

Transport Select Committee call for evidence on the future of transport data

Submission from Transport for the South East

Introduction

1.1 Transport for the South East (TfSE) welcomes the opportunity to respond to the House of Commons Transport Select Committee's Call for Evidence on the future of transport data.

1.2 This document constitutes the draft officer response to the request from the Transport Select Committee. It will be presented to the TfSE Partnership Board in October 2023 for them to agree. A further iteration of the response may therefore follow.

1.3 TfSE is a sub-national transport body (STB) for the South East of England, bringing together leaders from across local government, business and transport sectors to speak with one voice on our region's strategic transport needs. Since its inception in 2017, TfSE has quickly emerged as a powerful and effective partnership for our region. We have a [30-year transport strategy](#) in place which carries real weight and influence and will shape government decisions about where, when and how to invest in our region to 2050. The Secretary of State has confirmed that they will have regard to our strategy in developing new policy. We work closely with the Department for Transport (DfT) DfT to provide advice to the Secretary of State and our ambition is to become a statutory body with devolved powers over key strategic transport issues.

1.4 Our principal decision-making body, the [Partnership Board](#), brings together representatives from our 16 constituent local transport authorities, five Local Enterprise Partnerships, district and borough authorities, protected landscapes, Highways England, Network Rail and Transport for London.

1.5 Our [Strategic Investment Plan \(SIP\) for South East England](#) provides a framework for investment in strategic transport infrastructure, services, and regulatory interventions in the coming three decades. The plan provides a framework for delivering our Transport Strategy, which:

- Is a blueprint for investment in the South East.
- Shows how we will achieve our ambitions for the South East.
- Is owned and delivered in partnership.
- Is a regional plan with evidenced support, to which partners can link their own local strategies and plans – a golden thread that connects policy at all levels.
- Provides a sequenced plan of multi-modal investment packages that are place based and outcome focused.
- Examines carbon emissions impacts as well as funding and financing options.

1.6 The plan presents a compelling case for action for investors, including government departments – notably the Treasury and Department for Transport (DfT) – as well as private sector investors. It is written for and on behalf of the South East's residents, communities, businesses and political representatives.

1.7 TfSE welcome this inquiry by the Select Committee into future transport data. Specifically, to what extent to which the Government takes a long-term, national and informed approach to predicting, providing for, maintaining and developing the country's transport data needs. Our work is evidence based and reliant on access to quality data. As such we welcome the opportunity to contribute to this call for evidence because we understand both the benefit of good data and how it can be used to inform decisions, as well as the risks associated with poor or lack of data.

1.7 We trust that our response to the questions posed below provide value to the Committee. The questions from the call for evidence are listed throughout the rest of this document in bold with TfSE's responses below.

2. (Question 1). How might planning and delivery of transport infrastructure and services be changed by greater sharing and use of transport data over the medium and long terms?

2.1 By sharing transport data, costs can be reduced for transport planners at all levels. The increased use of and access to transport data over the medium and long term will give more insight into the travel patterns of users. It would enable a 'holistic view' of different travel modes on certain high usage routes so decisions could be made regarding improvement of multiple travel options on the same corridor. For example, by looking at road, rail and bus routes between two major economic hubs greater insight will become available regarding interventions e.g., increase in rail frequency and the effects on road congestion. In the long term once data is agreed, shared and collected decisions can be informed using empirical data collected both before and after similar schemes. Improved data could also help to better assess the extent to which objectives have been achieved and give greater insight as to which elements have delivered and how accurate the modelling and predictions were.

2.2 The standardisation of data collection practices would facilitate the exchange of information between parties, e.g., Government, Transport authorities, Consultants, Commercial transport providers and investors.

2.3 While TfSE support the sharing of data we believe that greater benefit could be achieved through central identification procurement and sharing of certain datasets by government or DfT. This would lead to a streamlining of project decision making and assessment across the country, as the metrics will be directly comparable. Through central identification of the right data government can then procure once to secure the best price and make it available to all Local Transport Authorities (LTA).

3. (Question 2). How might the travelling public, and local communities, experience the benefits of better use of transport data? What unintended consequences might there be?

