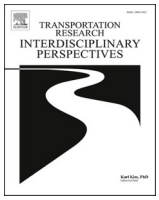
Transportation Research Interdisciplinary Perspectives 31 (2025) 101459

Contents lists available at ScienceDirect

Transportation Research Interdisciplinary Perspectives

journal homepage: www.sciencedirect.com/journal/transportation-research-interdisciplinary-perspectives



# Transport governance system response during the COVID-19 pandemic: The allure of a 'new normal' and its implications for tackling the polycrisis

Iain Docherty [a], Greg Marsden [b,*]

[a] Institute for Advanced Studies in Management, Work and Organisation, University of Stirling, Stirling FK9 4LA, United Kingdom
[b] Institute for Transport Studies, University of Leeds, Leeds LS2 9JT, United Kingdom

ARTICLE INFO

*Keywords:*
COVID-19
Transport
Travel behaviour
Policy change
Power
Governance

ABSTRACT

This paper examines how the UK transport governance system responded to the COVID-19 pandemic and what this reveals about its capacity for transformative change amid broader societal challenges, or the "polycrisis." Drawing on a unique longitudinal dataset of interviews with senior transport decision-makers across four waves from 2020 to 2021, the study explores the tension between policy stability and change. While the pandemic disrupted travel behaviour—reducing commuting, increasing remote work, and shifting modal preferences—governance responses largely aimed to restore pre-pandemic norms and practices rather than seize the opportunity for systemic transformation.

Despite recognition of significant behavioural shifts and the potential for substantial long-term behavioural adaptations, a combination of institutional inertia, rigid funding mechanisms, and entrenched professional norms constrained adaptive policymaking. Instead, a desire to "return to normal" dominated, driven by political, fiscal, and operational pressures, which has left the sector in a worse position than before in terms of its capacity to tackle longstanding policy challenges and achieve the non-incremental shifts required to address the critical problems it faces.

The implications of the work are a need to move beyond the false "change versus stability" narrative and recognise that some societal trends are constantly in flux whilst others endure. Policy recognition of the change in the everyday is a pre-cursor to policy change in both more stable and turbulent times, rather than hoping that events will somehow conspire to unlock the more radical responses that are recognised to be necessary to respond to the polycrisis.

## 1. Introduction

At the time of writing this article, five years after the first lockdowns imposed following the emergence of COVID-19, decision makers across almost all domains of public policy are coming to terms with the lasting impacts of the behaviour change triggered by the pandemic and the disruption to established trends and long-term plans that it brought about. In what might be termed the 'early aftermath' of the acute phase of the public health crisis, much soul searching is being undertaken to reflect on how governments responded to COVID across the range of public policy domains, what the lessons of the pandemic are in terms of the capacity of government to act effectively, and whether we are any better prepared for the next pandemic or other 'long emergency' as a result (Martin et al, 2023; Davies et al, 2025). As the more persistent impacts of COVID linger, policy postures are being recast to take account of previously unforeseen changes across society and the economy. These range from the impact on healthcare systems of 'long COVID' and treatments missed or delayed due to lockdowns (Rajan et al., 2021; Wilkinson, 2022) and the impact on educational attainment (OECD, 2023), to the potential restructuring of labour markets brought about by 'the great resignation' and the early retirement of people who can afford to leave the workforce (Fuller and Kerr, 2022).

Although less immediately visible in the public debate compared to issues such as health and social care, education and employment, the transport and mobility sector has nevertheless been one of the policy domains most profoundly impacted upon by the pandemic, both as a direct result of restrictions put in place during the pandemic and wider restructuring of aspects of society resulting from it. Whilst there has, hitherto, been a very limited tradition of studying what we can learn from behaviour change during major disruptions (Kontou et al., 2017;

* Corresponding author.
*E-mail addresses:* Iain.Docherty@stir.ac.uk (I. Docherty), tragrm@leeds.ac.uk (G. Marsden).

https://doi.org/10.1016/j.trip.2025.101459
Received 27 November 2024; Received in revised form 2 May 2025; Accepted 6 May 2025
Available online 11 May 2025

Marsden et al., 2020; van Exel and Rietveld, 2009; Zhu and Levinson, 2010; Marsden, 2025) the COVID-19 pandemic sparked a huge international wave of data collection. The overwhelming majority of these studies were conducted into how travel patterns changed at specific inflection points in time, which have now been summarised in various systematic reviews (Peralvo et al., 2022; Lee and Eom, 2024; Lizana et al., 2024). The findings from the UK, where this paper is written from, share common characteristics with many parts of the developed world: steep declines in public transport patronage which have not fully recovered, reductions in commute travel by all modes and, an increase in service traffic with a switch to more intense on-line practices (see Table 1).

