, 2022). These local authority lorry parks tend to be among the most basic in terms of the facilities they provide, with 8 of the 16 providing only parking, 4 providing only parking and toilets, 1 providing parking, toilets and café, and three providing toilets, shower, café, lighting, and security fence). Far more local authority lorry parks have closed than opened over time, with local authorities stating that they do not see providing lorry parks themselves as a priority and sometimes selling sites for redevelopment by private developers for other uses.

With the proceeds of a Supply Chain Levy the UK Government could oversee the provision of more motorway and A-road HGV lorry park capacity (either operating them themselves or by making Levy funding available to private lorry park operators).

It could also make funding available to local authorities or private operators to provide more lorry park provision with only basic facilities which could be made available to HGV drivers either freely or cheaply. This type of lorry park would be most likely to prove successful in reducing overnight HGV parking in lay-bys and at kerbsides in industrial estates, given that price is a key factor in parking location choice for many of these drivers. Research could be carried out to investigate the proportion of HGV drivers making overnight stops who do and do not intend to use lorry parks and the reasons for their intentions. If a sizeable proportion of long-distance HGV drivers never intend to pay for lorry parks then, providing free or inexpensive lorry parks would be the best way to reduce central and local Government’s objective of reducing HGV parking in lay-bys or on-street in industrial estates. Consideration would need to be given to whether drivers using these facilities were asked to pay a relatively low price for the use of such a lorry park or whether their provision should be publicly funded on safety grounds.

If the UK Government is of the opinion that the use of lay-bys and at kerbsides in industrial estates for overnight parking is unsafe and must be reduced, then there is a need for it to put in place a system to ensure that businesses that reimburse drivers for overnight HGV parking they pay for or, even better, book this themselves directly on behalf of drivers to ensure that these drivers make use of lorry parks rather than park in lay-bys and at kerbsides in industrial estates. This would potentially involve the removal of tax benefits for reimbursement of drivers doing so and instead require businesses to take responsibility for booking and paying for these lorry park facilities directly.

It should also be noted that HMRC has not increased the tax-free overnight allowance of £34.90 that employers can pay to employees for overnight expenses since 2013, so it has fallen in value considerably due to this lack of inflation-linked increases. This potentially makes it ever-more difficult for employed HGV drivers receiving these tax-free allowances to meet their overnight expenses from them (unless their employer makes bespoke payments to them

that are above this limit but which require onerous checking systems for HMRC to receive tax-free status).

This approach could also involve making businesses that employ and use HGV drivers to transport their goods over long distances without currently providing payment for the overnight parking services having to do so and becoming responsible for booking lorry parks and paying directly for them on behalf of these drivers. The Government could make this a legal requirement. Socially responsible companies could also make this a condition of their logistics contracts and Corporate Social Responsibility statements.

In relation to the provision of new and extended lorry parks in locations in which they are required, Government needs to work with industry to determine the locations in which such facilities are required, as well as to ensure large scale planning reform to ensure that planning applications for this nationally important infrastructure are dealt with positively and promptly and determine appropriate ways in which objections from the local community are addressed (as discussed in **section 7.1**).

7.3 Lorry park supply and demand data

The UK Government has commissioned overnight HGV parking audits in England in 2011, 2017 and 2022. The frequency of these audits needs to be increased so that a current understanding of the shortfall in HGV park capacity and the locations in which this shortfall exists is available to inform Government policy. Devolved administrations in the UK need to also carry out such data capture and analysis so that national provision is understood.

There are additional important questions about overnight lorry parking that need to be addressed and which the UK government should investigate. These include (i) issues concerning the relationship between lorry park prices, location, facilities and occupancy rates; (ii) the factors that influence HGV drivers decision-making about whether or not to use lorry parks for overnight parking; (iii) understanding of who pays for the use of a lorry park, the method of payment, and the effect of this on driver parking location choice; (iv) understanding of objections made by local residents to new lorry park developments are based on objective traffic safety risks or disturbance impacts; (v) whether HGV drivers are either travelling further than necessary to find overnight parking spaces and thereby adding to HGV mileage and its traffic, social and environmental impacts or stopping driving earlier than necessary due to concerns about parking availability and thereby affecting their productivity; and (vi) the safety, security, traffic impacts of overnight HGV parking in lay-bys and on-street in industrial estates.

National Government could make local planning authorities responsible for carrying out regular analysis of lorry park demand and supply within these areas of governance and the reasons for any undersupply identified. Local authorities could be made to make use of this information in their preparation of their Local Plans.

7.4 Provision of HGV parking availability information

There is substantial scope to improve the capture and dissemination of HGV parking availability data. This should take the form of both the gathering of parking space data in lorry parks using cameras or sensor pads in parking bays, as well as the systematic provision of this data via mobile phone apps and variable message signs (VMS) at the roadside provided drivers with information about local parking space availability on the roads they are using. Useful work is being carried out in the USA (Murray and Shirk, 2021). There are HGV parking apps that are available in the UK, such as 'Transparking', 'HGVparking', 'Truck Parking Europe', 'Motorway Buddy', and 'SNAP' - however coverage of HGV parking availability in the UK is not currently very comprehensive in these apps and some also include lay-bys as well as lorry parks.

