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NEW DRAFT NATIONAL TRANSPORT STRATEGY: A RESPONSE TO SCOTTISH GOVERNMENT

Summary

The draft National Transport Strategy appears to follow a 'business as usual approach' to transport planning that fails to adequately acknowledge, and respond to, the fundamental changes that are currently being observed across the sector. Chief among these are a marked shift towards increasingly tailored journey planning and the rising popularity of more responsive and elastic providers, facilitated by the thriving mobile app economy and disrupters such as Uber.

In order to build a truly flexible and consolidated transport system, it must be data-driven, capable of collecting and disseminating information across platforms and providers. Before the operational stage, it will also be important to conduct further research into the actual transport needs of users and how these may differ in the future.

Industry and the voluntary sector will be key players in co-delivering elements of the draft National Transport Strategy, given the breadth of what Scottish Government is seeking to accomplish. Both possess skills and knowledge that will be imperative to the formulation of inventive and practicable solutions to transport problems. In the case of the voluntary sector, voluntary organisations already have established relationships with the communities they serve. The draft Strategy can take advantage of these existing channels of communication to better understand and involve a broader range of stakeholders in designing the transport system.

The links between transport and adverse impacts on human health in terms of reduced air quality and increased noise exposure deserve greater recognition, with concrete remediating actions identified.

It is not clear the present system of transport governance is equipped to support the integrated aims of the draft Strategy. That being so, it may be necessary to devise a more collaborative governance system, one in which national level oversight and community and regional input meet in the middle. It will also be important for the performance of any governing body to be transparently assessed and communicated, with clear procedures in place to remedy any shortcomings.

In addition to taxation, there could be scope to introduce more creative sources of funding, such as 'pay as you go' road usage schemes, added value services, or land value capture.

Although a strategic vision remains necessary to guide the general direction of transport policy development, it should not preclude the implementation of cost effective 'quick wins' that could lead to measurable positive impacts in the short term. These centre on improving affordability, efficiency, reliability, accessibility and digital connectivity, all of which could be facilitated by the opening of transport data.

By attempting to tackle numerous policy challenges simultaneously, the Strategy undermines its own aspirations by misdirecting its attention and resources to problems that are ultimately not within its remit to address. To avoid this, it would be helpful to clearly situate the draft National Transport Strategy within its wider policy context, such as the newly passed Transport (Scotland) Bill and the Climate Change Plan. This would clarify the ways in which these policies will influence and complement one another as well as definitively establish where responsibility lies for realising certain objectives (such as improving urban air quality).

Introduction

1 The Royal Society of Edinburgh (RSE), Scotland's National Academy, welcomes the opportunity to respond to the Scottish Government's consultation on its new draft National Transport Strategy. With Scotland committed to increasingly ambitious action against climate change and with the transport sector in the midst of another technological revolution, the time is right to re-evaluate Scotland's transport system to ensure it is fit to meet these challenges and deliver high quality, modern services. A working group comprising a diverse range of expertise and experience in transport, public policy, technological innovation, environmental management, and other related disciplines prepared this response. The response sets out our overarching comments before addressing the consultation questions. We would be pleased to meet with Scottish Government to discuss this response should they consider this helpful.

General Points

2 The draft National Transport Strategy appears to follow a 'business as usual approach' to transport planning that fails to adequately acknowledge, and respond to, the fundamental changes that are currently being observed across the sector. The transport sector is undergoing significant transformations and the pace of change is accelerating. In particular, users are coming to demand greater 'personalisation' of services, driven in large part by the proliferation of the 'app economy'. Disruptors such as Uber have capitalised on this change in consumer expectations by viding flexible services capable of meeting the unique needs of users in real time. Perhaps not surprisingly, governments have struggled to clarify their role within this rapidly changing context. Despite these challenges, it is imperative that a new transport strategy attempts to respond to this paradigm shift and the RSE is not convinced that the draft in its current form sufficiently does so.

A Data-Driven Approach

3 Enhancing data interoperability is crucial to the delivery of adaptable, modern transport services and there exist several compelling examples of how mandating open data has optimised transport provision and increased consumer uptake and satisfaction. This can realistically only be administered by government and so any delay in doing so will impede innovation across the entire sector.

