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TransportPlanning*Society*

The Second National Infrastructure Assessment: Call for evidence

Transport Planning Society response

About the Transport Planning Society

The Transport Planning Society (TPS) is the only professional body focusing entirely on transport planning in the UK. The aim of the Society is to raise the profile of transport planning and chart a course for the profession.

Introduction

The Second National Infrastructure Baseline Report was published by the National Infrastructure Commission (NIC) in November 2021. The report rightly identifies the three major future challenges:

- Reaching net zero
- Climate resilience and the environment
- Supporting levelling up

As a Society we believe that transport infrastructure should feature in all strategic themes, not just contribute to levelling up. The Commission should consider the wider role that transport has to play in helping address all challenges.

In particular, we believe there is another strategic challenge that might be termed "Community Acceptance". The community rejection of the notion of road pricing in Manchester and Edinburgh 10-15 years ago appears to have shifted to a position of reluctant acceptance as the loss of taxation resulting from increased use of electric vehicles has emerged. Community Acceptance helps shape political response and hence the availability of resources for the initiatives proposed.

There are also cases where the challenge is to choose between Capital or Revenue funded interventions or, indeed, a mixture of the two. The arguments that are adduced for comparison of Capital and Revenue projects in the rail context apply even more to buses and minor streetworks to assist buses. Major road improvements could potentially be avoided by a combination of minor improvements, better traffic and parking management, attractive and well marketed bus services coordinated with some form of road pricing so that motorists pay the full community costs of their journeys.

Turning to the Commission's challenges, we are surprised that Digital Transformation is singled out as a separate issue, as it is at the heart of many possible solutions, or at least provides an opportunity to address all three challenges. For example, digital transformation is already affecting many aspects of transport need and provision, such as by enabling working from home, the increase in e-shopping and the advent of mobility apps. Digital transformation involves access to and the availability of information and tickets; but will also influence the actual need to travel in the future, and the requirement for new transport infrastructure

Emerging technologies such as autonomous vehicles cannot be allowed to define government objectives. Instead, an early recognition of new trends, separating signals from the noise, should enable us to harness such technologies to support government objectives, not drive them. This requires early and continued monitoring. This is also true for the anticipation of and responses to the longer term impacts of Covid-19. Monitoring changes in travel behaviour is possible, and it must lead to infrastructure performance and resulting investment adapting to recent and future disruptions. The NIC response should be driven by evidence rather than aspiration.

Many of the ways of tackling all three challenges necessitates the spatial planning process to work hand in glove with transport planning and infrastructure. This needs to be effectively recognised in any infrastructure strategy.

Our more detailed response below focuses on two of the eight challenges and three of the sixteen questions posed in the baseline report. As the Transport Planning Society, we believe that this is where our expertise can add most value to the consultation.

Challenge 8.

Mass Transit systems

It is positive to see the Commission state that demand management policies will be needed in conjunction with Mass Transit solutions. This will not only support agglomeration and productivity, but also facilitate sustainable mode shift. Mass Transit can be rail or road (bus or LRT/tram) based and experience from North America is that systems lead to, or are developed most effectively in conjunction with, Transit Oriented Development (TOD).[1]

As has been seen with Nottingham City Council's Workplace Parking Levy[2], changes in travel behaviour cannot occur without the introduction of disincentives, like vehicle or parking charges, to dissuade private car and van use.

Improved connectivity and reduced congestion are not the only benefits of developing at scale Mass Transit systems. The Commission should also acknowledge:

- *Supporting levelling up:* in ensuring that Mass Transit systems serve less affluent areas - which have historically been overlooked regarding infrastructure investment - access to employment, education, and public services will be unlocked.
- *Reaching net zero:* the public are more in tune than ever before with regard to the impacts of climate change and the need for carbon neutrality,[3] and to capitalise on that attention and public goodwill, conversations should be re-framed to consider this.

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[1] Transit Oriented Development Institute. (2021) [http://www.tod.org/home.html]

[2] Centre for Cities. (2017) *Reviewing the funding and finance options available to city and combined authorities*. Centre for Cities. [www.centreforcities.org/reader/funding-financing-inclusive-growth-cities/reviewing-funding-finance-options-available-city-combined-authorities/#using-a-workplace-parking-levy-to-support-investment-in-public-transport].