VMS information is already widely used for providing car drivers with car park space availability and could readily be used for HGV parking information provision. Online real-time availability data which can be accessed by mobile phone apps could be used to provide drivers with real-time information about the availability of lorry park space as well as the ability to book available parking spaces. However, given laws preventing mobile phones while driving, HGV drivers would have to access such apps while stationary.

Such parking data gathering and dissemination would assist HGV drivers to find such space and prevent them from having to park in lay-bys and on-street in industrial estates. It would also reduce the additional mileage involved in drivers searching for a lorry park space, or the inefficiency (and associated vehicle fleet and vehicle kilometre impacts) of stopping driving sooner than necessary.

There is an important role for national Government to work with private lorry park operators and local authorities in the acquisition and provision of this parking information to HGV drivers and their employers.

7.5 Greater use of collaborative overnight HGV parking facilities

Open networks in which freight transport operators and other businesses with suitable provision make their off-street parking space and facilities available. SNAP provides online booking services for access to approximately 250 HGV parking locations in the UK and EU, comprising existing lorry parks as well as freight operators' depot facilities. Approximately 80 of these 250 sites are freight operators' depot facilities. Founded in 2012, SNAP has signed up secure HGV parking sites at depots where spare parking capacity can be used to provide safe parking facilities and at the same time generate an additional source of revenue for the businesses making their depots available. The quantity of space made available by parking providers can be altered online according to the movements and needs of the business' own fleet. For example, APP Wholesale, a plumbing and heating supplier based in Dagenham, London joined SNAP in July 2019, investing in some groundworks, amenities and security measures and then opening the underused parking space as a lorry park to other users. After several months, APP began receiving repeat fleet users and earning a good return. Between opening in July 2019 and October 2020 the site received 9,000 parking transactions from approximately 3,000 unique HGVs and typically accommodates 25 to 30 HGVs per night. Offering the service has had no negative effects of AAP Wholesale day-to-day plumbing and heating business (SNAP, 2020).

The Transport Association is a national network of approximately 60 freight transport businesses (mostly family-owned businesses), operating a total of approximately 4,000 vehicles and 150 operating depots. It was established in 1946. These businesses share each other's depot facilities for the purposes of HGV parking (Transport Association, 2022). Membership is required so this can be referred to as a closed collaborative network.

Government and trade associations could work together to identify further opportunities for and promote open and closed collaborative networks in which off-street HGV parking space is made available to other HGV operators and drivers to increase the capacity of parking facilities both quickly and relatively inexpensively.

7.6 Using two-person crews for long distance HGV journeys

Two-person crews for long distance HGV journeys can help significantly reduce the need for HGV overnight and daytime parking to comply with drivers' hours rules. In these operations, which are common in the USA, one driver sleeps while the other drives. Such operations could be considered for the UK in order to reduce the demand for HGV drivers and overnight HGV parking space.

EU driver's hours rules, to which drivers in HGV drivers operating in the UK are currently subject, currently specify that 45 minute rest break periods can be taken in a moving vehicle. However, while daily rest periods (i.e. sleeping time after a day's driving work) may be taken in a vehicle it is expected that suitable sleeping facilities exist for each driver and that the vehicle is stationary ("suitable sleeping facilities in a vehicle are considered to be a bunk or other type of bed which is primarily designed for sleeping on. If a vehicle has no suitable sleeping facilities then other arrangements should be made, for example, a hotel, hostel, guest or boarding house, chalet, static caravan or rental accommodation") (Driver and Vehicle Standards Agency, 2020). These same results currently apply to weekly rest periods: "It is not permitted to take regular weekly rest periods and any weekly rest of more than 45 hours which include compensation for previous reduced weekly rest in a vehicle. Such rest periods must be taken in suitable gender-friendly accommodation with adequate sleeping and sanitary facilities such as a hotel, hostel, guest or boarding house, chalet, static caravan or rental accommodation" (Driver and Vehicle Standards Agency, 2020).

Therefore, changes to drivers' hours rules in the UK would be necessary for two person crews to operate in this way and reduce the demand for overnight HGV parking. This would need to be accompanied by an assessment of the safety of such a change in regulations.

7.7 Drop trailer operations

Drop trailer operations have existed for many years. Rather than an articulated HGV driver having to transport a trailer over a long-distance and then return home (and spend a night away from home), instead they leave the trailer at an inter intermediate location (or rendezvous with another driver with a tractor unit) with the second driver transporting the trailer to its destination and the first driver returning to base or going to another local job. This reduces the distance over which drivers have to transport goods, how frequently they need to stay away overnight, and can help to better utilise vehicle fleets and driver resources, resulting in lower operating costs and fewer vehicles. Therefore, drop trailer operations can reduce the demand for overnight HGV parking space and may prove popular in attracting drivers into the industry who do not like the prospect of being away from home overnight. These drop trailer operations are gaining increasing attention in concepts being developed about the 'Physical Internet' in which future freight transport and logistics networks are made open and the equipment used is standardised in order to enable seamless asset sharing and goods flow consolidation, to improve operational efficiency and environmental sustainability (ALICE-EPT, 2020; Landschutzer, 2015; Treiblmaier et al., 2020). However, to carry out these drop trailer operations there is a need for suitable, safe spaces where trailers can be deposited or transferred between tractor units.