Those rare policy 'moments' at which the evidence base and/or exogenous factors shaping established trends are brought into unusually sharp focus, such that the potential to achieve substantive shifts in attitudes and/or behaviours becomes more widely visible than usual, are potentially crucial opportunities to alter the trajectory of policy development and implementation (Pykett et al, 2023). In the face of a polycrisis including climate change, energy costs, political shifts to the right and war (Lawrence et al., 2024), it is essential to know whether the response to the pandemic shows a pathway to more adaptable and ambitious policy making or whether it risks locking in past practices which become even less well aligned with the challenges of the day. However, compared to studying the impacts on travel behaviour, there has been very little attention paid to the study of how institutional actors behaved during the crisis and what the implications of the pandemic are for future policy making in the sector. Hirschorn (2021) explored how governance arrangements in the Netherlands influenced the way in which state-aid was provided to the public transport system. Harris and McCue (2022) explored the politics around 'pop-up cycle lanes' in Sydney, finding that the pandemic unlocked previous objections to bike infrastructure. Neog et al. (2025) examined the behaviour of public transport agencies in 2020 which, prior to the pandemic, had generated an upward trajectory of patronage, finding that they believed that the pandemic had created a 'new normal' with lower patronage levels and their response should be to focus on their core market that had returned to the bus. Perhaps given the unprecedented scale of the changes seen, both in terms of how the demand for travel changed and how the significantly greater government financial support for transport providers was managed, it is unsurprising that there is a wider narrative about how transport might 'get back to normal' (e.g. UITP, 2023).

Understanding the institutional response during COVID-19 is critical because, for decades now, the key debate in the transport and mobility sector has been about how to manage policy change incrementally so that the mobility system moves towards a more environmentally sustainable, less car dependent position overall, whilst avoiding destabilising disruption to everyday economic and social life. This sits in stark contrast to the evidence which suggests that transport is now the sector with the highest carbon emissions in many economies and where realistic strategies to get back on track with committed carbon budgets go well beyond incremental change (Brand et al., 2020). A priori there is strong evidence to suggest that institutions can be slow and difficult to change until "challenged or problematized" (Torfing, 2009: 81). In the transport sector, there is a significant path dependency assumption in terms of the commonly held view that change is inevitably slow given the fixed nature of major infrastructure such as road and rail networks, the intricacies of the planning system and more generally due the highly complex infrastructure/service provision/travel behaviour interactions that define the socio-technical systems underpinning mobility (Cass et al., 2018; Thompson, 2022). However, it is critical to test these positions and the extent to which policy shaping strategies which are path changing rather than path dependent can succeed.

This paper explores the nature of policy change and policy stability and how competing actors and interests understood and expressed their logics and actions through the governance system in response during the COVID-19 pandemic. Given the considerable uncertainty resulting from successive waves of infection and responses to them across the public health crisis phase of the pandemic, exploring institutional responses at single points in time is important but limited. In this study, we report on a four-wave set of interviews with decision-makers in 17 organisations across all transport modes and a range of geographies in England and Scotland conducted between May 2020 and December 2021. We are not aware of any other longitudinal data set of this nature and, whilst the context reflects the UK governance system and its debates about the impact of devolution and policy divergence between its constituent countries, the analytical framework deployed allows for the identification of some key transferable themes and insights.

The paper is organised as follows. In Section 2, we review the public policy literature on modes of policy change and the debates about how best to understand crises and policy turbulence (Ansell et al., 2023). For the transport sector, which is heavily rooted in engineering and economic traditions of resilience and equilibrium, the innate response has been to label the post-pandemic period as a return to some sort of 'normality', or, moving to a 'new normal' (e.g. Zafri et al., 2021; Peralvo et al., 2022; Filgueiras et al., 2024; Neog et al., 2025) which is variably described as incrementally better or worse than the status quo ante. This is set against the need to deliver more transformational governance in the face of the polycrisis, and other contributory long-standing policy challenges (Pot et al, 2023), which frames change as desirable and ongoing. An analytical framework to explore the interactions between stability and change is described before discussing the role of different actors within the governance system and their power to promote or frustrate change within the transport and wider policy system. Section 3 describes the research methodology and the approach to coding. Section 4 presents the results of the interview analysis aligned to the analysis framework and coding outcomes. The paper concludes with a discussion and conclusion in Sections 5 and 6 respectively of what the study of the governance system response to COVID-19 tells us about future research needs and the potential for more transformative governance in response to the polycrisis.

**Table 1**
Key COVID-19 Impacts on the transport sector.

| Indicator | |
|---|---|
| Rail patronage | 40 % fall from pre-pandemic levels |
| Rail Season Tickets | Reduction from 20 % to 7 % of industry revenue |
| Bus patronage* | 20 % reduction compared to equivalent figure in 3rd week of January 2020 |
| Bus service levels | 8 % reduction in bus service miles operated from 2019/2020 (bus02_mi.ods) |
| London Underground* | 26 % fall from pre-pandemic equivalent weekday |
| Weekday car use* | 3 % fall from February 2020 levels |
| Working from home | Increase to 40 % at least once per week in Jan/Feb 2023, up from 12 % in 2019[a] |
| Car ownership | Reduction of 1.8 % by June 2023 from longitudinal panel study[b] |
| Car purchasing | 1.61million (2022) 700,000 below pre-pandemic levels |
| Light Goods Vehicles | 115 % of February 2020 levels |

* Weekday average 03/07/23 to 04/08/23.
[a] ONS data.
[b] TRANSAS COVID-19 Study data (contact corresponding author).

## 2. Literature review – governing change

### 2.1. Policy purpose

We take as our philosophical starting point that the task of governing is essentially purposive, and that administrators within any democratic system of governance seek to define and achieve a set of policy goals that represents the balance of competing "beliefs, practices, traditions and dilemmas" that are negotiated in the civic sphere (Rhodes, 2007: 1244)

as fully as possible. We subscribe to Bryson et al's (2014: 446) model of the role of the state having evolved such that its legitimacy is now derived from acting as the guarantor of public values defined from this negotiation of agreed societal objectives, and acceptable regulatory boundaries for the operation of the market determined through "broadly inclusive dialogue and deliberation". At the practical level, this means that the purpose of public policy development can be crystallised as being about "solving common problems to achieve lasting public or civic value" (Boyte, 2011: 632).

