



# RTPI response to the Department for Transport call for evidence on the future of mobility

*September 2018*

## **Question 1: We have identified above the main technologies and trends that we believe will affect urban mobility in the coming decades. Are there any missing?**

1. While the call for evidence document identifies land use planning as a determinant of travel demand, the final strategy should go further in considering how trends of new development, infrastructure funding and regeneration activity could accelerate or slow the other identified mobility trends in different geographical areas.
2. In England, the government has reformed planning policy and guidance since 2012 with the aim of increasing house supply. In addition, significant investment is planned in road transport infrastructure, including £15.2bn on motorways and major roads until 2020, and £2.3bn for infrastructure to support the delivery of up to 100,000 new homes (which is again likely to focus on road access). While elements of these changes are welcome, the RTPI and other professional bodies have also expressed concern that the focus on housing supply in land use planning policy is not sufficiently integrated with transport planning. This could lead to:
  - a. more dispersed patterns of settlement growth, with new development in locations and forms which do maximise accessibility by low-carbon, clean, active and spatially efficient modes of transport<sup>1</sup>
  - b. locational choices within the stock of existing buildings, such as where the connectivity gains from road investment encourage households and businesses to relocate to more affordable lower-density areas on the periphery of towns and cities, increasing car usage, undermining urban regeneration and contributing to the further dispersal of economic activity<sup>2</sup>
3. The RTPI has published a paper which describes how these spatial trends could increase congestion and lead to a loss of agglomeration economies in urban areas, while making it very difficult to reduce greenhouse gas emissions, boost physical activity and respond

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<sup>1</sup> See pages 14-15 of the RTPI response to the consultation on the draft revised National Planning Policy Framework, available at: [rtpi.org.uk/media/2824266/RTPINPPFresponse.pdf](http://rtpi.org.uk/media/2824266/RTPINPPFresponse.pdf)

<sup>2</sup> Wenban Smith, A. 2017. *Land-use drivers of transport emissions – revisited*. Proceedings of the Institution of Civil Engineers – Transport. Available from: [doi.org/10.1680/jtran.15.00097](https://doi.org/10.1680/jtran.15.00097)



positively to the challenges of an ageing population<sup>3</sup>. Collectively, these spatial factors could have a greater impact than transport technology on the future of mobility, economic productivity and wellbeing. They also create a risk that advancements in transport technology, such as electrification and automation, could increase travel demand by making longer journeys cheaper and more convenient. This could exacerbate the negative impacts highlighted above. Solutions to this are included in the response to Q2.

4. Some of the other evidence provided in the document is open to misinterpretation due to the focus on urban mobility. For example, while paragraph 1.4 recognises that the highest population growth rate for urban areas will be in the 70+ cohort, a more significant impact on may come from the even higher levels of population growth in the 70+ cohort which are projected for small towns and rural areas<sup>4</sup>. The impact of this population growth will have a considerable impact on urban mobility, as rural residents still frequently travel to towns and cities to access employment, retail, leisure and healthcare. Rural car dependency is exacerbated by the reduction in subsidised, rural bus services, which often affects the elderly most. Furthermore, although there is growth in proportion of the 70+ cohort who travel by car compared to previous generations, the ability to drive declines with age, and future generational cohorts are expected to increase their rates of travel as they age by less than the baby boomers.<sup>5</sup> The implication of trends mentioned depends substantially on how far into the future this report aims to plan for.
5. The 'cleaner transport' trend also requires further consideration. The call for evidence states that "*the benefits of cleaner road transport include improved air quality [and] reduced greenhouse gas emissions...*" The Committee on Climate Change (CCC) have recommended that 60% of all new car sales will need to be electric vehicles (EVs) by 2030 in order to meet the legally binding carbon budgets of the 2008 Climate Change Act, while scenario modelling by the National Grid indicates this may need to rise to almost 100% by 2050.<sup>6</sup> The National Grid also suggest that the uptake of EVs could add between 6GW and 30GW to peak electricity demand, which currently stands at 60GW.<sup>7</sup> While the transition to EVs will help to reduce emissions from the transport sector and tackle localised air pollution, it will require both increased capacity and faster decarbonisation in the power sector in order to reduce net emissions. Additional emissions and pollutants will also be generated from the

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<sup>3</sup> RTPI, 2018. *Settlement Patterns, Urban Form and Sustainable Development*. Available from: [rtpi.org.uk/media/2822766/settlementpatternsurbanformsustainability.pdf](http://rtpi.org.uk/media/2822766/settlementpatternsurbanformsustainability.pdf)

<sup>4</sup> Champion, T. 2015. *What do the latest official sub-national population projections suggest for Great Britain's 63 cities?* Foresight and the Government Office for Science. Available from: [gov.uk/government/uploads/system/uploads/attachment\\_data/file/458318/gs-15-31-people-in-cities-numbers-addendum.pdf](http://gov.uk/government/uploads/system/uploads/attachment_data/file/458318/gs-15-31-people-in-cities-numbers-addendum.pdf)