[3] 1.Ipsos Mori. (2021) *The public recognise the link between climate change and health, and generally do not have strong views on the role of the NHS and social care in responding to climate change*. Ipsos Mori. [https://www.ipsos.com/ipsos-mori/en-uk/public-recognise-link-between-climate-change-and-health-and-generally-do-not-have-strong-views-role].
2. Ipsos Mori. (2021) *UK public highly supportive of COP26 goals but few expect the government to take the steps needed.* Ipsos Mori. [https://www.ipsos.com/ipsos-mori/en-uk/uk-public-highly-supportive-cop26-goals-few-expect-government-take-steps-needed].

However, there are certain challenges which also link to Challenge 9 (Interurban transport access). It is important to consider where related economic indicators such as wellbeing and levelling up fit in with productivity. The economic benefits of Mass Transit systems must be shared equally, recognising that much of the past funding in this area has been focused on specific affluent areas of city regions.[4] The Commission must also recognise that a modal shift to Mass Transit will lead to decongestion on the roads, and benefits may be lost to increasing car demand if not locked in (for example through road pricing or parking control mechanisms).

The Role of Active Travel

Largely left out of this document is recognition of the role that active travel can play individually and integrated with other sustainable modes. A high-quality and successful active travel network requires investment and changes to infrastructure prioritisation as an integral part of the initial spatial planning process, location and development design.

Walking and cycling can generate health, environmental, social and economic benefits; meeting national walking and cycling targets might generate savings of more than £500 million annually from air quality, congestion, and emissions improvements.[5] New walking and cycling infrastructure can also improve the accessibility of jobs and other local facilities and services, for example, by addressing issues of severance and affordability. This can, in turn, provide new economic opportunities for people living in areas with high unemployment rates and high levels of deprivation[6], and potentially reduce the need for more expensive road infrastructure.

Active travel as part of a multi modal system

Walking and cycling cater particularly well for shorter trips, which make up the majority of people's daily travel. In 2019, around 58% of car trips were less than 5 miles and around a quarter were less than 2 miles.[7] An integrated transport system, combining mass transport systems and cycling/walking that work in tandem with each other, will increase the inclusivity of both sustainable modes as a transport option while also increasing their scale and encouraging a larger modal shift away from cars. This practice could also provide benefits by supporting better integration between city and rural transport systems.

The Netherlands demonstrates the benefit of this multi-modal approach. 35% of all train journeys in the Netherlands start with a bicycle trip and 12% of journeys end with a trip on the cycle path

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[4] Campaign for Better Transport. (2018) *The future of rural bus services in the UK.* Campaign for Better Transport. [https://bettertransport.org.uk/sites/default/files/research-files/The-Future-of-Rural-Bus-Services.pdf].

[5] Department for Transport. (2019) *Walking and Cycling Statistics, England: 2019*. Department for Transport. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/906698/walking-and-cycling-statistics-england-2019.pdf].

[6] ADEPT. (2021) *Policy Challenge Paper: Transport Decarbonisation Plan September 2021.* ADEPT. [https://adeptnet.org.uk/system/files/documents/ADEPT%20policy%20challenge%20paper_Transport%20Decarbonisation%20Plan_Sept%202021_final.pdf].

[7] Department for Transport. (2021) *Gear Change: One Year On.* Department for Transport. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1007815/gear-change-one-year-on.pdf].

directly meant for connection to railways.[8] This integrated cycling and rail transit system in the Netherlands has been made possible through the installation of continuous cycling infrastructure. The provision of cycling services at train stations also helps integration, such as high-quality secure cycle parking facilities at stations, the creation of bike onboard facilities and regulations, and behaviour change interventions such as education and cycle hire schemes.

The Commission could benefit from researching best practice in the Netherlands, (as well as Germany and Denmark) and including the significant contribution that integration of Active Travel with public transport networks can make to decarbonisation and healthy living. The benefits of the successful integration of cycling and Mass Transit are expressed well by Kager and Harms (2017).[9]

"Improved integration of cycling and transit has the potential to overcome the fundamental limitations of each mode by combining their opposite strengths of flexibility and action radius. The benefits of such integration potentially extend beyond user benefits and the trip level."