4 An example of this is the Finnish Government's Act on Transport Services, which came into effect in 2018. It requires any entity wishing to enter the Finnish mobility sector to open up their Application Programming Interface (API) and share their data on timetables, routes, ticket prices and real-time locations with other public and private providers. It also collapsed the country's complicated single mode legislation into one unified code. Through these provisions, Finland has fostered the market conditions necessary for novel and smart transport solutions to flourish and improved operations at every point in the system.[1, 2]

5 Similarly, in 2011, more than 80 live data sets were made available to over 13,000 developers through a free harmonised API system run by Transport for London (TfL). Research by TfL and Deloitte showed that the provision of this open transport data has led to the creation of more than 600 apps which are used by 42% of Londoners to plan more integrated, efficient journeys. In turn, this has spurred further technological innovation and economic growth, contributing an estimated £130m to London's economy annually.[3]

6 Scottish Government should look to proactively identify and exploit opportunities for transformation, and better position itself to become an agent of change in the transport sector rather than a late adopter, when opportunities to influence the system become more limited.

The Need for Innovation

7 The draft Strategy demonstrates a lack of awareness of innovation, with little mention of prominent technological and operational developments that may rapidly come to define the sector. For example, car, bike and even scooter-sharing schemes have democratised access to transport and will favour the continued expansion of Mobility as a Service (MaaS).[4] However, the draft Strategy still seems largely predicated on a more traditional understanding of transport needs and provision, with private car ownership a key feature.

1 ERTICO (2017) Finland's Transport Code Focuses on Digitilisation of Transport [online] Available at: https://erticonetwork.com/finlands-transport-code-focuses-digitalisation-transport/ (accessed 09/10/2019)

2 MaaS Alliance (undated) New Legislation Adopted in Finland to Enable MaaS [online] Available at: https://maas-alliance.eu/new-legislation-adopted-finland-enable-maas/ (accessed 09/10/2019)

3 Transport for London (2017) TfL's free open data boosts London's economy [online] Available at: https://tfl.gov.uk/info-for/media/press-releases/2017/october/tfl-s-free-open-data-boosts-london-s-economy (accessed 09/10/2019)

4 Arthur D. Little (2018) *The Future of Mobility* 3.0 [online] Available at: https://www.adlittle.com/en/insights/viewpoints/future-mobility-30 (accessed 16/10/2019)

8 Government needs to engender confidence within industry that innovation will be properly supported, and account for and understand the reality that some projects and ideas will fail. In practice, this will necessarily involve investing in experimentation and test beds to determine which technologies can be adapted to the Scottish context. For example, the Dutch government recently unveiled seven regional pilot projects – co-financed by government, the regions and industry – to explore the viability of MaaS, including delivery and governance.[5] Building a relationship of trust between Scottish Government and industry will be crucial to the delivery of the National Transport Strategy, given that industry possesses the skills and market expertise required to navigate the current transport environment.

Climate Change and the Environment

9 Although none of the consultation questions prompted respondents to explicitly consider climate change and the environment, we expect that the Strategy will be compatible with wider national environmental priorities. This includes those outlined by the Land Use Strategy[6] and Scottish Biodiversity Strategy[7] in addition to more obvious connections to climate change. The latter also becomes particularly pressing in light of Scottish Government's response to the 'climate emergency' that has prompted it to instate more stringent emissions reduction targets. It will therefore be important for the National Transport Strategy to embed climatic considerations into every aspect of its design and delivery. For example, when it comes to large scale infrastructure projects, there needs to be a strong presumption against developing carbon intensive path dependencies that are increasingly at odds with Scotland's climate change commitments.

Human Health

10 Human-generated air pollution, particularly that arising from transport, is the single greatest environmental threat to human life in the UK[8], with some evidence attributing between 28,000 and 36,000 premature deaths per year to poor air quality.[9] Currently, there are 38 Air Quality Management Areas designated across urban areas in Scotland where air quality objectives are not being met. Many of these coincide with areas of high deprivation. Despite this, improvements in air quality in Scottish cities have been marginal to date[10] and the draft Strategy does not appear to recognise this enduring public health issue nor offer any clear solutions. In addition to air quality, there is an increasing awareness of the negative physical and mental health impacts associated with excessive noise exposure. The World Health Organization has labeled noise an 'underestimated threat' to human health and wellbeing, with the potential to lead to sleep disturbance, cardiovascular effects, poorer work and school performance, and other problems.[11] As with air pollution, traffic noise impacts tend to be disproportionately felt in urban areas of deprivation. While it could be that these issues are inherent to the priority of *'Improves our health and wellbeing'*, it would be reassuring to see them receive more explicit mention to ensure they are appropriately considered and acceptably mitigated, including through better signposting to the legislation and policy commitments that will carry out these actions.

Funding

11 The draft Strategy presents very little detail on how proposals are to be funded. It similarly contains little information on how low-income individuals will be supported in using transport to access better opportunities, given that sustainable and inclusive economic growth is a central pillar of Scotland's national policy framework.

