



# A Manifesto for the Future of Transport

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## FOREWORD

# Why Intelligent Transport?



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**As the UK heads to the ballot box, the role of our transport network, and questions around how we maintain, improve and fund it, are becoming more pertinent than ever.**

Transport is a critical component of the UK's economic story. It plays a key role in connecting communities, fostering economic growth, and in contributing to our overall competitiveness and productivity. An effective and efficient transport system is the backbone of businesses, enables communities to connect and supports the movement of goods and services that keep our economy going.

Yet, the challenges our transport industry faces have - in some ways - never been greater. Transport is a sector that contributes more than a

quarter of the UK's total greenhouse gas emissions, at a time when we have a legal, as well as moral, requirement to reach Net Zero by 2050.<sup>1</sup> With Government debt at 98% of GDP and a significant strain on the funding of local, regional and national transport authorities, delivering efficient and cost-effective transport services has never been more vital.<sup>2</sup> With work and leisure habits having changed significantly since the Coronavirus pandemic and the public now expecting a more seamless travel experience, the expectations on transport providers have never been higher. And with key targets to deliver Vision Zero, the strategy to eliminate all traffic fatalities and severe injuries across the transport network, safety has become even more vital.

Facing these challenges will require new ways of working. Technology is having a radical impact on nearly all parts of society, none more than transport. With the growth in artificial intelligence and data analytics, we can create a more effective, greener and safer network; one that responds to the individual needs of the public and provides them with a more integrated and enjoyable journey. Technology will allow for the greater automation of services, will enable more seamless journeys across modes and will help us to plan transport schemes and infrastructure improvements to better reflect the needs of local communities. And it will enable greater capacity on a constrained network.

This Manifesto for the Future of Transport sets out the case for a forward-looking approach to the UK transport network, one that embraces the benefits technology can provide. Whether it's the use of AI, digital twins and predictive maintenance, smart ticketing, connected and automated

vehicle services, enforcement, traffic management & control technology or data services - the UK can be a world-leader in developing solutions that support a better, more effective transport network.

A technology-driven network will require political leadership at all levels of government. It will mean a shift in mindset, with decision makers treating data as essential a component of the network as the cement and bricks we use to build the physical infrastructure. It will also require the sector to broaden its expertise, and consider areas like user-behaviour and human factors, as well as cyber-security and privacy. It will also see a changing role for government, transport authorities and the private sector, requiring collaboration and partnership, in order to provide users with a transport system that gets them from A to B in a seamless, safe and low carbon way.

Intelligent Transport Systems UK's 175+ members stand at the forefront of the latest developments in transport technology. They have the tools, understanding and technical knowhow to provide an effective and future-facing transport network. In this document, we set out the policy recommendations that will enable our transport system - and the intelligent transport sector - to thrive and succeed.

Whatever the outcome of the coming General Election, ITS UK looks forward to working with all policymakers to support a better, technology driven transport network for all.

<sup>1</sup> [Transport and environment statistics: 2023, UK Government, October 2023](#)

<sup>2</sup> [Public Finances Briefing, House of Commons Library, January 2024](#)

# The benefits of a more intelligent transport network

## A strategic economic sector

- The sector is conservatively valued at £1.5bn and could generate £15bn a year for the UK economy.
- It also supports highly skilled job opportunities across the country and is a burgeoning export, with UK expertise valued across the world.
- An efficient transport network is a key enabler to a significant number of economic sectors.



## A greener society

- Using different passenger transport modes can reduce sector emissions by about 30%.<sup>3</sup>
- The intelligent transport sector will be vital in decarbonising the transport network, by reducing congestion as well as informing and incentivising the travelling public to low carbon forms of transport.



## More customer choice and better journeys



- Through better information and customer engagement, we can give the travelling public more choice in their journeys, and better awareness of the modes and services available to them, and the benefits of them.
- Technology will have a key role to play, whether its through public transport information systems or Mobility as a Service (MaaS) platforms.

## A more efficient, cost-effective system

- Intelligent transport has a key role in optimising the usage of our transport network, by making best use of current infrastructure assets and through the predictive maintenance of infrastructure.
- The data collected and analysed by ITS leads to evidence based decision making for future investments.



<sup>3</sup> Using different transport modes: An opportunity to reduce UK passenger transport emissions?, Transportation Research



## About Intelligent Transport Systems UK

Intelligent Transport Systems UK (ITS UK) is the voice of the transport technology industry. ITS UK provides a national platform to support the roll out of technology for a cleaner, safer and more effective transport network, both at home and abroad. We support our 175+ members - from both the private and public sector, and covering all sizes and disciplines - through

advocacy to policy makers, connecting people and organisations, promoting the industry overseas and supporting innovation across the intelligent transport ecosystem.