Challenge 9

There are several significant barriers to interurban transport, specifically public transport services. The cost of travel can exclude large cross-sections of society.[10, 11, 12] As patronage has declined bus operators have adopted a "mop up" approach with indirect routes linking as many settlements as possible, thereby continuing to provide lifeline connectivity at the expense of deterring those with faster, direct alternatives. On rail too, the introduction of additional station calls into express services has a negative impact on patronage as rail's speed advantage over car reduces. It is encouraging to see that the Commission will consider costs and savings across different social groups, particularly if this extends to both urban and non-urban settings.

Importance of non-urban transport infrastructure

In the Assessment, it is evident that the Commission mistakenly sees non-urban and urban settings as two separate entities, and as a result gives minimal consideration to 'non-urban' transport infrastructure needs apart from those linking major settlements. Any publication of a strategic multimodal transport plan should ensure that there are suitable, top-down mechanisms (including significant levels of investment), in place to improve transport provision for non-urban communities situated between urban areas. This would help to address provision disparity within non-urban settings and could reduce human capital flight if people are able to live rurally yet work centrally.

[8] Sustrans. (2011) *Cycling in the city regions Delivering a step change.* Urban Transport Group. [https://www.urbantransportgroup.org/system/files/110411_Cycling_in_the_city_regions_Sustrans_PTEG_report_final.pdf].

[9] Harms, L. and Kager, R. (2017) *Synergies from Improved Cycling-Transit Integration: Towards an integrated urban mobility system.* International Transport Discussion Papers.

[10] Social Exclusion Unit. (2003) *Making the connections: Final report on transport and social exclusion*. International Labour Organisation. [www.ilo.org/emppolicy/pubs/WCMS_ASIST_8210/lang--en/index.htm].

[11] Bourn, R. (2013) *No entry! Transport barriers facing young people*. Intergenerational Foundation & Campaign for Better Transport. [www.if.org.uk/research-posts/no-entrytransport-barriers-facing-young-people-government-policy-hits-young-hardest/].

[12] Crisp, R., Ferrari, E., Gore, T., Green, S., McCarthy, L., Reeve K., Stevens, M., & Rae, A. (2018). *Tackling Transport-related barriers to employment in low-income neighbourhoods*. Joseph Rowntree Foundation. [www.jrf.org.uk/report/tackling-transport-related-barriers-employment-low-income-neighbourhoods]

Investment in interurban road and rail is noted by the Commission as supporting regional growth; investment in bus and cycling infrastructure can also support this growth whilst contributing further to the Government's net zero and levelling up ambitions, particularly if combined with the promotion and possibly the subsidisation of electric buses and cycles.

Shared mobility schemes could offer significant benefits both in urban and inter-urban situations as well as addressing the three challenges. It should be part of the overall strategy for investment.

Overemphasis on EVs and new technologies

It is positive that reaching net zero has been listed as a key strategic theme, however, the Commission, in common with current Government policy, places too much emphasis on electric vehicles (EVs) as a way of achieving transport decarbonisation. The way we plan for places and people has to be a key consideration when seeking to achieve net zero: it can help avoid the need to travel as well as ensure people can use sustainable transport modes.

Plug-in Hybrid Vehicles (PHEV) have been found to only be slightly better than traditional fossil fuel vehicles in terms of emission outputs[13] and even Battery Electric Vehicles (BEV) will not be zero carbon vehicles until:

a) The electricity which fuels them is net zero. There is debate over when this date may be exactly, but even the most generous estimates recognise it's unlikely to be in the next 10 years
b) The problem of particulates emitted from brakes and tyres is solved by the discovery of alternative non-polluting materials or technologies for their manufacture
c) Embedded carbon tied to the manufacture of EVs is eliminated. These emissions would be more excusable if they were replacing the existing fleet, but this is not always the case. The carbon involved in manufacturing will decrease as we decarbonise the process

Near term carbon reductions must instead take priority. And electrification of the vehicle fleet is not risk-free. Low operating costs may incentivise EV owners to drive more, unless some form of road pricing is introduced. We need to question who owns EVs and whether the benefits of reduced costs are distributed fairly. Equality needs to be considered, so that lack of access to off-street parking and charging facilities, for example, does not exclude certain parts of society.