5 MaaS Alliance (undated) Market Parties in the Netherlands Keen to Participate in Mobility as a Service [online] Available at: https://maas-alliance.eu/market-parties-in-the-netherlands-keen-on-participation-in-mobility-as-a-service/ (accessed 09/10/2019)

6 Scottish Government (2016) *Getting The Best From Our Land: A Land Use Strategy for Scotland* 2016-2021 [online] Available at: https://www.gov.scot/publications/getting-best-land-land-use-strategy-scotland-2016-2021/ (accessed 18/10/2019)

7 Scottish Government (undated) Biodiversity [online] Available at: https://www.gov.scot/policies/biodiversity/scottish-biodiversity-strategy/ (accessed 18/10/2019)

8 Public Health England (2019) Review of interventions to improve outdoor air quality and public health [online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/795185/Review_of_interventions_to_improve_air_quality.pdf (accessed 16/10/2019)

9 Committee on the Medical Effects of Air Pollutants (2018) Associations of long-term average concentrations of nitrogen dioxide with mortality (2018): COMEAP summary [online] Available at: https://www.gov.uk/government/publications/nitrogen-dioxide-effects-on-mortality/associations-of-long-term-average-concentrations-of-nitrogen-dioxide-with-mortality-2018-comeap-summary (accessed 16/10/2019)

10 *The Scotsman* (2019) Air quality on Scotland's most polluted street grew worse in the past year [online] Available at: https://www.scotsman.com/news/environment/air-quality-on-scotland-s-most-polluted-street-grew-worse-in-the-past-year-1-4863295 (accessed 16/10/2019)

11 World Health Organisation (undated) Noise – Data and statistics [online] Available at: http://www.euro.who.int/en/health-topics/environment-and-health/noise/data-and-statistics (accessed 16/10/2019)

12 As well as considering a traditional model of funding based on taxation, more innovative solutions may be open to Scottish Government. Trends suggest that a 'pay as you go' road usage model is becoming more prevalent and government may wish to consider how such schemes could be utilised to fund projects. In addition, there exist many ways in which value-added services, such as loyalty programmes offering discounts on travel or other goods and services, could be combined with existing transport services to build systems which are self-sustaining and more attractive to users. Land value capture, wherein the additional land value arising from proximity to transport services is reinvested back into these services, could be another method of delivering aspects of the Strategy.

Role of the Voluntary Sector

13 The voluntary sector has historically played an important role in identifying and responding to local transport needs. In many remote and rural locations, voluntarily-delivered community transport has emerged as a vital resource for residents to access lifeline services and opportunities for social interaction, particularly the elderly and disabled. Funding these existing initiatives would probably prove less costly than designing new interventions. Government should strive towards effective collaborations that also respect the agency and expertise of the voluntary sector. Further, the voluntary sector is inherently well-positioned to facilitate public engagement with the communities they serve, empowering them to communicate their unique transport needs to a wider audience.

Land Use

14 The relationship between transport and land use is fundamental yet it continues to receive inadequate consideration at the strategic level, particularly in relation to housing. The way in which communities are designed and situated has a powerful influence on the subsequent provision of transport services, with the reverse also being true. Effective integration between land use and transport planning is the cornerstone of building sustainable communities and we would therefore like to see greater evidence of this in the finalised Strategy.

Response to Questions

Section A: The Vision and Outcomes Framework

1 Is the Vision that is set out for the National Transport Strategy the right Vision for transport policy over the next 20 years?

Response:

15 As it is presently written, few would disagree with the principles outlined by the Vision. However, it should perhaps be more nuanced to reflect the multitude of stakeholders the National Transport Strategy is intended to serve. These include consumers, businesses and transport providers. The needs of these respective groups can differ considerably and so a uniform vision is unlikely to target them all.

16 Although a strategic vision remains necessary to guide the general direction of transport policy development, it should not preclude the implementation of cost effective 'quick wins' that could lead to measurable positive impacts in the short term. These include ensuring cheap, reliable transport between major cities with fast internet connection throughout; achieving interoperability of data (as discussed above); and allowing cars with drivers and multiple adult passengers to use bus lanes in order to ease congestion as well as promote carpooling. Additionally, fundamental service improvements could be enacted fairly rapidly and result in immediate benefits in terms of reliability, affordability and accessibility.

2 A) Are the Priorities and Outcomes that the Strategy is trying to achieve the right Priorities and Outcomes for transport policy over the next 20 years?

B) Are some of these Priorities and Outcomes more important than others or are they equally important?

3 Are the Challenges the Strategy highlights in Chapter 3 the key Challenges for transport, or are there others the Strategy should focus on?

