

Look beyond short term projections to guide post-COVID infrastructure decisions, says Commission

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Analysing a range of scenarios for how the use of public transport, broadband networks and utilities might change as a result of COVID-19 and regularly reviewing which trends seem to be playing out is the best way of avoiding policy paralysis in the face of huge uncertainties, according to the National Infrastructure Commission.

Behaviour change could make a significant difference to infrastructure demand for some sectors, but public surveys and initial responses as the UK edges out of COVID restrictions are not a reliable guide to shifts in mass behaviour over the longer term, the Commission suggests in [a paper published](#).

Noting that it is too early to assume that forced changes during the pandemic will necessarily result in ongoing shifts in behaviour, the Commission has developed five scenarios for different plausible futures based on varied amounts of home working, movement from cities and appetite for social gatherings.

Given the extent of uncertainty about future behavioural change, comparing the variance between

these scenarios is the most useful insight for infrastructure planning, suggests the Commission.

The Commission's approach indicates that public transport faces the widest possible range of impacts from behaviour change. The average number of public transport trips in the scenario with lowest estimated demand is around 25 per cent lower than in the highest demand scenario over the next 30 years, though the paper stresses the level of uncertainty about how demand could be affected by other factors such as economic and population growth. Variation of private car use between the scenarios is less significant but still marked, with a range of 10 per cent between scenarios.

The paper also sets out how changes in the distribution of demand over time and place could be as significant as changes in its total level, particularly for networks like public transport built to manage peak time capacity. For example, flexible working may mean flatter peaks on public transport, or a small amount of additional road traffic could lead to congestion in some town centres, potentially slowing journey times considerably.

For other infrastructure sectors uncertainty is more modest – the difference between highest and lowest demand scenarios is less than 10% for utilities. The Commission's modelling suggests broadband demand could vary markedly between scenarios, but not at a level that is significant compared to very fast rates of capacity expansion already taking place.

Lessons can be learnt from historic shocks on the circumstances which have led to shifts in infrastructure demand, including the role of public policy in influencing the impact and duration of such changes. "Policymakers should consider how policy can encourage preferred shifts in behaviour," the paper notes. "For example, as people's patterns of transport use are changing in response to the pandemic, there is scope to encourage more active travel or avoid a recovery scenario in which travel by car rises relative to pre-pandemic usage."

The Commission proposes that, despite the considerable uncertainty about the future, major infrastructure decisions cannot be unduly postponed and close attention will need to be paid to how the recovery unfolds, informed by better data sources which may highlight significant trends.

The Commission highlights the importance of long term investments being assessed against the full range of potential scenarios rather than speculative projections, and the value of adopting an 'adaptive' approach to investment, which the Commission advocated recently in its [Rail Needs Assessment for the North and Midlands](#). This involves progressing schemes in phases, as costs and benefits become clearer.

The Commission will consider the scenarios in its own forthcoming work, including in its [study of the role of infrastructure in towns](#) and preparations for the second National Infrastructure Assessment due to be published in 2023.

Commissioner Andy Green said: "The inconvenient fact is that it is always too soon to know what will happen in the future. Responsible investment decisions require honesty about the huge uncertainties that exist in considering which behaviour changes will remain decades after COVID restrictions are lifted. But infrastructure decisions cannot be postponed indefinitely and the scenarios we have set out

provide one tool for assessing the best options.

“While there are no easy answers, another tool is to adopt a phased approach to major investments, identifying trigger points for different project stages based on what the data is telling us about long term shifts in how we live and work.”

Photo credit: National Infrastructure Commission