The transport sector plays an important role in a wide range of common problems and it impacts on a series of societal objectives such as climate change, air pollution, economic growth, inequalities, physical activity and health, safety, severance, biodiversity etc. (Van Wee, 2023). Whilst progress can be made in particular areas such as safety (Fisa et al., 2022) or air pollution (Khreis et al., 2023) the pace of change is often slow, uneven and can be insufficient, for example in the case of climate change (Marsden and Schwanen, 2024), or small in scale relative to transport growth in the whole economy (e.g. in the case of congestion externalities (DfT, 2022)). The challenges of formulating effective transport policy are well documented (McTigue et al., 2020; Sørensen et al., 2014; Curtis and Low, 2012) in part because many of the challenges are 'wicked problems' which defy simple solutions (Stead and Reardon (2025). However, transport policy has also been characterised as slow to change because of the different institutional histories of the different modes (Low and Astle, 2009) and the path dependencies of different infrastructures (Arts et al., 2016). Coupled with this is a tightly developed technical hegemony which has developed around the expansion of car-based transport (Urry, 2004) and which struggles to recognise alternative pathways (Marsden and Schwanen, 2024).

### 2.2. Stability and change

The framing of stability, equilibrium and normal sits in stark contrast to the growing literature on turbulence and 'polycrisis' / 'permacrisis' that seeks to set out the scale of the challenge facing 21st century capitalism and democracy given climate change, geopolitical tension, societal aging, automation and other profound challenges to contemporary society (Kotarski, 2023). What then, of the prospects for more rapid policy, and perhaps institutional change, to be able to respond to these crises? Ansell et al. (2023) highlight that orderliness in public policy has often been viewed as temporary, with punctuations of crisis, turbulence and change emerging frequently over time. However, whilst order might inevitably be temporary, it is also the dominant framing of what makes for 'good' or 'successful' public policy and governance. Stability is associated with mathematical equilibrium, balancing opposite ends of the political spectrum in a democracy, and therefore ensuring that democracy itself is resilient (Przeworski, 2005). Indeed, in the transport sector the notion of equilibrium and the importance of engineering resilience are both reflective of stability and a normal order of things (Mattson and Janelius, 2015) to which the system should return to following any shock.

Ansell et al. (2023: 5) further suggest that the desire for stability is not just an operational concern but a political one, as the "bureaucratic quest for stability and predictability is motivated by an interest in maintaining sovereign political leadership while simultaneously protecting citizens against arbitrary administrative decisions. Hence, stability is seen as inherently good, thus making instability and disorder a problem". This is reinforced by the behaviours of bureaucrats and professionals who seek to limit "deviation from the organizational script" (Ansell et al., 2023: 5). Of course, no system of governance is completely stable, and so in the framing of stability as the prime objective of the state, those challenges to the status quo that do appear – and might even be regarded as positive agents of change – are nonetheless regarded as short punctuations in a longer narrative of stability (Hall, 1993; Baumgartner et al, 2018). This framing of crises as only temporary moments of change means that any shifts observed are characterised as moves towards a 'new normal' (Peralvo et al., 2022), which denies or marginalises the potential for more fundamental long-term shifts in beliefs, goals, actions or resources.

### 2.3. Crisis responses

In transport research, there is comparatively little study of governance and policy change during crises. Kim (2021) reviewed the changes to US security policy in response to the terrorists attacks of 9/11 noting the formulation of new Government Agencies, rules, security procedures and infrastructures. In our previous work, we explored responses to events such as bridge closures and major weather events, noting that there was a reconfiguration of social expectations facilitated by government, businesses and individuals to events and that some of this would persist even when the initial stimulus for action was removed and the infrastructure and services went 'back to normal' (Marsden et al., 2020). The COVID-19 pandemic had an extended impact on society and governments around the world, with transport being particularly impacted (Lee and Eom, 2024). The scale and depth of the crisis precipitated by the pandemic provides a critical opportunity to understand how institutions responded and adapted and, in-turn, to learn what this tells us about the scope for the policy system to respond to the imperative of tackling climate change and other aspects of the polycrisis and the potential for future more radical change.

The literature on public administration and public policy explores governance responses to turbulence which is defined as a "state in which change is sudden, surprising and difficult to understand or track", where the complex nature of the changes requires multiple actions which can create "contradictions and dilemmas" (Ansell et al., 2023: 2). The presence of such contradictions requires that bureaucracies and networks "have the wherewithal to disrupt their own expectations, biases, hopes and group norms as they interpret information" (Ansell et al., 2023: 16). In order for the governance system to emerge from such shocks, and be better capable of delivering public value, means it must be better equipped for future policy change. Such outcomes are reflective of what is deemed a "robust governance response" which allows for the learning to impact on goals, logics and approaches to solving policy problems (Howlett and Ramesh, 2023: 26). This can be contrasted with more "resilient" governance practices which enable existing policies to continue functioning despite the changes to the policy environment (Howlett and Ramesh, 2023: 29). In cases where perturbations to the policy system are small then a resilient policy design approach may be appropriate, but such an approach could be a poor fit to an environment where the nature of the policy problem, politics and solutions have more radically changed.

