

Consultation response

1. We have identified above the main technologies and trends that we believe will affect urban mobility in the coming decades. Are there any missing?

We broadly agree with the government's assessment of the main trends affecting urban mobility in the years to come.

In particular, we identify closely with those challenges highlighted around our ageing population. However, whilst we agree with the government's assessment that an ageing population is likely to increase transport demand, we would suggest that an implicit assumption has been made here in what is meant by 'transport' - which, in this context, appears to relate primarily to motorised vehicles, public and private transport (i.e. transport modes that are likely to increase congestion and/or put a strain on the transport system).

However, this is to ignore the huge health and wellbeing benefits that *active* travel, viz. cycling and walking, can bring to older and disabled people, who have the most to gain from being physically active. Indeed, disabled people alone are half as likely as non-disabled people to be physically active, more likely to be socially isolated and to experience comorbidity. It is also worth noting that the majority of disabled people are elderly, with the number of people aged 65+ expected to increase by 12% between 2015 and 2020, and so any measures aimed at improving the health and wellbeing of older people are also likely to benefit disabled people (and vice versa).

E-cycles, for instance, are tremendously beneficial for older people, disabled people and those with mobility difficulties as they:

- Allow older and disabled people to cycle longer distances and in greater comfort, by reducing the amount of physical effort required;
- Enable older and disabled people to stay physically active in life for longer (thus improving their physical and mental health, and wellbeing); and
- Offer older and disabled people a genuine alternative to the car as a form of commuting and general travel (who, as a group, tend to be more reliant for day-to-day travel on driving or being driven e.g. by taxi).

Though some attention has been paid to active travel in this consultation, not enough has been made of the potential for increased levels of cycling and walking as a possible 'future trend' in urban mobility. This, in part, could be put down to the current car-centric outlook of our transport system.

Finally, we would question the weight of importance placed on the future of autonomous vehicles. Whilst we recognise and welcome the fact that they have the potential to improve road safety and reduce emissions, there is a risk of overplaying their utility and relying on them as the sole solution to the problem of air pollution. What's more, simply replacing cars with autonomous vehicles will do little to alleviate chronic congestion problems on our roads. We are also doubtful that the machine learning used in autonomous vehicles is sufficiently advanced to predict and react to the impulsive movements of cyclists, including those who use non-standard cycles

(e.g. tricycles, handcycles, recumbents), such as disabled cyclists. At a minimum, we would urge that any prototyping of autonomous vehicles must involve user testing with all types of cycle and cyclist, in order to account for the needs, movements and safety of every possible type of road user.

The autonomous vehicle should not be seen as a silver bullet to the problem of air pollution, but rather as part of a series of measures aimed at improving air quality. Ultimately, the most effective way of achieving this will be to invest more in cycling and walking.

2 We want our urban infrastructure to support these trends and deliver benefits to society. What changes are required to urban infrastructure?

If urban infrastructure is to support a growth in active travel, including encouraging cycling amongst those who are furthest from it (e.g. disabled people), then a number of changes are required, not least to existing cycle infrastructure.

According to our research, inaccessible cycling infrastructure is the single biggest difficulty faced by disabled cyclists in the UK. This is perhaps unsurprising given the kinds of cycles that many disabled people use (e.g. tight bollards may exclude a tricycle and kissing gates a handcycle or tandem). These are real, everyday problems that limit disabled cyclists' ability to cycle where and when they want. Cycle networks and cycling infrastructure have been designed around the two-wheeled bicycle and able-bodied cyclist. This excludes many other types of cyclists.

However, a cycle network that meets the needs of disabled cyclists - by being step-free, barrier-free and spacious - is, by default, accessible to everyone: two-wheeled bicycle users, as well as individuals, families and businesses who use tricycles, tandems, trailers and cargobikes. Equally, any measures enabling cycling by disabled people are likely to support a growth in cycling by novice cyclists, including children and young people, as well as older people. It will also improve conditions for those using mobility scooters, and so we also recommend the creation of Dutch-style 'mobility lanes' (see our response to Question 12 for more detail).

Together with cycle infrastructure, the needs of disabled cyclists must also be catered for when it comes to the built environment. To achieve this, we recommend that all planning authorities, architects and developers consider the following key points:

- Where new cycle parking facilities are installed, 5% of all spaces are allocated for use by disabled cyclists - matching equivalent provision for disabled car drivers;
- Where accessible car parking spaces are built, the co-location of inclusive cycle parking is also considered;
- When new offices, leisure and commercial spaces are built it is ensured that they accommodate inclusive cycle routes, inclusive cycle parking and accessible showering facilities.