### Find out more:

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# Summary of Recommendations

## Connectivity and Autonomy

1. Make greater use of the significant amount of data available on the transport network to improve customer service and drive cost efficiencies, by focusing on breaking down siloes between government, at all levels, and industry.
2. Take advantage of the new regulatory framework for autonomous vehicles to ensure the UK is able to become a global leader in self-driving technology.

## Integration

3. Commit to the production of a UK-wide Mobility as a Service (MaaS) Strategy, with consideration across all transport policy, which local areas will use to ensure that their MaaS implementations are interconnected, compatible and affordable.
4. Utilise industry expertise to speed up the roll out of smart ticketing, supported by a commitment to fares parity.
5. Introduce a MicroMobility Bill to create a new regulatory framework for e-scooters and other forms of micromobility.

## Sustainability and Society

6. Deliver a roadmap to the gradual introduction of mobility pricing, that incentivises the fairer and sustainable use of the transport network.
7. Leverage technology to achieve the UK's transport safety ambitions. This will require the maintenance and renewal of current technology, alongside the introduction of new solutions along the network.
8. Support Demand Responsive Transport by putting it on an independent regulatory footing with equivalent VAT treatment to other modes of public transport.

## Industry Growth

9. Support a different approach to the procurement of transport technology that supports funding for operational expenditure for local authorities.
10. Prioritise a home-grown intelligent transport industry as a key export of strategic value to the UK.



# A Connectivity and Autonomy

Developments in technology are allowing for a more connected, and automated, transport network, meaning greater information sharing between vehicles, infrastructure and service providers. Increasingly, automation and artificial intelligence is seeing decisions traditionally made by humans, now being taken by machines. This new world will require a new approach to transport policy.

**T**here is more data being produced by our transport network than ever before.

Innovations in telecoms are giving us fast and affordable connectivity and precise location referencing; data from vehicles, other sensors and network operations are allowing real-time information and multimodal mobility opportunities that can be accessed from a range of mobile devices. Increasingly, organisations are learning how to integrate and use this data for the betterment of the travelling public. The digitalisation of transport is neither theoretical nor futuristic - it is happening today and accelerating across more and more of the network.

However, the better use of data will not happen on its own - and it is essential that the UK transport industry keeps up with both other UK industries and the international transport market. As the Transport Data Strategy identified, there are many reasons why data may not be shared or used fully.<sup>4</sup>

## Reasons why data may not be shared or used fully

- **Discoverability** - not being able to find the data needed
- **Privacy, security and ethical concerns as well as wider cultural factors within organisations** - not being able to share.
- **Legal, monetary and contractual barriers** - being uncertain over what can be shared, and at what level.
- **Lack of widespread data literate culture and technical skills across the transport sectors** - not knowing how to share and how to extract value from the data.
- **Lack of incentives to invest in and make data available** - not being able to make the business case to unlock the funding and resources to share.
- **Data standards and quality** - not knowing in what format to share data and being concerned about sharing imperfect data.
- **A lack of leadership in the transport data sector** - not prioritising or valuing sharing, or lacking a clear sense of purpose as to why data should be shared.

[Source: Transport Data Strategy, 2023]

The Government has a key role to play in supporting transport authorities to make better use of data. Positively, projects like the Bus Open Data Service, National Parking Platform and Rail Data Marketplace are leading the way in supporting a more open approach to transport data. But much more can be done.

For example, connected vehicles are already commonplace on the road network, interacting with other vehicles and infrastructure and sharing data that allows for smoother and more efficient journeys, and supports the safety of road users. However, the use of this data is restricted by siloes across transport authorities and the question of 'who pays' for these services. Increasingly, benefits of these technologies are being missed due to a lack of a strategic approach

across vehicle manufacturers, mobile network operators and road operators. Government has a key role to play in bringing these sectors together to support this growing industry.

In 2020, the Department for Transport published a Connected Vehicle Data Research report, setting out how connected vehicle data could be utilised, for example, through talking traffic systems that optimise traffic flows.<sup>5</sup> This document should be revisited and developed further, with a national connected vehicles strategy set out. Whilst trials of this technology

<sup>4</sup> [Transport Data Strategy](#), Department for Transport, 2023

<sup>5</sup> [Connected Vehicle Data Research Report](#), Department for Transport, 2020

have taken place across the UK, the Government should now focus on how a roll out can be achieved nationally, through mechanisms like the Intelligent Traffic Management Fund, and how businesses can develop a route-to-market.