### 2.4. Analytical approach

Understanding how institutions and agents of public administration react at those moments of turbulence is therefore crucial to deepening our understanding of the scope to reposition key policies to meet contemporary challenges and is the first major topic of exploration for this paper. The analytical framework informing our approach is built first from the work of Ansell et al. (2023), who argue that stability and change are not, in fact, polar opposites but are instead both present to differing degrees in contemporary governance. Understanding the public policy system's capacity to respond to events and capture public value therefore requires a deep understanding of how stability and change interact through the following three components (Ansell et al., 2023: 9):

- System functions (e.g. providing an affordable public transport service);
- Institutional infrastructure (e.g. regulation of public transport markets and transport taxes);

- Societal transformations (e.g. behaviour during pandemics, demographic trends or structural changes to e.g. the cost of housing).

Our approach also draws on discussions around the importance of the shift from hierarchical to network governance. Whilst it is widely accepted that a greater range of non-state actors now influence how policy is made and delivered, it is also suggested that during crises, the state may become a more influential actor within the network and that studying how network coordination plays out is important (Peralvo et al., 2022). Indeed, returning to the recognition that large complex socio-technical systems that exist within transport are difficult to change suggests that there is a need to understand the impact of the power and agency of key actors within these systems (Kok et al., 2021). This is closely aligned with Cairney's (2019) version of Lukes' (1974) classic three dimensional framing of power as being about the varying capacity of different actors within the system to 'win debates' determining key decisions, their related ability to 'set the (broader policy) agenda' through these decisions, and therefore their scope to achieve 'thought control' in terms of how the parameters of the policy debate are defined and understood in wider public discourse. This conceptualisation of power as a multifaceted phenomenon through which discrete 'victories' of key players can shape systemic decisions at critical moments offers a crucial lens through which to perceive, conceptualise and understand the motivations of these actors as they seek to achieve their objectives within the policy system, and what the wider implications of their actions might be. In practical terms, the second critical area of exploration in this study is, how do the various actors and interests shape what the policy response is and whose version or versions of a "post-Covid" recovery strategy hold sway and whose do not?

## 3. Methodology

The original data on which this paper is based are drawn from a longitudinal series of interviews with some of the most senior policy makers and industry leaders in the UK transport sector. We established the panel in spring 2020 by contacting several elite actors with whom we have corresponded with and/or interviewed for other research projects over a considerable number of years. Every person we approached agreed to participate in the project, illustrating the seriousness of the circumstances in which our request was made: we asked for participation in our research on the basis that the deep and unprecedented uncertainty of the initial lockdown period meant that there was an opportunity to create a genuinely novel and potentially unique dataset tracing how the industry would react, and what the long-term implications of the pandemic might be, for the benefit of the whole sector in future. 17 interviews were held in the first round. Two additional interviewees were added, one for rounds 2 to 4 and one for round 4. On some occasions multiple people participated from a single organisation, but this was dependent on the circumstances of the time, and we had continuity of interviewees in all but two cases (as a result of role changes). The nature of the participants, timing of interviews and participant numbers are set out in Table 2. We are not aware of any other longitudinal study of this nature in transport. Neog et al. (2025) report on interviews with stakeholders of 10 'successful' bus-oriented transit agencies and how their leadership responded, but as a one-off survey during late 2021 and early 2022. This lack of longitudinal exploration is reflective both of the challenges of accessing stakeholders in a crisis, but also of the more limited engagement of transport researchers with understanding the detail of policy change with policy makers (Marsden and Reardon, 2017).

Whilst this approach could be conceptualised as a relatively 'standard' purposeful sampling strategy designed to capture knowledge from critical information-rich, senior people (Suri, 2011), the degree of access we had was remarkable. At the outset of our work, we obtained ethical consent for the research based on strict anonymity, although we were clear with each participant that, given we would be working with a number of the most senior people across the industry, interviewees would in many cases know each other, have important ongoing working relationships, and so some views and turns of phrase would likely be identifiable. This did not inhibit discussion: the openness and candour about the scale of the challenges being faced and, in some cases, the doubts we heard about whether they could be overcome, were stark. We have chosen not to provide further specification on role type, age or gender in Table 2 to minimise the risks of identification.

**Table 2**
Participants in study[a].

| Participant | Round 1 May-June 2020 | Round 2 Oct-Nov 2020 | Round 3 May-June 2021 | Round 4 Nov-Dec 2021 |
|---|---|---|---|---|
| 01 English Local Authority Transport Strategy Lead | x | x | x | x |
| 02 Scottish Civil Servant 1 (National) | x | x | x | x |
| 03 Scottish Civil Servant 2 (National)[∞] | x | x | x | x |
| 04 English Combined Authority 1 | x | x | x | x |
| 05 UK Non-Governmental Organisation (cycling) | x | x | x | x |
| 06 GB Rail strategy and delivery lead[b] | x | x | x | x |
| 07 English Civil Servant 1 (National) | x | x | x | x |
| 08 GB Network Operator (rail)[b] | x | x | x | x |
| 09 UK Industry body (public transport) | x | x | x | x |
| 10 GB Rail operator | x | x | x | x |
| 11 UK new mobility service provider | x | x* | x | |
| 12 GB Bus operator[b] | x | x | x | x |
| 13 Scottish Local Authority Politician | x | x | x | x |
| 14 Regional Transport Body 1 | x | x | x | x |
| 15 Regional Transport Body 2 | x | x | x* | x* |
| 16 English Combined Authority 2 | x | x | x | x |
| 17 UK Transport Consultant[b] | x | x | x | x |
| 18 English Civil Servant 2 (National) | | x | x | x |
| 19 UK Infrastructure expert | | | | x |

* marks a point of change in lead interviewee.