3.1 Better use of transport data could lead to improved public transport options and inter-modal connectivity. By better understanding travel patterns operators will be able to better plan transport options that work for customers. More real time information for public transport will make people more likely to use it. A good existing example of this is real time bus location information. It allows users the freedom to choose to wait indoors if there is a known delay. Access to information can allow contingency to be planned for missed connections further on their journey (potentially through AI in the future) to remove anxiety of multi-modal trips and smooth interchange. Another is tap in/out ticketing making transition from different modes easier and more time efficient, including more smart and integrated ticketing across transport modes. Improved data use could lead to greater efficiency linking non-private car transport modes to make them more time and cost efficient. Improved quality and sharing of transport data would provide an opportunity a more integrated and multi-modal service offering for members of the public.

3.2 We would caution against collecting vast quantities of data in the hope that a use will be found for it. The collection and storage of data is expensive and should only be undertaken if the value in its use is greater than the cost of its collection.

4. (Question 3). How will it benefit the freight sector and the supply chain?

4.1 Data standardisation and improved sharing between freight operators and public sector bodies would enable local authorities to better plan for the needs of the freight sector in all their activities, including facilities such as lorry parks and services for freight and logistics drivers and operators. It would also enable better planning for the installation of more electric recharging, biofuel and hydrogen refuelling locations on the operators' most common routes. This will support the decarbonisation of the emissions from the sector by supporting the uptake of electric or hydrogen freight vehicles.

4.2 Better use of data offers the potential to improve efficiency and reduce both operating costs and carbon emissions through improved routing, reductions in empty running. There is a recognised issue of commercial confidentiality with freight operators not sharing data with central or local government because they do not want it shared with their commercial competitors. This issue would be best addressed through the development of a national freight data strategy led by the Department for Transport. It is disappointing that the Freight Mapping

Tool Discovery pathfinder study undertaken for the Department for Transport in 2020 has not led to further work on the creation of a national freight data hub.

4.4 Better data availability would allow Network Rail to plan for more freight paths, encouraging modal change and decarbonisation of the freight sector. It would also support planning authorities to take better account of where there is a need for additional road /rail interchanges and warehousing facilities.

4.5 Better data collection from the operators and sharing between them and local and central government would also facilitate the creation of the National Freight Network.

4.6 The lack of accurate operator data is also a barrier to being able to accurately quantify the value of freight, particularly rail freight, as demonstrated in Deloitte's report "Assessing the Value of Rail Freight" carried out for the Rail Delivery Group and published in April 2021.

5. Question 4. What are the potential uses of data for understanding usage and condition of assets like roads, rail track, charging points, vehicles and the kerbside?

5.1 Data can be used to understand peoples travel patterns and how these change over time. Combining data from traditional and emerging datasets, like mobile phone data, will enable a clearer picture of these changes to be developed. No dataset will give all the answers and the likelihood is that a combination of different datasets will be needed. Data collection must be conducted before the implementation of changes. This must be followed up during and after interventions are completed to understand their impacts and implement any lessons learned on similar schemes in the future.

5.2 Data can give insight into asset degradation and inform efficient maintenance. A good asset management system (not an IT system but a management system) that delivers effective maintenance with accurate effective data will deliver greater benefit than data alone.

5.3 Data requirements should be defined through a detailed understanding of the needs of all internal and external stakeholders including internal and customers. These requirements should not only define what data is required but also specify requirements for quality, which should include:

- Accuracy – the data is a true reflection of what it represents.
- Completeness - a complete set of data is available for each data record.
- Consistency – data is consistent in its definition, rules, format & value.
- Validity - all data held complies with data storage rules.
- Timeliness – Data reflects the current state and complies with organisational standards for data update timescales.
- Uniqueness - No duplication of data.

5.4 As Building information modelling (BIM) becomes more commonplace and data is more readily available accurate and appropriate digital twins can be developed for technical infrastructure. This will allow both risks and efficiency to be managed in alignment with the asset owners' objectives. BIM is a process involving the generation and management of digital representations of the physical and functional characteristics of places. BIMs are computer files (often but not always in proprietary formats and containing proprietary data) which can be extracted, exchanged or networked to support decision-making regarding a built asset. BIM software is used by individuals, businesses and government agencies who plan, design, construct, operate and maintain buildings and diverse physical infrastructures, such as water, refuse, electricity, gas, communication utilities, roads, railways, bridges, ports and tunnels.