<sup>5</sup> Marsden G, Dales, J, Jones, P, Seagriff, E, Spurling, N. 2018. All Change? The future of travel demand and the implications for policy and planning. *The First Report of the Commission on Travel Demand*. <http://www.urbanmovement.co.uk/thoughts/all-change-the-first-report-of-the-commission-on-travel-demand>

<sup>6</sup> Committee on Climate Change. 2017. *Meeting Carbon Budgets: Closing the policy gap*. CCC report to Parliament. Available from: [theccc.org.uk/wp-content/uploads/2017/06/2017-Report-to-Parliament-Meeting-Carbon-Budgets-Closing-the-policy-gap.pdf](http://theccc.org.uk/wp-content/uploads/2017/06/2017-Report-to-Parliament-Meeting-Carbon-Budgets-Closing-the-policy-gap.pdf)

<sup>7</sup> National Grid. 2017. *Future Energy Scenarios*. Available from: [fes.nationalgrid.com/media/1253/final-fes-2017-updated-interactive-pdf-44-amended.pdf](http://fes.nationalgrid.com/media/1253/final-fes-2017-updated-interactive-pdf-44-amended.pdf)



production of EVs, including lithium ion batteries, the installation of charging infrastructure, and the recycling and scrapping of conventional vehicles.

6. The call for evidence should also recognise noise pollution as a trend which will affect urban mobility, both in terms of the potential for mitigation from the uptake of electric vehicles, and the potential for exacerbation from the uptake of aerial mobility technologies. Missing from the context in which the trends are developing is climate change adaptation and resilience to increasingly frequent extreme weather events, which – along with cyberterrorism - create risks to both the transport and digital infrastructure that underpins future mobility technologies.
7. Finally, the trend of 'Internet Accessibility' is missing from the list. People are accessing work tasks and ever more services (including Government services) online, and shopping and socialising also often occurs remotely. This trend in some cases is reducing physical travel, whilst in other cases it is generating new trips or new trip patterns.

**Combined answers to Questions 2, 5 and 6 are set out below:**

**Question 2: We want our urban infrastructure to support these trends and deliver benefits to society. What changes are required to urban infrastructure?**

**Question 5: We are committed to a transport network that works for everyone. What role should Government play in helping ensure that future transport technologies and services are developed in an inclusive manner?**

**Question 6: How can Government ensure that future urban transport systems support people's wellbeing and flourishing, healthy communities?**

8. To mitigate the risks identified from the spatial trends described in Q1, integrated land use and transport planning should be used to steer transport technologies and trends towards the achievement of broader economic, social and environmental objectives, such as:
  - Delivering sustainable patterns of housing growth
  - Reducing congestion, pollution and greenhouse gas emissions
  - Balancing choice, supply and demand
  - Improving the efficiency of existing transport infrastructure
  - Enabling productive and sustainable economic growth
  - Driving urban regeneration and improving the quality of the built environment
  - Tackling poverty by increasing access to jobs and services in an equitable manner
  - Promoting healthy and active travel
9. A key change will be the way that we *plan, fund and deliver* urban infrastructure. Infrastructure decision-making and funding in the UK is currently highly centralised, which makes it difficult to develop integrated strategies both for different modes of transport, and between transport and the wider economic, social and environmental objectives of land use planning. A better approach is to empower strategic planning and transport authorities,



operating across functional economic geographies like the city-region, to develop integrated strategies for housing, employment and transport which can:

- Plan new development in locations which minimise the need to travel, regulate parking provision and secure links to public and active transport networks
- Integrate demand management on the transport network, for example through emissions or congestion charging zones or other forms of pricing which internalise the costs of transport
- Integrate land-use and transport planning with decision-making for other infrastructure programmes with spatial implications, such as healthcare, education, and urban regeneration<sup>8</sup>
- Increase the efficient delivery and resilience of basic utilities, such as electricity, gas, water, sewage, and telecoms, at a scale that will enable better adaptation to the effects of climate change, such as increased flooding

10. Current examples, such as the London Mayor's Transport Strategy and the Greater Manchester Transport Strategy, show how political leadership, stable funding regimes and properly-resourced strategic transport authorities are critical when it comes to transforming urban infrastructure and managing technological change in way that reconciles the conflicting interests of different users and delivers wider societal benefits. Strategic transport authorities can create the correct regulatory framework for private transport operators, shaping geographical coverage to ensure that they do not simply pick the most profitable routes.
11. The prioritisation of pedestrian and cycle infrastructure is likely to remain the most equitable, healthy, low-carbon and spatially efficient solution for many dense urban areas. Enhancing the provision of both public and active travel infrastructure will often require complementary measures to restrain demand for car use and parking in urban areas, which will need the support of government (e.g. funding and support in establishing charging zones). Over time, a planned approach will also be needed to consider the most appropriate use for road and parking spaces rendered redundant by the transition towards shared and automated mobility services.
12. Upcoming RTPI research will explore the barriers and opportunities for integrated infrastructure planning and delivery in combined authorities and county councils in England and Scotland.