[a] For a further in depth exploration of the different transport responsibilities of tiers of government see https://www.gov.uk/government/publications/future-of-mobility-governance-of-uk-transport-infrastructures.

[b] participated in a validation interview to discuss our interpretation of findings in Summer 2023.

A generic framework of semi-structured interview questions was developed for each round (available in the data repository) which was then tailored for the specific organisation and geographical responsibility of each respondent. After the initial round, we chose the time windows for subsequent interview waves to capture as best we could views about both policy cycles (e.g. lockdowns and gradual reopening of the economy by sector) that had recently ended, and also to ask about the outlook for key forthcoming time periods such as the autumn'back to school' weeks when travel demand was traditionally at its highest in the year. The interview sessions themselves, each around one hour in length, were undertaken using Microsoft Teams, and our interview notes and the edited transcripts generated by the Teams application form our dataset. Once our analysis was complete we met with a sub-sample of the interviewees to test our findings in 'validation' interviews, the purpose of these being to inform and cross check our interpretation rather than generating new primary data.

In our first round of interviews, undertaken in May and June 2020 at the height of the first wave of infection and mortality and under

conditions of maximum uncertainty, we discussed with our participants the gravity of the situation, the scale of its impact on the sector, and the collective moral imperative of researchers and participants to capture as much information about why decisions were made in the ways they were. These interviews were the most intense that we have experienced in our careers, with the scale of uncertainty, potential risks to the very existence of some organisations, and the personal cost of the pandemic clearly evident in many of these conversations. Our interview material records reflect the acknowledgement that COVID-19 represented the most significant disruption that anyone then working in the sector had experienced, and how this evolved into consideration about whether the scale of behaviour change in transport use, mobility and the wider economy meant that many aspects of the sector might never be the same again.

In undertaking our interviews, we did not formally specify any overarching hypothesis or proposition set, recognising that the unique context and dataset generated by our work. Instead, we defined our role as being that of observers well placed (and indeed, given our level of access to key decision makers, with a moral imperative) to record, interpret and understand how the transport sector reacted to the pandemic given its lasting significance for public policy. The dual change and stability narrative emerged strongly from the interviews both within and across interviewees. This informed our approach exploring the interdependencies of change and stability evident in the literature review in order to understand the role of power within and across the elements of the transport policy system, and the charged issues surrounding decision making in crisis conditions. For this paper we put aside quotes relating to the dynamic nature of change in relation to managing the practicalities of the social distancing restrictions and focused on those which appeared relevant to the longer-term potential pathways for policy.

The manuscripts were first coded inductively for quotes related to these two broad macro-headings of change and stability. The next stage of the approach was deductive with mind maps of the nature of the quotes drawn up and these were used to cluster quotes into a smaller number of nodes (Braun and Clarke, 2006). Fig. 1 below shows an example node, focusing on how different narratives of changing travel demand emerged and how they related to the functions of city centres. After revisiting quotes and thematic clusters, the set of nodes was finalised and deployed across both the stability and change data (Table 3). These were, in turn, sorted according to the three components identified by Ansell et al. (2023) as set out above (system functions, institutional infrastructure and societal transformation). Drawing on the example from Fig. 1, these nodes were merged into one theme which was 'future of travel demand' under 'change' and 'societal transformation'. As will be seen in the analysis, there is considerable cross-over of nodes spanning change and stability, referencing the anticipated complexity in the interaction of the two. However, there are also distinctive areas of discussion that appear unique to each of the two macro themes. In reporting our analysis, we use respondent IDs (from Table 2), with an indication of which wave of data they came from (e.g. W1 for Wave 1) although the thematic narratives came across more strongly than change over time (which was not the case in our earlier work exploring more operational response considerations).

**Table 3**
Analytical nodes.

| | Stability | Change |
|---|---|---|
| **System Functions** | Foundational Logics & Norms<br>Transport System Characteristics | Foundational Logics & Norms<br>Transport System Characteristics |
| **Institutional Infrastructure** | Institutional Processes and Speed<br>Financing<br>Institutional Structures<br>Rail as 'Exceptionalist' | Institutional processes and speed<br>Financing |
| **Societal Transformation** | Agendas<br>Culture and Norms<br>Politics | Future of Travel Demand<br>Critical reflection |

## 4. Analysis of stability and change

This section presents a narrative overview of key aspects of the stability and change logics set against each of the three components from Ansell et al. (2023).