6. (Question 5). What privacy, ethical, security, resilience and intellectual property issues arise in relation to gathering and sharing transport data, including location-based data about journeys and data with commercial value? How should the Government seek to manage and regulate these?

6.1 Transport data should be compliant with GDPR and commercial law to protect data privacy. Care must be taken to ensure that transport trends are aggregated to an appropriate level to ensure that individuals travel patterns cannot be implied

6.2 Consideration must be given to privacy and security when planning data collection to be shared widely across various groups. If data includes sensitive or private information then its suitability for open access will require evaluation. Organisations that are going to collect and or use personal data must ensure that they have adequate security across their network and consider the consequences of any security breach in order to put the required measures in place to secure it.

7. (Question 6). What are the biggest gaps in available data about transport networks and travel? What kinds of policy, planning or maintenance questions cannot currently be answered that we could answer with new, or more accessible, data?

7.1 There is currently a data gap in understanding whole life carbon of transport schemes at a network level including the carbon reduction/increase of mode shift as a result of new infrastructure.

7.2 There are some issues regarding access to and relevance of available datasets. For example, census data from 2021 is limited due to the Covid 19 pandemic. Alternative data sources that can provide similar information regarding travel patterns need to be considered to maintain good decision making. We would like to see this data sourced centrally on a national scale and then shared with stakeholders to assist with consistent decision making in the

aftermath of an extraordinary period. We feel it is important to consider how we can best support our decision makers without additional cost to them.

7.3 There is already a vast amount of transport data available, likely more than can be used. With increased connectivity of devices and the reducing cost of hardware and software there is a rapid increase in the data produced by the Internet of Things (IoT). Devices, vehicles, buildings and other items with network connectivity that allow them to collect data and share it with each other. This is resulting in exponential growth in the amount of data being generated.

7.4 Access to data rather than data availability is a core concern to enable the delivery of effective and integrated transport services. Data infrastructure is often unreliable, inaccessible, siloed or is not freely available. If our data infrastructure remains restricted it will stifle innovation, decisions around services will be biased based on information available and representation will be unequal. The availability of open data should be a priority to help make better investment and personal travel decisions. In order to achieve this private sector transport providers, central government and local transport authorities will need to open up more data. Currently data is not being shared in the transport sector due to concerns that shared data could lead to breaches in privacy, security and safety. A belief that the costs of sharing data outweigh the benefits; and focus by organisations on their own mode of transport, limits opportunities to better integrate services to the benefit of the travelling public.

7.6 The costs of collecting and sharing data can be prohibitive. Issues including ownership, licensing and revenue sharing need to be resolved before data can be shared. Adding consideration that real value is attained from combining multiple datasets to gain insight but the difficulty and cost of attaining and sharing these data sets often prevents this. Data owners find it hard to justify the time and cost required to make data shareable. Where data is sourced from third parties' costs can be even greater due to licencing conditions and the need to unpick or disaggregate the data.

8. (Question 7). How can the UK scale up from pilots, pockets of innovation and existing single-mode data sets towards an integrated, comprehensive landscape for transport data?

8.1 Data requirements should be considered at the earliest stages of any project to identify why it should be collected what can be collected, how it should be collected and how much this will all cost.

8.2 To assist organisations, we would support creation of a national data portal that all asset owners, all levels of government and stakeholders have access to. If data were available that would enable them to run their own queries and use the data to suit their business needs from a single source of the truth this could

support greater innovation of data use as the burden of collection and storage would be removed.

8.3 The creation of funding pots to take forward and scale up successful data pilots could stimulate innovation in the private sector and encourage public bodies to consider innovative data solutions to their transport needs.

9. (Question 8). How should data availability, and sharing by transport operators, suppliers and other bodies, be encouraged, facilitated and regulated?

9.1 If not centralised, government should specify data parameters that must be submitted at specified intervals and made available through the DfT or standalone web portal.