### **Question 3: What evidence do you have to enhance our overview of the impacts of these trends on cities and their use of urban space? Are any impacts missing?**

13. The answer to Q1 described the importance of transport and land use planning in shaping how trends of housing development, infrastructure delivery and regeneration activity can support sustainable mobility. However, there is little evidence on how patterns of new housing development support or inhibit sustainable mobility, which in turn makes it difficult to evaluate the true impact of changes to planning policy.

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<sup>8</sup> See: Wenban Smith, A. 2017. *Land-use drivers of transport emissions – revisited*. Proceedings of the Institution of Civil Engineers – Transport. Available from: [doi.org/10.1680/jtran.15.00097](https://doi.org/10.1680/jtran.15.00097)



14. To address this gap, the RTPI's Location of Development study has mapped the location of planning permissions for over 226,000 new homes, granted between 2012 and 2017 in twelve fast-growing English city-regions. Through spatial analysis and discussions with professional planners, this study then considered how patterns of growth might impact upon wider sustainability objectives.
15. The study found that only 17% of the mapped housing permissions were within easy walking or cycling distance of a railway, light rail or metro station – which in the context of declining local bus coverage, suggests that patterns of housing growth may result in higher levels of car use. More information on this study can be found at [rtpi.org.uk/locationofdevelopment](http://rtpi.org.uk/locationofdevelopment).
16. The RTPI is also represented on the steering group of the Transport for New Homes project, which is funded by the Foundation for Integrated Transport. This fieldwork presents evidence that new housing estates and urban extensions are being located and designed in ways that limit the scope for sustainable mobility options both now and in the future<sup>9</sup>.
17. On a more detailed level, automation must be designed and regulated to fit into pedestrian-friendly urban environments, rather than the urban environments redesigned to enable the free flow of automated vehicles.

#### **Question 4: What possible market failures might emerging technologies and trends give rise to that could require intervention by Government?**

18. There is not an 'industry' or 'technology' for walking, so pedestrians are not part of an industrial strategy and intervention will be necessary to ensure that people walking are not disadvantaged by the drive to be world leaders in transport industries and technologies. There is also a link between new business models and data and connectivity. Unified platforms are likely to be the most effective, but might stifle competition, as might intellectual property rights.

#### **Question 9: What other actions should Government prioritise to help people, businesses and cities prepare for the future?**

19. As discussed in the document, engagement is key and local governments at all levels need to be properly resourced if they are to engage in a meaningful way. One of the most meaningful ways to prepare for the future and encourage the acceptance of change is to undertake place-based visioning, so that emerging technologies and services become ways to reach that vision. Strategic planners should have a seat at the top tables in local government to provide place-based leadership.

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<sup>9</sup> Foundation for Integrated Transport. 2018. *Transport for New Homes*. Available from: [transportfornewhomes.org.uk](http://transportfornewhomes.org.uk)



**Question 10: Which ‘missions’ in the areas we have identified could be most effective in driving innovation and investment? Please refer to the criteria suggested in paragraph 2.6.**

20. One mission might be the creation of ‘child-friendly’ cities,<sup>10</sup> which requires innovative design and attracts talent and investment to an urban area as it becomes safer and more liveable. It also fosters innovative future generations.

**Question 11: How should Government funding be targeted to help UK innovators build and scale transport solutions?**

21. The UK has a history of innovation in planning, architecture, and urban design, and has exported such skills around the world. This should be fostered as much technology development and engineering for investment in education and skills.

**Question 12: Which laws or regulations not currently being addressed need to be amended or created to help harness the benefits and mitigate any risks associated with new transport technologies or services?**

22. Regulation and the highway code should create a clear hierarchy of transport modes, with pedestrians at the top, in terms of not just travel behaviour and local street design, but also in terms of use of the road and liability in an accident. Energy and telecoms regulation might also need updating to reflect the increased demand for electricity and bandwidth, and whether some of this should also be developed at a more local level to create redundancy and resilience. Licensing for use of the public highways may need to become more flexible, as not all new services fit into existing categories (like taxis, bus stops, etc).

**Question 14: What further actions should Government prioritise for resolving barriers to data sharing and use in the mobility sector while protecting privacy and security?**

23. It would be sensible to set out guidelines for data-sharing obligations for new mobility services (shared mobility, MaaS, etc) and operations at an early stage in their development. Some level of monitoring and reporting, if not real time information, should be made publicly available, for example in the same way as traditional public transport.

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<sup>10</sup> Arup. 2018. *Cities Alive: Designing for Urban Childhoods*. Available from: [arup.com/perspectives/cities-alive-urban-childhood](http://arup.com/perspectives/cities-alive-urban-childhood)