### 4.1. System functions

'Foundational Logics and Norms' featured strongly in both the change and stability narratives. Arguments advanced around stability emphasised the long time horizons over which transport modes and technologies develop, how this time frame shapes consistency in the ways in which society moves, how the transport system has been organised to facilitate these patterns of mobility, and in turn the wider societal values that transport has come to represent. Example statements included "connectivity is still vital" (W1-08) and "mass transit is part of the fabric of how we live" (W1-08). Others talked of the importance of human contact (despite the rapid expansion of digital tools), freedom to move around and the importance of face-to-face interactions and the impacts of loneliness. The movement of goods, which very quickly recovered after initial lockdown to soon exceed pre-pandemic levels, was flagged as being critical but often overshadowed by passenger transport concerns. For some, there was little need to rethink the basics of travel demand because the problems which they had been planning to address – such as a lack of capacity on East-West rail corridors in the North of England – had been left unresolved for decades, and even if committed to now, would not see solutions come to fruition for similarly long periods of time. Any shifts in travel behaviour resulting from COVID-19 were, given these very long planning horizons for infrastructure development, seen as a temporary distraction. For others,

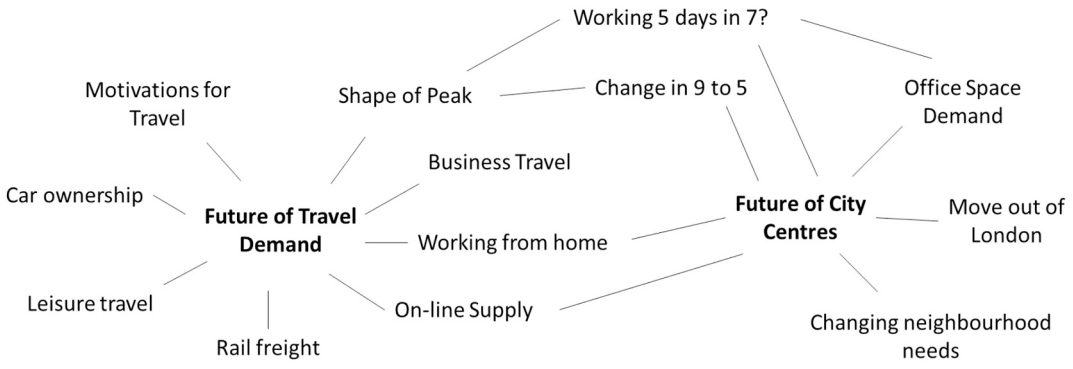



**Fig. 1.** Initial Mind Mapping of statements on the Future of City Centres (ultimately coded under societal transformation).

stability in other aspects of travel behaviour experienced during the pandemic reinforced some long-held views about the real scope for policy change, e.g. "it's just shown how hard it is to get people walking and cycling" (W1-16).

Other respondents questioned the basic assumptions on which transport planning has been built upon more fundamentally. One respondent suggested that we require a "total rethink of the economics of transport" (W1-01) and that "large parts of the economy don't need as much transport as perhaps they thought" (W1-16). Another said that this was because people were re-evaluating a lot of travel as a "waste of time" (W1-17), using the example of business trips to in-person meetings. This led to a discussion about whether the decisions which followed from the established logics were, in any case, the optimal ones given what we know about the contemporary transport sector. In particular, long running attempts to design and fund more and more infrastructure and services to accommodate a highly concentrated (morning) commuter peak were robustly challenged. The very low levels of road traffic during the initial lockdown period in spring 2020 were seen by some as an unexpected opportunity to think through the factors underpinning the attractiveness of walking and cycling, and led to the emboldening of logics around delivering low traffic neighbourhoods and car free city centres, with roadspace transferred to active travel, businesses such as cafes and restaurants and other public uses. Whether the schemes implemented at the time were ideal in terms of design was perhaps less important than the busting of myths about what people really valued in their local communities, and the building of practitioner and political confidence about what could really be done in terms of developing low traffic zones in the UK.

In the early stages of the pandemic, there was considerable optimism about the potential to introduce meaningful change in terms of the 'Transport System Characteristics' node by, for example, rapidly real-locating roadspace from the car to public transport, cycling and walking given most road traffic-generating economic activities were closed, and there was evident scope (and in many cases, a longstanding desire) to re-purpose space on the road network to non-car modes. Yet much of this ambition faded before long due to difficulties in delivering even modest schemes in practice, due at least in part to the ability of those opposed to this kind of policy change to argue against it, particularly by mobilising local objections.

Even amongst advocates for change, there was often a significant interest for short to medium term stability in order to prepare the ground to embrace (radical) new mobility choices in future. Several public transport operators and planners we spoke to described their own version of the 'dual crisis' management challenge in these terms: it is well understood that it is much more difficult to win customers back to public transport once they have found other ways of doing things. Even more difficult is bringing back services which have been withdrawn (see Table 1 on the reduction in bus miles operated). Maintaining pre-pandemic service levels to the greatest degree possible, despite un-precedented falls in demand, so that a longer-term view could be taken on service pattern adjustment therefore became a prime objective for many. The transport system was necessarily going to have to change in response to COVID-19, but it would be preferable to take a managed approach safeguarding as much as possible of the existing assets and employment in the system. These arguments about the need to avoid 'hastiness' in reacting to the pandemic quickly formed the basis of much of the sector's lobbying of the Treasury to extend pandemic support funding sufficiently to underwrite pre-pandemic service levels as much as possible. From an overall system perspective, there was a collective belief that fewer public transport services would be run as we emerged from the pandemic with a significantly higher subsidy requirement than pre-pandemic. There was less agreement over how long such a position would be supported by Treasury.

### 4.2. Institutional infrastructure

'Institutional Process and Speed' threw up some interesting examples of both rapid change and stability. Institutional flexibility such as changes to emergency timetabling for railways and approval timescales for new bus services showed that "Government has realised it can make decisions very quickly" (W1-15). Operationally, the system responded well to developing public health guidance on social distancing, maximum vehicle occupancy and so on. This was attributed, in part, to preparedness for other emergencies for which operational response plans existed. What the sector was less well prepared for was something which impacted on both operational practicalities and the demand for travel simultaneously.