3 What evidence do you have to enhance our overview of the impacts of these trends on cities and their use of urban space? Are any impacts missing?

With regard to the potential benefits e-cycles offer disabled and older people now, and in future, our research has shown that as many as 1 in 5 disabled cyclists own a cycle that uses electric-assist. We also have a large amount of anecdotal evidence to show that there is an increasing level of demand for e-cycles amongst the disabled population. We have no doubt that, were the cost of e-cycles to be less financially prohibitive, their usage amongst disabled and older people would be much higher than is currently.

4 What possible market failures might emerging technologies and trends give rise to that could require intervention by Government?

We welcome the government's recognition of the future utility of e-cycles. However, as mentioned above, the cost of e-cycles remains a significant barrier to cycling for many disabled people. The lack of subsidies available for e-cycles (and the fact that the existing Cycle to Work scheme is limited to cycles worth up to £1,000) further restricts the ability of disabled people to access cycling, who as a group are more likely to be on lower incomes and work part-time than non-disabled people.

Rather than rely on market forces to drive down the price of e-cycles over time, we recommend that:

- The government review the Cycle to Work scheme, which allows employers to loan cycles to their employees as a tax-free benefit, but which is currently limited to £1,000 (and therefore excludes most types of e-cycle, which typically cost more than £1,000);
- HM Treasury, together with the Office for Ultra Low Emissions Vehicles (OLEV), consider the diversion of funds and subsidies for Ultra Low Emissions Vehicles (ULEVs), such as electric and hybrid cars, to *all* forms of e-cycles (it is common practice in many European countries for employers to use tax breaks and incentive schemes for those employees who use an e-cycle, instead of a car, to get to work);
- The government work with cycle hire providers and others to expand cycle hire provision to include e-cycles where possible, especially in hilly areas.

5 We are committed to a transport network that works for everyone. What role should Government play in helping ensure that future transport technologies and services are developed in an inclusive manner?

It is imperative that the government engages with Deaf and Disabled People's Organisations (DDPOs) at the *earliest stage possible* of any consultation, policy or decision-making process – and continues to do so throughout the duration of that process. Equally, any user testing of new technologies and services must also involve disabled people, including those with physical disabilities, visual impairments, learning disabilities or hidden disabilities, to ensure that the full range and diversity of people's needs have been taken into account. Further to this, we would emphasise

the importance of co-production in the development of government policy – that is, working with disabled people as consultants in the design, delivery and monitoring process – and recommend that government adopt this practice wherever possible.

6 How can Government ensure that future urban transport systems support people's wellbeing and flourishing, healthy communities?

There are untold health and wellbeing benefits to be had from cycling. For instance, a number of studies have shown that cycling can improve alertness at work, reduce the risk of cancer and heart disease. Cycling has also been linked to improved mental wellbeing. As already mentioned, it has particular benefits for older and disabled people, who are less likely to be physically active and more likely to be socially isolated. And of course, as a sustainable mode of transport, cycling is also beneficial for the environment, helps to improve air quality and plays a key part in creating 'liveable cities'.

The government must recognise the untapped potential of active travel as a way of improving the wellbeing of people and communities, and must therefore re-orientate transport policy by targeting investment on cycling and walking initiatives. Projects such as the 'Mini Holland' schemes in London show the benefits that investment in active travel can bring to local communities and their environs.

7 What role should Government play in understanding, shaping and responding to public attitudes to emerging technologies and services?

It is crucial that government takes steps to fully understand, and accommodate, the needs and requirements of disabled people in relation to developments in transport. We recommend that more research be carried out to understand the full nature of disabled people's attitudes towards active travel, including trends in cycling and cycling potential amongst disabled people, for which there is currently very little data.

8 What changes do you expect to the mobility-related labour market? How can Government best support people and businesses affected by these changes?

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9 What other actions should Government prioritise to help people, businesses and cities prepare for the future?

There are significant benefits to ensuring that all new cycle infrastructure is 'future-proofed' and built to a specification that is able to accommodate future unseen demand. As we have already alluded to, designing cycle infrastructure that meets the needs of disabled cyclists will, by default, be accessible to *everyone*. It therefore makes sense, both practically and financially, to design cycle networks that first and foremost work to the needs of those with the highest requirements.