Local and transport authorities, as key purchasers and users of transport data, will be essential in creating a more data-led transport network. Large transport authorities, such as regional and subnational bodies may have the capabilities and skills to invest in their data infrastructure, but this is not often the case for local authorities, who face an inadequate and diverse legacy infrastructure. This acts as a barrier to the availability, integrity, and uniformity of data. Because Government mostly funds capital expenditure, local authorities are encouraged to buy data on an ad hoc basis for individual projects instead of building strategic data capabilities, with a well-considered and city-scale understanding of transport.

If we want to see local authorities take a more strategic approach, they will require funding for operational expenditure, to provide the capabilities to keep data services running. This expenditure would likely have a significant return on investment, as data services would reduce costs in other areas, such as by reducing the need for human

monitoring of infrastructure assets.

In the long term, this requires a change to funding models for local authorities, recognising the increasing need for recurring spend as part of building an intelligent future driven by data, systems and technology. (see Recommendation 10). In the short term, the Government should set aside a fund, as it has done for road maintenance and potholes, to support operational expenditure of data systems and the upskilling of the local authority workforce. For larger transport and arms-length bodies, a greater focus on breaking down siloes between organisations and creating a standardised framework for the sharing of data is needed.

### Recommendation 1



Make greater use of the significant amount of data available on the transport network to improve customer service and drive cost efficiencies, by focusing on breaking down siloes between government, at all levels, and industry.

Self-driving technology is expected to generate significant benefits to the UK. According to the SMMT, the

rollout of connected and automated mobility (CAM) technology could produce some £66 billion in economic value by 2040 as well adding 342,000 additional jobs and helping to save 3,900 lives and prevent 60,000 serious accidents.<sup>6</sup>

The Automated Vehicle Act, which received Royal Assent in May 2024, sets out a legal framework for the national introduction of automated vehicles. The new law is a positive step, providing a way forward for the growth of the sector from the trials conducted around the country, to permanent, path-finder schemes. The quickest uptake will be across sectors like agriculture, mining and logistics, where this technology can be introduced more rapidly.

The new Act, however, is only the start of the journey to CAM. There are a number of key areas the Government will need to prioritise, including:

- **Investment:** How can the Government generate investment from the private sector to support the growth of the industry?
- **Scaling up trials:** Building upon the work of the Centre for Connected and Automated Vehicles (CCAV), Zenzic and CAM Testbed, how can the UK scale up trials into larger pathfinder schemes?
- **Clarifying the regulatory environment:** The Act provides

## The importance of Smart Data

Smart Data offers consumers the ability to take greater control of their data through 'data portability', where individuals can obtain and reuse their personal data for their own purposes across different services. A clear example is open banking, where consumers have been put in charge of their own data and are able to benefit from a multitude of services from it.

It is estimated that greater data mobility could increase GDP by £27.8 billion per year<sup>7</sup>. In particular, Smart Data could have a transformational impact on the transport sector, opening up greater mobility information and services to the public. It will be essential in creating a competitive market of transport providers, integrating journeys across different modes and improving how we understand and manage the transport network.

a valuable framework for the deployment of CAM, but secondary legislation, such as Statutory Instruments (SIs), will be required to further define the parameters of regulation.

- **Public Acceptance:** Studies have shown that public acceptance of autonomous vehicles increases when those surveyed have interacted with the technology. Yet, public acceptance remains low - according to the Institution of Mechanical Engineers, seven out of ten (70%) of the public indicated they would be uncomfortable travelling in an autonomous vehicle with no human control, at for example 70 mph.<sup>8</sup>

- **Data sharing:** Continued data sharing around the status of automated vehicles on the network will be essential, not only for the continual improvement of the technology, but also to support public confidence. The BSI Digital Commentary Driving proposes that all self-driving vehicles should collect a standardised set of data that can be shared for independent analysis, such as operational status and objects under observation by the AV.<sup>9</sup> How this data is collected, who collects it and how it is shared will be vital to the continued improvement of CAM.

ITS UK urge the incoming Government

to build upon this positive work and ensure the roll out of CAM supports a safer, more efficient transport network for all.

<sup>6</sup> [Connected and automated mobility: The UK economic and market opportunities](#), SMMT, November 2023

<sup>7</sup> [The Smart Data Roadmap](#), Department for Business and Trade, April 2024:

<sup>8</sup> [Public Perceptions: Autonomous Vehicles Survey Results](#), Institution of Mechanical Engineers, August 2023

<sup>9</sup> [Digital Commentary Driving](#), BSI, June 2021

## Recommendation 2



Take advantage of the new regulatory framework for autonomous vehicles to ensure the UK is able to become a global leader in self-driving technology.