Instead, greater weight and infrastructure investment should be afforded to active and sustainable interurban modes to help reach net zero. E-bikes and the necessary infrastructure to encourage their purchase should be part of this. A recent Danish study found that new e-bike owners increased their bicycle use from 2.1 kilometres to 9.2 kilometres a day on average, making 49% of all journeys by e-bike compared to 17% before their purchase. This suggests they could also play a huge part in supporting interurban journeys.[14]

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[13] Transport and Environment. (2020) *UK briefing: The plug-in hybrid con*. Transport and Environment. [www.transportenvironment.org/discover/uk-briefing-plug-hybrid-con/].

[14] Beate Sundfor, H. and Fyhri, A. (2020) *Do people who buy e-bikes cycle more?* Transportation Research Part D: Transport and Environment. [https://www.sciencedirect.com/science/article/pii/S136192092030609X#s0060].

Whilst the adoption of new digital technologies can improve journey time and quality, as seen with the introduction of metrobus iPoints in the greater Bristol area,[15] it is surprising that the report does not acknowledge the problem that digital innovation can exclude certain social groups from using transport. The Commission must fully consider how new technologies should be equitable and increase access to interurban services for all social groups, in particular older and younger people as well as those on low incomes.

The Organisation for Economic Co-operation and Development (OECD) and the International Transport Forum's (ITF) Innovations for Better Rural Mobility research report [16] recommends the introduction of a rural-centric sustainable accessibility policy. This should be considered by the Commission.

Question 2:

Decentralisation

TPS would like to see a shift in tax and spend powers from central to local administration to address productivity and levelling-up issues. This applies particularly for the two transport-related Challenges 8 and 9. These necessary changes, although controversial and likely to be resisted by the Treasury, should begin with encouraging Local Authorities to make greater use of existing legislation in hypothecation with or without ring-fencing conditions. There are good examples of this within the transport policy area including London's congestion charge and the Nottingham workplace parking/tram financing regime.[17]

Experience has shown that the best outcomes can be achieved when transport is planned at the local level consistently over a long period of time and with a degree of certainty over availability of budget. The Commission should learn from the plans in Leicester, currently embarking on a workplace parking scheme similar to Nottingham, for example by a carefully designed monitoring exercise.[18]

Motor taxes

The Commission cannot ignore the challenge of falling fuel duty income as a result of continued electrification of the vehicle fleet and the downstream impacts on funding available for infrastructure spend. We recommend a comprehensive review of pay-as-you-go road use, current tolling regimes and parking pricing. This should be undertaken to inform national and local level policy and to ensure pricing strategies are encouraging rather than discouraging the switch to electric vehicles and sustainable modes, bearing in mind that EVs are not a silver bullet. The RAC foundation and Institute of Fiscal Studies conducted research into the reformation of the current system of motor taxation which concluded that a per mile charge was a sensible and credible alternative.[19]

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[15] Travelwest. (2021) *Metrobus: A modern public transport system for the greater Bristol area.* Travelwest. [travelwest.info/metrobus].

[16] Organisation for Economic Co-operation and Development / International Transport Forum. (2021) *Innovations for better rural mobility*. Organisation for Economic Co-operation and Development / International Transport Forum. [www.itf-oecd.org/innovations-better-rural-mobility].

[17] Centre for Cities. (2017) *Reviewing the funding and finance options available to city and combined authorities.*

[18] Browne, D. (2022) *Leicester aims for workplace parking levy by 2023*. Highways Magazine. [https://www.highwaysmagazine.co.uk/Leicester-aims-for-workplace-parking-levy-by-2023/9459].