Despite the examples of rapid adaptation of rules and regulations, respondents quite quickly reported frustration with the experience of making, or trying to make, even minor changes to physical infrastructure. Key issues were the long timescales over which public consultations were expected to be undertaken and the rigidity of the rules surrounding these. Several respondents were mindful of the potential (political) risks arising from experimental interventions such as low traffic neighbourhoods if they were not well received. There were also difficulties in translating the available central government funding to new bus and cycling improvements on the ground. The decision making and scrutiny processes that came with new money were described as unwelcome and/or inappropriate "micromanagement" (W2-04) or even "surreal" (W2-17) given the context. One crucial observation was that despite the invocation to local authorities to act quickly, policy making had in fact become even more centralised than before given "Treasury control over policy has increased because everything depends on printing money" (W2-14).

On top of this, when stimulus money was made available for larger schemes, it was only those organisations with 'shovel ready' projects that could take advantage. Local authorities in particular reported a chronic lack of capacity to accelerate progress on delivering new transport schemes both because of a shortage of workers due to COVID-19 absences but also because a lot of professional services staff had been diverted to other 'front-line' positions. Indeed, one of the key learnings reported by central government actors in England was "just how thinly stretched" local authorities really are (W2-18). There was very little discussion of horizontal links between organisations or notions of network governance, with the particular exceptions of business interests lobbying extensively for 'back to work' policies to rebuild city centre footfall (and thus retail spend), and bus operators managing service changes in discussion with local authorities as part of emergency financial support mechanisms. We heard many accounts of decision makers' time being devoted to the requirement to respond to government and manage the different financial mechanisms for the release of emergency funding.

Competition law and procurement rules, which limited how and where funds could be channelled, were also identified as key constraints limiting the extent to which policy change could be enacted in practice even if the desire to change had been established. The crisis in rail patronage occurred during the middle of a review of how to reorganise the national rail system in response to various timetabling and franchising problems faced prior to the pandemic. COVID-19 accelerated reaching the conclusion that there would be a need to change the franchising model for rail services as it had "finished off private sector revenue risk taking in rail contracts" (W1-08). The UK government's review of rail industry organisation (DfT, 2021) was published in May 2021 and set out a programme of options to reform rail governance across Great Britain. Despite the recognition of the imperative for regulatory change, the necessary legislation to actually achieve it was not brought forward before the change of government following the general election of July 2024. Indeed, the pre-pandemic institutional rule set for strategic decision making remains largely untouched across all transport modes, and therefore how things actually unfold on the ground has seen

little change.

The 'Financing' node brought together a complex mix of signals. There was a widespread recognition that despite the unprecedented (and in many cases unexpected) level of emergency funding in the early stages of the pandemic, there would nevertheless be at some point a public spending 'reckoning' that would precipitate severe cuts to the level of financial support available to the sector, with the potential to profoundly reshape the scale and scope of the public transport network. As it became clear that social distancing restrictions would remain in force well into 2021, funding that had originally been earmarked for 'transformative' change to help the bus sector meet climate goals and 'Bus Back Better' (Department for Transport, 2021) was diverted to a significant degree to short term revenue support for services suffering from significantly reduced patronage. The impacts of patronage reductions would also be felt by private companies and hence their ability to borrow to fund investment programmes, with bus operators suggesting to us that as decarbonising the fleet was a 'non-negotiable' goal, the trade-off would inevitably be in the form of service reductions. As one respondent reflected, it was difficult to see what the exit path would be for public transport subsidy and that however difficult things were in the midst of the pandemic, public finances were in a perilous state and hence: "enjoy COVID, what comes next will be worse" (W4-12). At the time of that statement, the impacts of the war in Ukraine and the tariffs from the USA could not be foreseen, but these developments have further weakened the fiscal environment in which any post-COVID-19 recovery plans are playing out in.

Another critical issue was the apportionment of risk. Those commercial operators facing revenue risk directly (such as private sector public transport operators or car clubs) had limited time to respond in order to protect their day to day financial viability and/or on-going capacity to service debt. There were also key differences in the government sector, depending on the degree to which revenue risk was held by local transport authorities as opposed to central government. Devolution was also important: In Scotland, the 'alliance' structure that combines several aspects of management and operations between Network Rail and the Scotrail train operating company had generated a more integrated understanding of exposure to cost and revenue risks. As a result, decisions on altering service patterns and investment priorities appeared to be quicker and more dynamic than in England with its much more complex operational structure.

In contrast, there also existed a set of organisations with planning responsibilities but little or no exposure to revenue risk who were funded to simply carry on with business as usual. This resulted in the continued development of investment cases for projects, including major infrastructure schemes, that were on the books prior to the pandemic and for which the economic case would be completely upended if patronage and/or revenue lost due to pandemic-induced travel behaviour change did not (quickly) return. This was driven, in part, by the top-down nature of project development and appraisal methodologies that are extremely complex but essentially 'fixed' between major periodic reviews. In England especially, where there is particularly strong adherence to quantitative investment appraisal underpinned by a national set of estimates for future travel demand, there was "little evidence of strategies changing" (W2-04). This led to the paradoxical situation in which the potential for travel demand to be permanently – and in some cases radically – altered by the pandemic was not only well understood but also widely discussed in professional circles at the same time as scheme development continued as if nothing had happened because "no promoter wants to jump first on recalibrating proposed investment schemes" in case this led to a loss of funding (W2-17). This led to a sense of frustration amongst our government respondents about how little some parts of the industry thought COVID would change things: "One thing you learn is that people continue to ask for the same things and ask you to pay for them" (W4-12).