# B Integration

Increasingly, the public want their journeys to be seamless, allowing them to move between all modes in a frictionless, accessible and easy way. In the past, transport has very much been considered in siloes - within the rail, light rail, bus, road, ride-hail, micromobility, active travel, freight, carsharing, parking and demand responsive industries. Yet, if we are to encourage the use of public transport to reduce carbon emissions, we will need to look across these modes and break down these siloes, providing one, holistic and integrated transport network.

**M**obility as a Service (MaaS) is defined as the integration of “various forms of transport and transport-related services into a single, comprehensive, and on-demand mobility service”.<sup>10</sup> Put simply, Mobility as a Service is a way of making it easier to travel using any form of public and private transport, without having to own assets like a

car, bike or scooter.

It does so by combining transport services from public and private providers, typically through a unified portal or app to create, manage and pay for the trip. A user can then pay per trip or a subscription, which offer mobility based on an individual’s travel needs.

## Core Components of MaaS

<p><b>An efficient routing solution</b></p> <p>It is essential that travellers are given the best modes and timing for their journey. Intelligent routing algorithms and up to date real time information are essential to provide a bespoke journey plan for every user - it is highly likely every single route will be unique.</p>	<p><b>A single payment solution</b></p> <p>In order to make it user-friendly and attractive, a Mobility as a Service solution must make it easy and safe for people to pay. The solution should not have to entail having multiple accounts with multiple providers. The solution has one back-system payment engine where each operator is paid according to their contribution to the journey.</p>
<p><b>Integrated, co-operating transport services</b></p> <p>MaaS requires travellers to move across more than one mode of travel. For this to be most effective, the solution requires a degree of collaboration and joined-up thinking between operators, so a bus does not arrive at a railway station two minutes after a train has left, 28 minutes before the next one. Indeed, MaaS systems can help identify where transport systems are not allowing smooth cross-modal journeys.</p>	<p><b>A brand</b></p> <p>A key part of a Mobility as a Service solution is the ability to easily understand what you are getting and for how much. A simple, cohesive brand is vital to allow customers to embrace the solution and interact with it. This also allows different transport providers to clearly signal that they are part of the MaaS solution.</p>

<sup>10</sup> MaaS Alliance, [Mobility as a Service](#) [Accessed 03 March 2024]

<sup>11</sup> Sell2Wales, [Mobility-as-a-Service \(MaaS\) Technology Partner Tender Notice](#) [Accessed 03 March 2024]





MaaS will have a crucial role to play in bridging the gap between different modes of transport, offering a better user experience for the travelling public and providing an alternative to private car journeys, thereby supporting a lower carbon transport industry.

In the UK, there has been positive progress on the development of MaaS, both in the public and private sector. The Government-funded four Future Transport Zones, in Portsmouth and Southampton (Solent Transport), Transport for West Midlands (part of West Midlands Combined Authority), Derby and Nottingham and the West of England Combined Authority, are spearheading the UK's approach with the development of MaaS platforms like Breeze in the Solent area. In Scotland, the 2018 MaaS Investment Fund committed to £2 million to test the concept of MaaS, with projects like HISTRANS' GO-HI app. In Wales, Transport for Wales has developed proposals to work alongside a technology provider to deliver a MaaS app.<sup>11</sup>

Elsewhere, Worcestershire, Milton Keynes and Telford & Wrekin have partnered with Citymapper to offer enhanced, integrated journey planning to passengers in their areas. To support the sector, the Government has also produced a MaaS Code of Practice, setting out guidance for how transport authorities can support MaaS schemes.<sup>12</sup>

In the private sector, companies such as Uber, Lime, Enterprise and Trainline are integrating their systems with other modes, expanding beyond their traditional business models to offer customers last-mile connections. Increasingly, major transport hubs, like airports, and businesses are looking at how they can provide MaaS solutions as a way of lowering their carbon emissions, by reducing the number of private vehicle journeys to and from their sites.

Government has a key role to play in setting a strategic direction for MaaS, and whilst there has been positive progress, MaaS is currently seen in the UK as an 'add-on' to wider transport policy, or is currently limited to trials taking place in specific regions. For

the next Government, there needs to be a vision of how we move from these trials, such as those in the Future Transport Zones, to a more strategic vision of how MaaS will be rolled out. And, if MaaS continues to be implemented on a local authority by local authority basis, then Government must provide the strategy and standards to ensure that journeys across these invisible boundaries will work seamlessly and that cities and counties can benefit from compatible software platforms produced with an economy of scale. Getting this right will be essential to the introduction of other transport policies too, like mobility pricing (see Recommendation 6).