[19] Raccuga, G. (2017) *Miles Better: A distance-based charge to replace Fuel Duty and VED, collected by insurers.*

The appraisal system

We have talked about the disparities in transport funding in detail previously,[20] which is best highlighted by the £27 billion committed to road transport in the Third Road Investment Strategy. This funding is in competition with funding for greener forms of transport like the Government's ambitious National Bus Strategy[21] and Mass Transit systems which will improve productivity, among other things, and reduce congestion. Interurban transport will likely be improved via the Road Investment Strategy, but a greater emphasis should be put on a multi modal system as Challenge 9 rightly highlights.

Part of the reason for the disparity in funding is the make up of the transport appraisal and business case system. This is again something TPS has covered in further detail before.[22] Some of the improvements we would like to see to the appraisal system include:

- The way travel time savings are valued
- A pass/fail grade linked to CO2 emissions
- Greater understanding and representation of behavioural change
- Introduction of the tonne years CO2 equivalent metric[23]

We also believe that the way in which project appraisal deals with options based on revenue expenditure rather than capital and schemes involving both, needs to be better considered: this may require revisions to guidance or to appraisal techniques and tools, quite likely a mixture of both. This is particularly apposite for bus network additions or revisions and minor highway and traffic management schemes to facilitate improvements in bus speeds and reliability.

Question 5

Local Transport Plans

The Department for Transport's (DfT) incoming Local Transport Plan (LTP) guidance can contribute to solving the Commission's transport-related challenges set out in the Baseline Report if the two are developed in partnership rather than in silo. This will be the first time in almost a decade that Local Authorities will be required to produce an LTP, therefore it is crucial that narratives surrounding transport infrastructure are, at the very least, aligned and consistent with the NIC's three challenges and Government objectives. These conversations should start now. TPS would strongly suggest that they should be against a background of the desirability of planning and funding transport across areas that may well be larger than many current local authorities. The Government needs to review and simplify strategic spatial and transport planning and funding responsibilities. Currently there are significant grey areas between Sub-national Transport Bodies, Local Authorities (even in Combined Authority areas) and LEPs.

Car mileage reduction and road pricing

Policy Exchange. [https://policyexchange.org.uk/wp-content/uploads/2017/07/Gergely-Raccuja-Miles-Better-Revised-Submission.pdf].

[20] Transport Planning Society (2021) *Department for Transport: Decarbonising Transport – A Better, Greener Britain.* Transport Planning Society. [https://tps.org.uk/public/downloads/egbH-/TPS-Response-to-TDP-and-COP.pdf].

[21] Department for Transport (2021) *Bus Back Better (also referred to as the National Bus Strategy)* [https://www.gov.uk/government/publications/bus-back-better]

[22] Ibid.,

[23] Ibid.,

To reach net zero, we need to reduce car mileage by 20% at the minimum.[24] However, there is currently no national requirement or guidance to enable transport authorities to do so. The commission should look to address this. As we know from past examples there is likely to be consumer resistance to any additional costs to motoring, but this should be viewed as a barrier to overcome (through effective PR and engagement campaigns) rather than a reason not to pursue changes to pricing.

TPS have previously explored the benefits of re-introducing the fuel duty escalator to immediately reduce carbon from road travel that is still heavily reliant on petrol.[25] It was estimated that the discontinuation of the fuel duty escalator has cost the Treasury £50 billion, which could have been spent elsewhere improving interurban multimodal transport, as per challenge nine, or urban mass transit systems as per challenge 8.[26]

On a wider scale, serious thought should be put into a logical incentive and disincentive system for decarbonising road transport. Some form of motoring tax is the surest way to ensure emissions from private vehicles don't continue to rise.[27]

Levelling up and devolution

The existing governance context around transport and movement is disjointed and variable across the nation. Responsibility for transport is so fragmented that no authority has managed to create coherence in transport infrastructure, given the public/private split in particular. In addition, the DfT retains a very tight degree of control over most matters, whereas in other OECD countries there is devolution down to regional or lower tier municipalities to determine things like fares, service patterns, investment decisions, revenue raising and route choices. TPS favours a regional approach based on the hinterlands of significant conurbations or free-standing cities. Although there is no definitive way of drawing such boundaries, a useful approach was adopted in work for the Welsh Spatial Plan in the early 2000's where the concept of fuzzy boundaries was used to acknowledge that, for example, the logical area over which to administer education need not be the same as the logical area for transport or digital services.

