

ITS United Kingdom – Written evidence (TTS0049)

ITS United Kingdom was established in 1992 as a membership association dedicated to advocating for the implementation of Intelligent Transport Systems (ITS) in the UK and for innovation in ITS. ITS can be defined briefly as the application of information and communications technologies to surface transport. We have around 150 organisations as members (<https://its-uk.org.uk/our-members/>). We have a dedicated Public Transport Forum, containing our Members with expertise in all aspects of using technology to support and manage public transport operations. The content of our response comes mainly from them.

What are the current and anticipated levels of public transport demand and capacity in towns and cities in England? What influences public transport travel patterns? How does the choice of public transport vary across different demographic groups?

Public transport has been key in moving people around. Since the pandemic, passenger numbers have fallen, but are now picking up again. Significantly, numbers travelling by private car have picked up far faster than numbers by public transport, and are in some cases exceeding pre-pandemic numbers.

Public transport travel patterns are influenced by many constant factors in addition to the temporary factors of the pandemic. Availability and convenience of public transport services influence demand. Public transport needs to be accessible to users and permit them to make the journeys they need to make at the times when they need to make them. Information about services also influences patronage – access to journey planning helps users understand their travel options and plan their journeys. Real-time service status information helps give users confidence about the departure and arrival times. Time is an important factor – we know from London that when bus journeys slow down, cycling and walking trips increase. Cost is also important – we believe that in our major urban centres, the wish to save on expensive public transport commuting journeys will result in a permanent shift to partly working from home, travelling off peak, and a resulting lack of demand on commuter routes. However, many jobs cannot be done from home in any circumstances, and we must provide good quality services for these workers.

Younger and middle aged travellers are now using micro mobility scooters in many large and medium sized towns and cities. These may seem to offer the convenience and privacy which also make a private car attractive. There may however be a public opinion backlash against them due to the complete lack of enforcement and therefore antisocial riding of them, which may reduce their ability to play their potential part in our future urban transport services.

Maybe most challengingly, people like using cycling, walking, and micromobility solutions when it is a nice day, but they still want the bus to be there when it is raining, snowing or freezing. This is commercially difficult to deliver, and makes infrastructure decisions very difficult. This can be seen in London, by the way that cycling schemes etc have 'cannibalised' bus use rather than changing the habits of many drivers.

How might public transport travel patterns shift in the next 10 years? What impact could digitalisation and the COVID-19 pandemic have on travel patterns in the long term?

From a transport planning perspective, there is not really a 'normal' day now. That may change, and a new 'normal' may yet emerge, but more likely the current fuel price shock will bake in some of the changes in behaviour that emerged during covid, with people making day by day decisions. This clearly makes it difficult to predict any type of travel pattern.

Following reports from the Government Office for Science, micro-mobility is set to be the largest growing transport trend. It would make sense to transition current transportation systems to help accommodate this change. Naturally people will use public transport trains and buses for longer distance journeys but switch out to their micro-mobility on the last-mile journeys as they travel door-to-door. To bring people back to mainline transport systems, those systems need to work with micro-mobility more effectively. Perhaps docking stations that can charge those items could be useful. Storage areas designed on buses perhaps?

See previous question for possible impacts of more white collar work being done from home.

The debate about a four day week (again usually assumed to be about professional jobs) seems to be gaining traction and more employers are offering compressed hours. If this becomes the norm, again there would be a drop in demand for public transport overall. On the other hand, this drop may be offset by an increase in leisure trips. On some networks, weekend trips have rebounded more strongly than weekday ones, which probably reflects an increase in working from home plus an increased appetite for leisure trips. It is easy to see how making fewer commuting trips during the week might lead to being more willing to travel for leisure during the weekend. If this turns out to be a permanent trend, that has implications for how time tables are set, when the most vehicles and staff will be needed, and when maintenance should be carried out.

What can be done to improve connectivity across public transport modes? How could better integration be delivered in urban areas outside London?