A strategic vision should consider what the role of the private and public sector will be, how current progress can be built upon and, eventually, scaled up to a UK wide approach to MaaS, and how operators and businesses can be brought together behind this vision, to ensure their buy-in. It will require Government also to consider how it currently works, and to bridge across different and traditionally siloed transport industries to enable a more joined-up approach to decision making. This will require the Department for Transport to think increasingly at a multi-modal level, and for the decision-making process to consider all transport modes.

Delivering MaaS will be crucial in supporting a more joined up and accessible approach to transport, as well as supporting the decarbonisation of the network.

### Recommendation 3:

Commit to the production of a UK-wide Mobility as a Service (MaaS) Strategy, with consideration across all transport policy, which local areas will use to ensure that their MaaS implementations are interconnected, compatible and affordable.

**Smart ticketing is a key enabler of greater transport integration.** Transport for London's Oyster system

was an early pioneer in allowing greater connectivity across London, with other nations across the world adopting the technology since its implementation 20 years ago. Now, many other cities and regions across the UK have adopted contactless payment systems, including the Pop Card in the North East of England and Swift Card in the West Midlands.

Smart ticketing offers considerable benefits to passengers, providing greater convenience and faster access to stations as well as giving passengers great information about fares, journey times and when disruption occurs. For the operator, smart ticketing systems can give insights into passenger movements and travel patterns, allowing them to in turn better optimise their service. And, ultimately, smart ticketing is an essential pre-cursor to a truly integrated network that utilises MaaS (see Recommendation 3).

Currently, smart ticketing is evolving, with the shift to Mobile Pay as You Go, where customers use their mobile phones to activate their journey and pass through a ticket gate, and with the fare price determined by the journey they make. Contactless ticketing and barcode digital tickets are only expected to grow in use over the coming years. In February 2024, the Government announced that more than 90 stations across the Midlands and the North would see 'pay as you go' pilots implemented, with a launch planned for 2025.<sup>13</sup> In the South East of England, 53 stations are being added to the PAYG network through Project Oval.<sup>14</sup>

These trials are positive for the regions and are delivering progress in smart ticketing, but efforts should be made to speed up the roll out. In rail, responsibility for the roll out, including specifying, piloting, procuring and implementing these solutions currently resides with the Great British Railways Transition Team, but current existing

<sup>13</sup> Department for Transport, [Tap-in, tap-out train travel is on track for the West Midlands and Greater Manchester](#) [Accessed 3 March 2024]

<sup>14</sup> RailSmarter, [What is Project Oval?](#) [Accessed 3 March 2024]

retailers in the market could offer their capabilities to speed this up, and would build upon existing PAYG apps rather than requiring the creation of new ones. This will help deliver mobile PAYG faster, in a more agile and innovative way.

Central to public support for smart ticketing is the knowledge that customers are getting the best fare price, particularly on the rail network. However, there are occasions when PAYG may not be the best rate when compared to pre-purchased tickets, due to fare capping, journey times, the particular route used or concessionary rates. It can be very difficult for customers to understand whether they are paying the best fare. Fares reform, currently being explored by GBRTT, should be prioritised, with a shift to single leg pricing that provides a consistent and easy-to-understand approach. Fundamental to this is a commitment to fares parity across all methods of purchasing a ticket - so that you get the right fare whether you buy your ticket at a machine, online or via PAYG. The option to provide daily or weekly fare capping should be extended to all retailers, so that customers pay the right price for all vendors.

#### Recommendation 4:



Utilise industry expertise to speed up the roll out of smart ticketing, supported by a commitment to fares parity.

**Micromobility schemes** are an essential part of an integrated transport network, as well as a growing global market - worth £37 billion in 2020, and predicted to grow to over £169 billion by 2030.<sup>15</sup> Micromobility schemes are also an essential part of shifting to a more integrated transport network, with many trips acting as a 'in-between' for other modes of public transport.

However, ensuring micromobility schemes are safe, have support from local communities and have the right regulation and governance in place is increasingly pressing, in order for this

form of transport to thrive. Continued support for Active Travel England will be required if the next Government is to meet the target for 50% of journeys in UK towns and cities to be walked or cycled by 2030.

In England, rental e-scooters are available to ride in selected local authority areas as part of the Department for Transport's national shared e-scooter trial, implemented in order to gather data on their usage, safety and environmental benefits. These trials were previously due to end in May 2024 but are currently extended to May 2026, and have been enabled through use of Vehicle Special Orders (VSO). However, this is not a viable long-term solution, and doesn't apply to privately owned e-scooters which remain illegal to use on public roads and spaces. A lack of dedicated regulations for e-scooters thus leaves industry uncertain about the future long-term viability of shared micromobility schemes, and the market prospects for e-scooters in general.