The UK's rigid management of the transport sector is inflexible, has struggled to cope with external shocks such as the Covid-19 pandemic and can fail to offer communities the comprehensive and integrated service they want for their areas. This is why the levelling up agenda should be accompanied by a devolution of powers.

The government's current commitment to the policy of levelling up presents an opportunity and is likely to mean additional devolution is offered to sub-regions with the probability of having more mayors and governors for urban but also non-urban areas. The more funding that is available through mechanisms like the Levelling Up Fund, the greater chance city regions will have in developing the type of transport systems that support productivity while aiding net zero targets.

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[24] Anable, J. Cairns, S. Goodman, A. Goodwin, P. Hiblin, P. Hopkinson, L. Kirkbride, A. Newson, C. Sloman, L. (2021) *The last chance saloon: we need to cut car mileage by at least 20%.* Transport for Quality of Life. [http://www.transportforqualityoflife.com/u/files/211214%20The%20last%20chance%20saloon%20to%20cut%20car%20mileage.pdf].

[25] Transport Planning Society (2021) *Department for Transport: Decarbonising Transport - A Better, Greener Britain.*

[26] Government Business (2020) *Ending fuel duty freeze could treble NHS budget.* Government Business. [https://governmentbusiness.co.uk/news/10032020/ending-fuel-duty-freeze-could-treble-nhs-budget].

[27] Transport Planning Society (2021) *Department for Transport: Decarbonising Transport - A Better, Greener Britain.*

It will similarly give regions the capacity to substantially invest in the multi modal interurban transport options raised in Challenge 9. There will be barriers, not least the political challenges involved in persuading the national government to relinquish central control. But ultimately the current focus on the levelling up agenda is a cause for optimism.

The inability for transport authorities to control or predict their funding settlements beyond a single year, due to a reluctance for long term funding arrangements, coupled with principally two-tier authority areas providing a separation of planning and transport functions between competing bodies, does not produce coherently planned transport networks and services. On top of this, the lack of a national strategy for planning and transport in England has generated significant additional downwards pressure on Local Authorities to fill the gap with plans and strategies to both provide local detail but also cover regional/national interests. This gap has added significant delay to major, nationally important transport schemes being progressed through to the development consent order stage, with the nationally significant infrastructure project regime already highlighted as requiring change.[28] Additionally, with the private control of bus and rail services, as well as the two national transport delivery bodies, even with the highest level of collaboration, preparing and delivering a coherent transport plan can be extremely difficult.

The consequences of Covid-19

The Covid-19 pandemic highlighted the need for industry wide bus and rail fiscal support through 2020 and 2021, to protect baseline service provision. It has illustrated the case for a new approach. With rail franchising on its way out, the rail industry should look to the formal introduction of a concession model nationwide, similar to TfL's, managed by local transport authorities.

The roll out of a national smart card system (based on the national ITSO protocols and including implementation on contactless bank and identity cards), reform of the ticketing regime for rail fares and introduction of a UK-wide recommended structure for local bus and tram/Metro fares would be immensely beneficial. Reforms should reflect the changed travel market; for example, towards more flexible commuting patterns that are emerging, and the observed increase in leisure activity since the pandemic.[29] Bus, rail and light rail encounter unnecessary barriers to cooperation, hindering interchange and multimodal travel. The lack of appetite amongst transport authorities for enhanced bus partnerships without threat from government, and the long decline in bus patronage[30] stimulated by the deregulated environment[31] in comparison to the London model, presses the need for greater local control and direction over the provision of services. There is also a significant capability and capacity gap in local authorities in this field.