9.2 Cost of collection and reporting must be considered by government and funding increased for public bodies that will be expected to participate in the collection and reporting of a data as part of any national data repository. Improvements in the availability, and sharing of data by transport operators, suppliers and other bodies would be improved through better funding.

9.3 Data sharing would be encouraged if individual data controllers did not need data sharing agreements for each individual project they work on. Central government could reduce this barrier by having an overarching data sharing agreement that is agreed by any data controller signing up to the national portal (or similar).

10. (Question 9). What skills and capacity do operators, infrastructure providers and local transport authorities need in order to manage their own data well and get the most value out of available data? What help do they need to anticipate and cater for future requirements?

10.1 Improved specification of what data is required, how it should be collected and how government would like to receive it would support all of the listed users. The skills needed would need to be defined as organisations set out their data management policy and strategy in alignment with their internal and external requirements.

10.2 Data should be considered as an asset and assessed in the same way in terms of its value to an organisation as other capital assets. Organisations need to understand the value and limitations of any data they hold or plan to collect. The same data can be interpreted differently to give different answers to the same questions. We welcome this question and recognition that the skills and capacity of these groups is a consideration. How data is interpreted to inform knowledge is often more important than the data itself.

10.3 We are concerned that without relevant skills and management systems for data, a lot of effort may be spent collecting data that has limited value or that it will not be best utilised.

11. (Question 10). Is the UK's digital infrastructure sufficient to allow the greatest value to be derived from transport data?

11.1 The UK needs to rollout better mobile internet and high-speed broadband connectivity to deliver the greatest value from transport data. A standard level of service across the country is needed to enable data collection and use from remote rural to urban high demand areas. We believe that poor connectivity in remote areas limit the possibilities to provide technology driven transport solutions e.g., MaaS, real time passenger information and other technologies that will become available in the future. These areas are likely the most in need of innovative transport solutions as a consequence of them being more remote than urban environments with better access to digital and physical connectivity.

12. (Question 11). How effectively does the Government use data in appraising and prioritising transport investment?

12.1 We support a robust appraisal process to ensure transport investment will deliver the strategic objectives that are being sought. Whilst the recent changes to the Treasury Green Book have provided a shift in thinking, it is important to note that transport is an enabler, and so the current "Transport Assessment Guidance" (TAG) is often too narrow to fully capture the benefits of schemes, particularly when schemes are facilitating development and the provision of new homes and employment. In these cases, the use of a "Strategic Economic Narrative" to join up the traditional strategic and economic dimensions of the business cases can be useful to clearly set out the case for the scheme. This can be supplemented with additional (non-TAG) analysis and appraisal to capture the wider benefits gained by the housing and employment facilitated by the scheme, which can often differ from the more traditional definition of "dependant development."

12.3 In their response to the Green Book Review, DfT published "Capturing local context in transport appraisal: case studies" and the use of a wider range of appraisal tools and techniques such as those described in that document should be encouraged where appropriate, with those officials assessing business cases being open to considering these alternative assessments. Decision makers should follow the principles of the Green Book revisions and need to be made aware of the entirety of the 5-case business case, and the wider benefits and not overly focus on just the benefit cost ratio (BCR) within the economic case.

13. (Question 12). What milestones and ambitions should the Government set in this area? How effectively has the Government's Transport Data Strategy identified barriers to sharing and getting value from transport data, and the actions needed to overcome those barriers?

13.1 We recommend creation of national tools for LTAs to use that will assist them with the development of local transport plans etc. This can then be fed from a single 'source of the truth' across LTAs nationwide. Workshops should be held to work out how to get the most value from data and review what is and isn't providing value.

13.2 We recommend centralising the data through a national repository that provides value to be shared with all. If left to industry and LTA's, the risk is that data collection and sharing will continue to evolve independently with the result that data sets will be difficult to share and compare. In addition, incorporating data collected by others will continue to be time consuming.

13.2 Some barriers are identified in the Transport Data Strategy but there is no guidance on how to overcome them.

14. Question 13. What is the emerging best practice internationally, in terms both of developing standards and frameworks for sharing and using transport data, and supporting specific innovations? How does the UK compare, and how can it help to shape international standards?

14.1 TfSE do not have any comment to make in response to this question.