Government should legislate to create a suitable long-term regulatory framework for both shared e-scooter schemes and privately owned

e-scooters, setting out regulations for the safe use of these low speed, light-weight, zero-emission vehicles so that there is certainty for users, operators, manufacturers and transport authorities. They would advocate for a flexible and proportionate approach to technical regulations that is performance-based - encouraging innovation by being open enough to allow for new technologies to develop, whilst also having a clear focus on improving safety, sustainability and accessibility for users and the public.

#### Recommendation 5:



Introduce a MicroMobility Bill to create a new regulatory framework for e-scooters and other forms of micromobility.

<sup>15</sup> Micromobility Market Size, Share, Competitive Landscape and Trend Analysis Report by Propulsion Type, Vehicle Type Sharing Type and Age Group : Global Opportunity Analysis and Industry Forecast, 2021-2030



# C Sustainability and Society

Transport is the biggest emitter of carbon dioxide emissions, as well as contributing significantly to air and noise pollution. Technology and innovation can help reduce the impact of transport and encourage the travelling public to utilise lower carbon forms of travel.

It has been 60 years since the the Smeed Report first proposed road user charging in the UK. Although a politically sensitive topic, there is no denying the issue that road tax revenue is falling, ultimately leading to a £35 billion hole in government finances, as we shift to greener vehicles. Given these taxes pay far more than just for the upkeep of the road network, there will be important questions for policy makers around how they wish fill this financial hole.<sup>16</sup>

Across the UK, road pricing, clean air and low emission zones have been introduced, for various policy objectives. Yet, a national system would have the biggest impact and benefit, with a distance-based smart road user charging scheme offering significant benefits across the UK in terms of reducing pollution and incentivising the public to take other forms of transport.

The biggest barriers are political; road user charging can often be seen as another road tax, so any implementation would need careful consultation with the public and explanation of why the policy was being implemented. As the Campaign for Better Transport has shown, ‘pay as you drive’ polices are becoming more popular amongst the public, with polling showing that 60% of people believe vehicle taxation needs reforming, with only 6% disagreeing. 69% would be more supportive of pay as you drive if public transport was made more affordable and better connected.<sup>17</sup>

A further consideration is having a national strategy for ensuring interoperability of payment across schemes that might be implemented in different cities or road networks. The administrative burden on road users having to pay multiple road network operators for a single journey can be eliminated by establishing contracts with payment service providers. This

approach is taken in other countries, for example in Ireland, where one toll payment account can be used to pay tolls on all motorways and for some other services such as parking.

Ultimately, however, the technology is there to implement a national road user charging scheme, yet the political barriers and public perception of such a scheme provide the most significant barrier to implementation. Ensuring a scheme is equitable, introduced in a gradual way that allows users to understand and trust the new system, and effective communications with the public will be key. Any scheme must also ensure it supports those most in need in society, if it is to win public confidence.

The next Government should work with industry to begin a gradual roadmap for the introduction of a national road pricing scheme, beginning an open and honest public discussion on why a national scheme is needed, and how a new way of road pricing can be introduced equitably.

## Recommendation 6:



Deliver a roadmap to the gradual introduction of mobility pricing, that incentivises the fairer and sustainable use of the transport network.

<sup>16</sup> [Road Pricing Report](#), Transport Select Committee, February 2022

<sup>17</sup> [Pay-as-you-drive: The British public's views on vehicle taxation reform](#), Campaign for Better Transport, September 2022

Keeping people safe is one of the most fundamental requirements of any transport system. Yet, road traffic deaths and serious injuries have not improved on the road network in more than a decade, with some 30,000 killed or seriously injured each

year.<sup>18</sup> Similarly, on the rail network, consideration needs to be given to the safety of passengers to ensure our public transport network is available to all.

Technology has a key role to play in keeping people safe. Whether

through the better use of eCall data from connected vehicles, the CCTV that discourages anti-social behaviour at stations or the use of technology to monitor stopped vehicles on the motorway network; technology will only become more important in keeping us safe.

## An approval process for enforcement technology that works

Enforcement technology is essential in ensuring road users are kept safe. Yet, Home Office Type Approval (HOTA), the testing and certification process overseen by the Home Office that enforcement technology must pass before evidence from enforcement devices can be admissible in UK courts, has acted as a barrier to innovation.