7.8 Unaccompanied Roll-on Roll-off trailer operations

Unaccompanied Roll-on Roll-off (RoRo) sea freight (i.e. HGV trailers without drivers and the vehicle drive unit making the crossing and containers) has greater handling costs than accompanied roll-on, roll-off HGV crossings. However, delays caused by Brexit-related checks and other traffic-related factors cause less HGV driver and vehicle costs in the case of unaccompanied movements than the accompanied roll-on, roll-off HGV movements that take place through the Port of Dover and the Eurotunnel in Folkstone. It is therefore possible that, if these delays persist, businesses may reorganise their logistics operations so that greater use is made of unaccompanied movements to other ports in preference to accompanied movements through Kent. The unaccompanied RoRo movements generate less demand for overnight HGV parking than accompanied ones given shorter journey leg distances and journey times.

These other UK ports are better positioned in relation to many of the large 100,000 square feet and over warehouses in central regions of the UK. Unaccompanied roll-on, roll-off goods movements may provide advantages over accompanied movements from Dover and the Eurotunnel in terms of the cost of driver and vehicle delay, unreliable goods deliveries and poor driver working and welfare conditions associated with delays. It also means that goods can be temporarily stored at the port if warehouse space is limited. However, road freight transport businesses wanting to switch to this approach may need to relocate vehicle depots to avoid longer, more expensive road journeys, may require setting up businesses in mainland Europe to recruit and manage drivers and fleets to deliver and collect these unaccompanied trailers, and for retailers, wholesalers and manufacturers importing and exporting goods in the UK to hold the additional buffer stock to compensate for the greater times typically spent at ports by trailers and containers.

Such a development would have important implications for the total demand for overnight HGV parking and the locations in which this demand arises, with demand in Kent most likely to fall.

7.9 Wider driver and rider welfare issues

The UK Government needs to better ensure that the driver welfare facilities provided at buildings receiving collections and deliveries and services are made clear to the operators of such buildings, and that a robust enforcement system is put in place to deal with any contraventions. Although making toilet and handwashing facilities available to visiting drivers is already a legal requirement, there is evidence that many businesses receiving deliveries and collections are not observing it.

Local authorities have a role to play in reviewing the driver welfare facilities provided within their localities (both at the buildings where these activities take place as well as in public places). This should especially focus on facilities for urban delivery workers providing services associated with online shopping who use vehicles that are not enclosed (such as bicycles, cargo bikes, mopeds and motorbikes) or who work on-foot and are therefore most subject to the weather and at risk of crime to themselves and their vehicles and loads when taking rest breaks or waiting for their next job allocation. In some cases this may involve requiring businesses that make use of such workers (such as restaurants, takeaways, 'dark kitchens, and 'dark stores') to make these toilet, covered rest and secure vehicle parking facilities available as part of their planning permission or licensing. This is especially important in situations in which the lack of such provision also results in negative impacts for local residents.

Depending on the review findings, it will require also potentially require an assessment of the adequacy of the public provision of toilets, covered rest areas and secure vehicle parking

locations, as well as the scope for increasing such public provision where it is deemed inadequate.

As the Transport Select Committee recommended “the Government, in consultation with the sector, should devise a binding code of conduct setting minimum standards for employers’ and other businesses’ treatment of HGV drivers” (House of Commons Transport Select Committee, 2022). Consideration of such a code of conduct should be extended to other workers providing goods and service to businesses in addition to those who drive HGVs, including LGV drivers and those who use cargo bikes, bicycles, mopeds, motorbikes, cars and those who work on-foot.

7.10 Connected autonomous vehicles (CAVs)

It should be noted that Connected Autonomous Vehicles (CAVs) are under development for HGV use. “Connected vehicles can communicate information with other vehicles, road infrastructure and devices, while autonomous vehicles can perform certain driving tasks without human input, such as braking and steering, with more advanced and future models having the potential to become ‘self-driving’. Collectively, CAVs have the potential to deliver significant societal benefits to the UK, including reducing the number of collisions on our roads, improving access to travel for those who currently find it difficult, and increasing the efficiency of transport networks to make them safer, smoother, and more efficient” (Britain Thinks, 2021, p.13).

There is much uncertainty about the timescale for the likely uptake of fully autonomous LGVs and HGVs across all subsectors of road freight transport. Whenever such fully autonomous goods vehicles (level 5) are introduced they will have important implications for the demand for overnight HGV parking and rest areas, as these would not be required by such vehicles (as there would be no human driver who needs to comply with driver hour regulations). However, human personnel are still likely to be required to carry out goods movement and delivery from these vehicles to the receiver. Therefore, toilet/handwashing and other welfare needs of these workers will remain.

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