Working with more data input points is key. Data from other connected vehicles will play a large part. Actual road insight information and better planning will also be derived from new data systems that have not existed before. The Mobility as a Service concept may have passed its initial hype phase but the ideal of a comprehensive, fully integrated information, planning and payment platform for public transport still has to be the goal. Lessons learned from MaaS to date indicate that this needs to be an at least partially publicly funded service.

The impact of geo-political changes in terms of who runs public transport may also have an impact in terms of connectivity. The return of buses to the control of the Metropolitan Mayor in Manchester (and potentially other urban conurbations in the near future) is predicated in part, on opportunities to

improve integration with other public transport services operated by the same agencies. Other geo-political influences which could impact public transport patronage include the introduction of clean air zones across cities in the UK – public transport becomes increasingly attractive as a travel option when travellers are either priced out of using their private vehicles or cannot use them due to clean air zone legislation.

What are the likely areas of innovation in urban public transport over the next 10 years? How should public policy be shaped considering both incremental and transformational innovations?

Micro-mobility adoption. Better road insight data from shared and connected modes of transport.

Also highly connected and at least partially automated services, particularly where there is street space to give over to segregated routes.

Where it happens, greater availability of fully integrated payment systems and integrated tickets for multi-mode journeys in urban areas outside of London will also have an influence over public transport usage.

How could data help transport services meet consumer demand?

Data is already critical to public transport operations. Accurate vehicle location data is the key driver for real-time information systems. The DfT Bus Open Data Service, which provides timetables, bus location and fares data for every local bus service across England, is increasingly important to service planning, operation and ultimately patronage.

Data for public transport generally is now pretty good, and continuing to improve, as the BODS beds in.

Shared data platforms are at early stage emergence right now. One ITS (UK) Member company is working on crowd-sourcing information from over 10,000 vehicles to provide deep road insights. Those systems will improve significantly over the next several years.

Better quality and more granular data is almost certain to show instances where services are in the wrong place or at the wrong density, so operators will be able to address this. It is not easy to reroute urban rail, but buses sometimes run on routes originating many decades ago which are unlikely to still be optimal for the local populations.

Are local authorities well equipped with appropriate funding and powers to deliver high-quality public transport services? Would further devolution of transport policy contribute to better outcomes?

After years of funding cuts, local authorities are often under-budgeted and under-equipped.

Urban public transport would seem to be an ideal candidate for devolved policy making and funding. Also, bringing forward new solutions now to reduce costs is key.

The UK has a good resource of the rights skills in this area, but it is overwhelmingly employed in the private sector. If the political will exists to fund local authorities to restore their in house capability to run public transport networks, then there will be an initial skills shortage, but we have a good starting point and good education and training providers and the shortage will be over years, not decades.

Could better policy coordination across government departments, and between central and local government, improve public transport outcomes? If so, how can this be achieved?

Yes, policy and communication are critical to advance future transport systems. There is definitely an institutional tendency to silo different modes of transport, and other aspects such as accessibility, inclusive mobility, environmental impacts etc. In transport technology, central governments and local authorities are fairly well connected. The disconnect is much more between policy regarding different modes, and also between policy regarding different desired outcomes such as zero carbon or inclusive mobility.

What are the barriers to improving urban public transport, in terms of delivering the necessary infrastructure, increasing connectivity and improving the consumer experience?

Collaboration and funding opportunities for transport-based companies. The innovation comes from smaller enterprises but they are often left without funding or support and therefore our transport sector is slow to make innovative changes.

Urban transport providers and authorities are understandably reluctant to use their voting and travelling public for experiments, and rightly so. They need support in undertaking innovative procurement and in learning from good practice elsewhere, including in similar cities abroad.

Are there other important changes, not covered elsewhere in these questions, which would improve matters?

The social and economic benefits of high quality urban public transport services should receive more attention. Connecting urban citizens with jobs, education and services via low carbon, low congestion modes of transport should be an absolute priority for both national and local government.

It is important to find new ways to continue to encourage innovation and to facilitate the testing of new technologies as they emerge, even in an environment which may have a short-term impact on an operator's key success factors of patronage and revenue.

March 2022