ITS UK would like to see the process reformed. Work has already begun, with the Home Office launching a call for evidence that found that “respondents felt time delays and process inefficiencies are hindering HOTA, expressing a desire for improvements in

collaboration, communication and documentation.”<sup>19</sup>

The next Government should continue this process of reform, with a particular focus on achieving:

- **Regular dialogue:** A return of monthly meetings where assessors from DSTL would meet with manufacturers.
- **Timelines for approval:** Sensible timelines could be agreed for a project at the application stage and assets within DSTL can be allocated to manage the application to its conclusion.
- **Fast track process for new modifications:** That a new modification process for the approval of already approved equipment could be quickly agreed.

- **Update SpeedMeter Handbooks:** The Speedmeter handbooks should be updated as a matter of urgency. These should be changed to align to existing standards and to concentrate on the requirements for the record produced by the equipment rather than how the equipment operates. In particular, there is an opportunity to allow devices to be used for multiple purposes.



On the road network, the cessation of the smart motorway programme has provided questions to the sector on how we can effectively deliver technology onto the network, and the critical need to bring the public with us. ITS UK believe implementing future technology onto the network will require a funded programme of consensus building, agreement, planning and coordination and this will best be achieved through a long-term National Motorway Technology Transition Strategy. This would bring together motorway and local authorities with national and subnational bodies to provide a holistic long-term view on how emerging technologies can be integrated alongside existing ones, in a coordinated and structured way. Of course, new technology is of

little value if we are not maintaining what is currently on the network. Obsolescence of assets on the road and rail network poses a significant challenge to transport authorities, whether it's the need to replace ageing traffic signals across the road network, or the 65% of signalling equipment units on the rail network that will become life expired over the next 15 years.<sup>20</sup> The next Government will need to consider a programme of maintenance and renewal, ensuring what we have on the transport network is maintained with a programme of managed replacement of legacy technology in a consistent manner across the UK.

## Recommendation 7:



Leverage technology to achieve the UK's transport safety ambitions. This will require the maintenance and renewal of current technology, alongside the introduction of new solutions along the network.

<sup>18</sup> [Manifesto for Road Safety](#), PACTS, 2024

<sup>19</sup> [Call for evidence summary: Home Office type approval of road traffic law enforcement devices](#), Home Office, April 2024

<sup>20</sup> [Statement on Digital Signalling](#), PoliticsHome

**Demand Responsive Transport (DRT) is an innovative approach to public transport that utilises technology to provide dynamic, on-demand bus services for local communities.** DRT is particularly effective in providing a public transport link for those with limited transport alternatives, such as in rural areas.

The Government has funded a number of DRT schemes across the country, through the Rural Mobility Fund, although the number of schemes in the UK lags behind European counterparts. Supporting this innovative form of public transport will be increasingly important as the UK seeks to decarbonise the transport network in hard-to-reach communities.

However, whilst other nations treat DRT as its own form of public transport - with its own defined rules and regulations - in the UK, DRT faces difficulties from not having its own regulatory framework. A clear example of this is the current VAT system, which encourages operators to use disproportionately large vehicles. These vehicles, typically mini buses with up to 18 seats, are not adapted to the usual number of passengers

expected to take advantage of DRT schemes - comparable services in places such as Germany typically use minivans with six to eight seats.

In the UK, only Public Service Vehicles (PSV), defined by law as having 10 seats or more, benefit from the zero-rated VAT exemption. Any DRT scheme that uses smaller vehicles falls within the Private Hire Vehicles (PHV) rules and therefore is subject to VAT on fares. Given that DRT is currently used to supplement local fixed-line public transport networks as well as providing first-mile or last-mile service for others, applying VAT to fares for parts of a public transport service adds unnecessary complexity for passengers and operators alike.

Given these challenges, local authorities usually opt for larger vehicles. This in turn entails

significantly higher purchase, operation and maintenance costs as well as resulting in a higher environmental footprint. Furthermore, the continued shortage of bus and heavy vehicle drivers in the UK is unnecessarily exacerbated since the smaller vehicles require a standard driving license for which the pool of drivers is much larger.

The VAT issue requires a short term change, which would be revenue neutral, by the Treasury. Going forward, DRT should be placed on its own regulatory footing, as a designated form of public transport, allowing new services to flourish and spread around the country.

### Recommendation 8:

Support Demand Responsive Transport by putting it on an independent regulatory footing with equivalent VAT treatment to other modes of public transport.



# D Industry & Growth

Transport is not just about how we travel here in the UK; it is also a vital sector of importance to the economy, investment and jobs. With the global ITS Sector currently projected to be valued at \$51.29 billion by 2030, with a compounded annual growth of 7.7%, now is the time for the UK to back this growing sector, and develop a competitive edge on overseas markets.

Local authorities can benefit significantly from emerging technologies, yet often, procurement processes are not set up to utilise them. Large transport authorities, such as regional and subnational bodies often have the capabilities to invest in their data infrastructure, but this is not often the case for local authorities.