Question 16

It is encouraging that the report recognises the importance of demand management measures and congestion charging in order to tackle congestion in urban areas. The global evidence of demand

[28] Pincher, C. (2021) *Letter to NIPA.* Ministry of Housing, Communities and Local Government Correspondence. [https://www.nipa-uk.org/uploads/news/Letter_to_NIPA-Christopher_Pincher_MP.pdf].
[29] Fine, P. A. Friedlander, K. J. Morse, K. F. (2021) *Creativity and Leisure During COVID-19: Examining the Relationship Between Leisure Activities, Motivations, and Psychological Well-Being.* Frontiers in Psychology. [https://www.sciencedirect.com/science/article/abs/pii/S0739885914000924?via%3Dihub].
[30] Hrelja, R. McTigue, C. Monios, J. Rye, T (2021) *Partnership or franchising to improve bus services in two major English urban regions? An institutional analysis.* Transport Policy. [https://www.sciencedirect.com/science/article/pii/S0967070X21002584?via%3Dihub].
[31] Ibid.,

management's effectiveness is well documented. TPS and ICE members have previously relayed relevant evidence to the House of Commons Transport Select Committee.

Examples of best practice encompass a broad range of demand management techniques including Singapore (Electronic Road Pricing, ERP)[32], Stockholm[33]/Washington[34] (congestion charge, bus strategy and parking management), and Nottingham (Workplace Parking Levy)[35].

The role of public relations campaigns as an integral part of these schemes cannot be overstated. Demand management and road congestion schemes are almost always met with some level of opposition. It's vitally important early and frequent engagement takes place to understand and address the concerns with the proposed schemes. The benefits of demand managements schemes need to be communicated to those most affected, clearly and frequently.

Fostering a modal shift

It is so important that the implementation of congestion charges, and the expansion of congestion charge zones, are preceded by, or at least implemented concurrently with, broader improvements to the transport system. In doing this, congestion is reduced and public consensus built on charging schemes supporting mode shift away from cars. The Our Future Towns project, a Royal College of Arts initiative to which the Transport Planning Society contributed, was developed with people from across the country to reimagine how they can engage with the challenges of community place-making and transport planning. [36]

The original introduction of the London Congestion Charge was accompanied by the introduction of 300 extra buses. But public transport enhancements are only part of the story. Active Travel can also provide alternative transport options and reduce congestion. London's new east-west and north-south cycle routes are moving 46% of the people in only 30% of the road space.[37] Supporting modal switch requires:

- Improvements in Active Travel and public transport infrastructure
- Enhancements to public and shared transport services
- Behaviour change initiatives such as travel buddying schemes[38] (both for those lacking confidence or less able people) and the delivery of cycle training
- Cycle hire schemes
- Education in available transport options, particularly in schools but also for post statutory learning age groups.

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[32] Theseira, W. (2021) *Singapore's Experience with Road User Charges.* International Transport Forum. [https://www.itf-oecd.org/sites/default/files/docs/singapore-experience-road-user-charges.pdf].
[33] Jablonska, J. (2019) *How Stockholm broke its gridlock with congestion pricing*. IBM. [https://www.ibm.com/blogs/industries/stockholm-congestion-pricing-iot-analytics-government/].
[34] Washington State Transport Commission. (2021) Low-income toll program study for I-405 and SR 167 express toll lanes. Washington State Transport Commission. [wstc.wa.gov/wp-content/uploads/2021/08/2021-WSTC-Tolling-Equity-Report.pdf].
[35] Centre for Cities. (2017) *Reviewing the funding and finance options available to city and combined authorities. Centre for Cities.*
[36] Royal College of Arts (2020) *Our Future Towns: Community Place Making and Transport Planning.* Royal College of Art. *[*https://rca-media2.rca.ac.uk/documents/RCA_OFT_v1_hnNddRQ.pdf].
[37] Department for Transport. (2019) *Walking and Cycling Statistics, England: 2019.* Department for Transport.
[38] My Life My Choice. (2020), *Travel Buddy Scheme* [https://www.mylifemychoice.org.uk/pages/14-travel-buddy]

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4. Ipsos Mori. (2021) *UK public highly supportive of COP26 goals but few expect the government to take the steps needed.* Ipsos Mori.
5. Department for Transport. (2019) *Walking and Cycling Statistics, England: 2019*. Department for Transport.
6. Campaign for Better Transport. (2018) *The future of rural bus services in the UK*. Campaign for Better Transport.
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9. Department for Transport. (2021) *Gear Change: One Year On.* Department for Transport.
10. Sustrans. (2011) *Cycling in the city regions Delivering a step change*. Urban Transport Group.
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