As a way of helping businesses and cities prepare for the future, we recommend that greater efforts be made to encourage and incentivise businesses to use cargobikes for last-mile deliveries. This is particularly important given the rising problem of congestion and the squeeze on road space brought about by a growth in car ownership, which is only likely to worsen in future due to population increases (which will be especially problematic in dense urban areas like London). Grappling with these issues now will help to safeguard against problems that are only likely to worsen in future, including congestion and air pollution. We therefore welcome steps being taken by the Government to identify ways in which businesses can be encouraged and supported to make use of e-cargobikes for freight deliveries.

10 Which ‘missions’ in the areas we have identified could be most effective in driving innovation and investment? Please refer to the criteria suggested in paragraph 2.6.

We strongly support the government’s ‘liveable cities’ agenda. This approach addresses the government’s wider strategic goals of improving levels of physical activity and reducing obesity. It also supports efforts to tackle the mental health crisis (given the links between physical activity and improved mental health and wellbeing) and the government’s drive to tackle loneliness, especially when the benefits of peer networks stemming from local cycling clubs are considered. Furthermore, through an increased focus on its liveable cities programme, the government will be better placed to meet its obligations on air pollution.

11 How should Government funding be targeted to help UK innovators build and scale transport solutions?

We believe that government funding is best spent on developing sustainable transport solutions. In this respect, we recommend that government investment be targeted at initiatives aimed at boosting levels of cycling, particularly amongst underrepresented groups. This could include, for example:

- Running competitions and funding bids for inclusive cycle design projects and inclusive cycling community projects
- Investing in cycle hire schemes, and encouraging providers to expand the range of cycles that they offer (esp. e-cycles)
- Growing the number of inclusive cycle hubs (places where disabled people can go to cycle in a supportive environment, away from traffic) to ensure that all disabled people have an opportunity to try cycling locally
- At a local government level, encouraging partnerships between Clinical Commissioning Groups (CCGs), Health and Wellbeing Boards, special needs schools and DDPOs to help signpost disabled people to cycling opportunities in their area, as a method of social prescription

- Working with cycle manufacturers, retailers and employers to unlock the true potential of e-cycles, including by introducing subsidy and incentive schemes, and increasing the existing £1,000 limit under the Cycle to Work scheme

12 Which laws or regulations not currently being addressed need to be amended or created to help harness the benefits and mitigate any risks associated with new transport technologies or services?

According to our research, the majority (69%) of disabled cyclists find cycling easier than walking, with many using their cycle as a mobility aid. However, under existing legislation cycles are not recognised in this way, unlike wheelchairs and mobility scooters, and we continue to receive complaints from disabled cyclists who have been asked to dismount by police, typically in pedestrianised areas, shopping centres and ‘cyclists dismount’ zones (even when it might be physically impossible for them to dismount and walk/wheel their cycle). In some cases disabled cyclists have been threatened with fines. Clearly, it is wrong that disabled people are being discouraged from taking up cycling, or worse, penalised for choosing active travel over more sedentary forms of transport.

Therefore, as one way of increasing up-take of cycling amongst disabled people, we urge the government to amend the Use of Invalid Carriages on Highways Regulations (UICHR) 1988 to recognise the use of cycles as a mobility aid. As a complimentary measure, steps should be taken to devise and implement a disabled cyclist’s ‘Blue Badge’ scheme, which would help identify disabled people who use their cycle as a mobility aid and give them certain exemptions.

As an additional measure to supporting more disabled people to cycle – and as a way of alleviating concerns around the future of shared space schemes (esp. for visually impaired people) – we recommend that laws be changed to permit the use of mobility scooters on cycle lanes, together with the creation of Dutch-style ‘mobility lanes’, which would be accessible by bicycles, non-standard cycles and mobility scooters alike. Developing inclusive cycle networks in this way could improve conditions for those using mobility scooters, which would in turn free up space on the footway and improve the experience of pedestrians, particularly those with sight loss. It would also enable better access for other users of non-standard cycles, including family, freight and cargo cyclists.

13 How could the experience of working with local and/or national regulators be improved for transport innovators?

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14 What further actions should Government prioritise for resolving barriers to data sharing and use in the mobility sector while protecting privacy and security?

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15 Do you have any further suggestions or comments on the subject of this call for evidence?

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