Response:

17 According to the consultation document, the current vision is underpinned by four key priorities: promoting equality, taking climate action, helping our economy prosper, and improving our health and wellbeing. Although there exist many obvious interdependencies between transport and areas such as health and equalities, it does not seem logical to combine these from the outset and indeed, a National Transport Strategy that seeks to do so runs the risk of being too broad to lead to effective policy implementation. By attempting to tackle numerous policy challenges simultaneously, the draft Strategy undermines its own aspirations by misdirecting its attention and resources to problems that are ultimately not within its remit to address.

18 Rather than pursuing cross-sectoral benefits in tandem with transport aims, the National Transport Strategy should instead concentrate on objectives relevant to building an efficient and high-functioning transport system. Once such a system is proposed, it can then be checked against outcomes across related sectors. It should also clearly identify how other legislation and policy commitments will support its aims and vice versa.

Section B: The Policies to Deliver the NTS

4 A) Are these the right policies to deliver Priorities and Outcomes of the National Transport Strategy?

B) Are some of these policies more important than others or are they equally important?

Response:

19 The draft Strategy does not adequately describe how it will be implemented. A delivery plan will be published in due course, in which more detail will be provided. However, in the interests of promoting public involvement in the policy development process, it would be prudent to give stakeholders early sight of the kinds of specific actions that may be taken. This is admittedly a difficult exercise, given considerable uncertainty regarding how the transport sector may evolve into the future.

20 In order to address this, the draft National Transport Strategy should avoid being too prescriptive and instead present a suite of possible policy options that reflect a multitude of potential trajectories. For example, the Strategy would respond very differently according to whether autonomous vehicles gain a greater market share or remain a relatively niche technology. Such flexibility would allow the Strategy to account for different eventualities, ensuring it is agile and capable of reacting to an increasingly complex and dynamic transport landscape. However, in order to inform decision-making, it will also be important to capture the compromises that will inevitably have to be made in pursuing one course of action over another. The RSE's recently published Inquiry into 'Scotland's Energy Future'[12] took such an approach, framing the discussion of energy policy on the basis of such trade-offs, weighing the advantages of each approach with its associated risks to illustrate the full spectrum of outcomes that could be possible.

Section C: Transport governance – democracy, decision-making and delivery

5 A) Are there specific decisions about transport in Scotland that are best taken at the national level (e.g. by Transport Scotland or the Scottish Government), at a regional level (e.g. by Regional Transport Partnerships,) or at a local level (e.g. by Local Authorities)?

B) Should local communities be involved in making decisions about transport in Scotland? If so, how should they be involved, and on which specific issues should they be involved in making decisions on?

Response:

21 Historically, transport governance in Scotland has been segmented both spatially and modally. However, it is unlikely this management structure can be reconciled with the delivery of a national strategy. For a truly integrated National Transport Strategy to succeed, a similarly integrated governance system is required.

22 As previous examples have illustrated, building a truly smart and dynamic transport sector is contingent on effective data sharing and strong partnerships. These are difficult to achieve if fundamental partners are confined to theoretical and operational silos. Although the introduction of Regional Transport Partnerships was an encouraging step towards greater collaboration among subnational authorities, the extent of their influence remains to be seen. Specifically, concerns were raised regarding how these groups are held accountable and whether current budget allocations are sufficient to allow them to carry out their remit. There does need to be some level of professional and authoritative national oversight to ensure policies are effectively coordinated and that industry actions are regulated. There also needs to be a transparent and rigorous system of accountability to guarantee policies are carried out according to plan and producing their intended impact. This may take the form of a parliamentary report that is regularly prepared to detail progress made and identify any remedial actions required

12 RSE (2019) RSE Inquiry – Scotland's Energy Future [online]
Available at: http://www.rse.org.uk/wp-content/uploads/2019/06/Energy-Report-for-Web-2.pdf (accessed 17/10/2019)

23 Given the variation in transport needs across Scotland and the commitment of the Scottish Government to empowering communities and individuals in the process of service design,[13] the Strategy also needs to have a clear view on how its implementation will be differentiated across the country.

24 Local communities should be involved in making decisions about transport in Scotland. Although there is mention of Transport Citizens' Panels, it is unclear how these would operate in practice. As previously stated, Scottish Government has voiced its commitment to empowering communities and individuals to become more directly involved in decision making and various mechanisms exist to facilitate this engagement. At a high level, the newly established Citizens' Assembly of Scotland could prove to be a powerful tool in ensuring strategic decision making is informed by independent and inclusive public debate.[14] Similarly, Citizens' Juries and public workshops can make sub-regional or local transport planning a more participatory process. More experimental approaches could include using open-world video games such as Minecraft to facilitate intergenerational service design.[15]

Section D: The Strategy as a whole

6 Does the National Transport Strategy address the needs of transport users across Scotland, including citizens and businesses located in different parts of the country?