Because Government mostly funds capital expenditure, local authorities are encouraged to buy transport technology on an ad hoc basis for individual projects instead of building strategic capabilities. If we want to see local authorities take a more strategic approach, they will require funding for operational expenditure, to provide the capabilities to keep services running.

In particular, the split between capital and operational expenditure can limit local transport authorities

from procuring 'software as a service' products or from utilising innovative new products, even where - in the long term - these products and services can reduce costs. The situation is exacerbated by the unstable and uncertain funding environment for local authorities.

In the long term, this requires a change to funding models for local authorities, recognising the increasing need for recurring spend as part of building an intelligent future driven by data, systems and technology.

Changes to procurement will also be required. It is positive to see the Crown Commercial Service undertaking a review of its Transport Technology and Associated Services (TTAS) Framework, this will help ensure procurement processes don't promote 'tried and tested' products and services over innovation and technology.

## Temporary Traffic Management: An example of the OpEx/CapEx Dilemma

When considering options for temporary traffic management during the construction of a project, local authorities often face choosing between a 'lower cost' option which requires less operational expenditure or a 'higher cost', smarter option that may require additional operational expenditure, but which can end up being more cost-effective in the long run. Intelligent temporary and portable traffic management systems are now available and being improved to emulate permanent systems, but often, the solutions that have lower upfront cost end up being the ones chosen. These solutions often are less effective in managing traffic, provide less information for the local authorities to use and can even lead to delays and congestion if not delivered effectively.



## How could the public procurement of transport technology be improved?

- 1. Wider Economic and Societal Benefits:** Consider the broader impact beyond immediate costs. For instance, increasing road capacity through technology without physically widening roads can improve traffic flow and reduce congestion.
- 2. Quality Over Price:** Prioritise Quality when evaluating bids. Sometimes a higher upfront cost can result in better long-term value.
- 3. Social Value:** Look beyond financial metrics. Procurement decisions should also consider local community benefits, such as job creation or environmental stewardship.
- 4. Whole Life Cost and Return on Investment:** Evaluate not only the initial capital expenditure but also ongoing operational costs (maintenance, energy, asset refresh etc.). Procurement should consider when the Return on Investment will be realised.

A review of procurement and a healthier approach to risk in the public sector will ensure transport authorities are able to implement innovative technology more effectively. There may be opportunities too, for the private sector to fund transport improvements for the public, particularly in R&D for emerging technology.

### Recommendation 9:



Support a different approach to the procurement of transport technology that supports funding for operational expenditure for local authorities.

The UK must act now if it wants to build on its legacy as a transport technology innovator, and seize the opportunity to become a global market leader in the next technological revolution in transport.

The UK ITS industry is already a major exporter - from a survey of 100 companies in the industry, the export revenue totalled some £175 million, with each company exporting an average of £4.1 million, 26% of total

their annual revenue. Most importantly, 55% stated they were willing to export more going forward.<sup>21</sup>

What is clear is that there is a genuine will in the private sector for greater overseas trade, supporting the Government's export targets. And the sector's priority markets - United States, Australia, Germany, France and the Netherlands - are all nations where the UK has sought to develop better trading relationships in recent years.

## The Opportunity from Birmingham 2027

Birmingham has been named as the preferred city for the ITS World Congress in 2027. These yearly events showcase smart mobility and emphasise the importance of raising awareness of mobility solutions and services among policymakers, experts, thought leaders and stakeholders.

They represent the ultimate platform through which the international ITS community can meet, discuss, and exchange knowledge throughout the sector. Each World Congress welcomes more than 12,000 attendees from over 100 countries worldwide.

At the Birmingham ITS World Congress in 2027, the focus will be on 'Future Transport: For Real'. The Congress will unpack the vision for our transport systems, the cutting-edge ideas, and the blockers that stand in our way.

The Congress will put the spotlight on the UK's businesses, educators, public authorities, and third sector.

Birmingham 2027 will be a great opportunity for the next UK Government, working alongside the West Midlands and ITS industry, to demonstrate the best of transport technology and innovation.



What the sector requires is support from Government to continue to grow exports. When asked what would help them achieve further growth, the industry is clear: first, promotion of the UK industry overseas, second, simpler trade rules and, third, reduced tariffs in key markets.

Going forward we urge the next Government to priorities intelligent transport and smart mobility in its overseas and exports promotion.

### Recommendation 10:



Prioritise a home-grown transport and intelligent transport industry as a key export of strategic value to the UK.

<sup>21</sup> ITS UK, [ITS Exports Study, November 2023](#).



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