Response:

25 The draft Strategy appears to be founded on a relatively superficial understanding of transport needs in Scotland, one which assumes that the way in which people currently make use of transport services is in direct correlation with their transport needs. Further, the prevailing assumption is that these needs will progress in a linear fashion as a function of factors such as demographics and economic growth (i.e. 'predict and provide'). In reality, transport provision has generally followed a top-down approach and users have adapted their behaviours accordingly to get the best use out of the system which exists, with varying degrees of success. As previous examples illustrate, such an approach becomes increasingly outdated in an era of rapid shifts towards a user-driven market.

26 The draft Strategy does present some compelling evidence on how the transport needs of certain groups differ, such as those of different genders. This analysis could be deepened and extended across other groups to arrive at a more comprehensive, data-driven understanding of how individuals interact with transport services. This point also underscores the importance of iterative public engagement in building a transport system that accounts for the entirety of user experiences. This engagement must also be meaningful and solicited at a strategic stage, starting with the avenues that have already been mentioned under section C.

27 Working patterns are evolving. As digital connectivity continues to improve, remote working is not only becoming more common, but in many cases actively encouraged by employers looking to scale down estates and support a healthier workforce. Similarly, technological developments have in some instances eliminated the need to travel to access certain services. For example, individuals can now receive a medical consultation through videoconferencing and remote data collection, sparing them a potentially lengthy journey to receive the same information and tests in person. What this and related examples illustrate is that travel has often become unnecessary for the exchange of information and the Strategy should develop policies that reflect this change. This should ideally be an iterative process in which actual user needs are meaningfully assessed and paired with relevant technological solutions, including mechanisms that ensure people do not need to travel when it is unnecessary to do so. Commissioning research to identify and clearly itemise the ways in which travel needs are changing across Scotland would likely prove highly valuable in achieving this.

13 Scottish Government (undated) Community empowerment [online] Available at: https://www.gov.scot/policies/community-empowerment/ (accessed 16/10/2019)

14 Citizens' Assembly of Scotland (undated) Welcome to the Citizens' Assembly of Scotland [online] Available at: https://www.citizensassembly.scot/ (accessed 16/10/2019)

15 Apolitical (2018) Thousands of young people are using Minecraft to redesign their cities [online] Available at: https://apolitical.co/solution_article/thousands-poor-young-people-using-minecraft-redesign-cities/ (accessed 16/10/2019)

Section E: Looking ahead

7 A) What aspects of the transport system work well at the moment?

B) What practical actions would you like to see the National Transport Strategy take to encourage and promote these?

Response:

28 In recent years, WiFi provision on public transport has become less of an amenity and more of an expectation. Scottish transport operators have succeeded in equipping many routes with WiFi access, with Glasgow, Lothian and Fife bus services particularly good examples. Improving the coverage and reliability of on board WiFi will further enhance the ability of working people to use their commuting time productively. The impending introduction of a 5G network creates an added dimension, with the potential to perhaps integrate 5G towers along rail or road networks and provide added value to transport services at a comparatively low cost.

29 At an operational level, transport providers are becoming more adept at using technology to make travel more convenient, such as the widespread introduction of contactless payment infrastructure.

8 A) What aspects of the transport system do not work well at the moment?

B) What practical actions would you like to see the National Transport Strategy take to improve these?

Response:

30 Although the issue of a national smart travel card for Scotland has been debated in recent years, it is arguably less efficient to develop an entirely new back office system to support such a scheme versus adopting existing technologies that are already familiar to passengers. However, improvements could be made to ensure contactless payment mechanisms support journeys of all durations by removing minimum spends and other hindrances.

9 Chapter 6 of the Strategy sets out immediate actions the Scottish Government will take in three key areas: Increasing Accountability; Strengthening Evidence; and Managing Demand. Is there anything you would like to say about these actions?

Response:

31 The RSE considers that these actions constitute essential data gathering, without which any subsequent transport planning should not proceed. There is scope to identify more ambitious and tangible priorities, the nature of which are discussed throughout this response. More evidence regarding monitoring and evaluation should also included in the final Strategy.

Additional Information

Any enquiries about this Advice Paper should addressed to Daria Tuhtar (email: dtuhtar@therse.org.uk).

Responses are published on the RSE website (https://www.rse.org.uk/)

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