Others, however, proactively planned for fiscal 'reckoning' and sought to reprioritise their investment pipeline to bring forward schemes they considered would retain strong business cases in most post-COVID scenarios given their alignment with central priorities, especially decarbonisation. Some described this as part of a natural process of moving projects around in a portfolio to maximise their chances of successfully attracting funding. Rather than managing a 'dual crisis', this perspective could be seen as a 'dual opportunity' approach in which consistent tactical reprioritisation of policy priorities is attempted in order to plan and secure funding for a set of schemes for the long term by reformulating arguments to ensure they continue to align with the strategic priorities of the day. Again, those larger organisations that had retained greater depth in professional skills – in contrast to the general trend of 'hollowing out' – were most likely to be adept enough to take this approach. Others, however, viewed the implications of the seismic shift in behaviours with sufficient trepidation. This was especially the case in the rail sector given the scale of its subsidy requirement:

> "if you don't think COVID has changed the world you are in denial. If you don't think it has changed the railway you are in denial" (W4-06).

### 4.3. Societal transformations

There was common ground that COVID-19 had not altered any of the macro-strategic 'agendas' that defined the transport sector's wider societal contribution. Stability in narratives around the role of transport in achieving decarbonisation, raising economic growth and addressing regional economic inequality was clearly evident. It was, however, possible to discern a shift in emphasis between the importance of these different objectives. For example, decarbonisation projects claimed to promote a 'green recovery' were moved ahead of capacity enhancement projects previously justified on the basis of economic growth. As noted above, tactical considerations about safeguarding funding were paramount, and as such, many substantial pivots in policy rhetoric were observed.

We heard many different opinions as to how the travel behaviour change precipitated by the pandemic might play out in the medium to long term, and about what this might mean for how observed shifts in behaviour are framed, analysed and injected into debates on policy reform. Once again, the interdependency of notions of stability and change, and the dual timescale nature of addressing policy challenges came to the fore. Despite there being reasonable consensus that the macro policy objectives for transport had not changed, there was almost universal recognition that quite substantial shifts in travel behaviour, working practices, shopping and the nature of business and leisure markets had occurred, and that therefore the fundamental logics and norms of transport planning had been substantially challenged at the very least. This recognition spanned many journey purposes: "A lot of business trips are dead" (W1-04); "Generally speaking, we can be sure that the 9–5 will never be the same again" (W2-07); "We all see offices as being something different now… the 3 day week" (W2-10); "(COVID) hastened the decentralisation of public sector jobs away from London" (W4-07); "Some things are becoming more hybridised, for example healthcare provision – that is not going to stop" (W4-16). Retailers "were maybe holding onto the possibility that they could somehow compete against online retail" (W4-13) but this has now largely gone.

It was in response to these questions that we heard some of the most insightful commentary about the problematic nature of discerning what can really be defined as 'normal' for the transport sector, and therefore that the 'normal' that some interests were advocating getting 'back to' was itself much more dynamic (and problematic) than many voices were projecting. For example, one of our respondents pointed to the "danger of thinking it's exactly the same kind of traffic we had before" (W4-15) because even if the overall quantum of vehicle miles is similar to pre-pandemic levels, trends in weekday versus weekend travel, the balance of business versus leisure and peak hour versus off-peak hours

within this headline metric all changed substantially. Many participants described what happened during the pandemic as amplifying trends that were pre-existing but not widely recognised or understood: "COVID has accelerated a set of changes that would have taken years or even decades to happen into a matter of months" (W2-07). One participant suggested that teleworking had "always been in our plans but we maybe never really believed it" (W2-02).

Having presented some of the contrasts and conflicts between stability and change which revealed themselves as the pandemic unfolded, we now turn to some reflection on what this tells us about the politics and power underpinning narratives of 'back to normal'.

## 5. Discussion

### 5.1. Research implications

As we set out in the literature review, political institutions and their elected representatives generally prefer stability in policy plans and narratives, and seek to manage reactions to exogenous shocks such that those policy shifts that are required to manage them are incremental in nature. In addition, the literature confirms that transport agencies and governance institutions are largely organised by mode with a tendency to 'siloed' behaviour, forming one element of larger socio-technical systems that are slow to change. Overall, our findings show that the policy system struggled to even prepare for the possibility of shaping a path-changing exit from the pandemic by implementing more radical policy shifts in pursuit of long held strategic aspirations. Indeed, we were consistently astonished that not one respondent was able to identify a key individual in their organisation whose job it was to watch, think and learn about the impacts of the pandemic in order to help frame potential policy responses in response to our question on this, suggesting a lack of strategic capacity (Glaiser et al., 2019). The extent of hollowing of the sector was laid bare by the need to redeploy resources to frontline concerns, which reduced the strategic capacity to consider change still further.

We concur with Ansell et al. (2023) in their assessment that notions of change and stability are intertwined, rather than polar opposites. Some respondents articulated that stability provided a platform for experimentation rather than frustrating it. However, this was not a consistently held view and the provision of a platform did not mean it was executed in practice. Some respondents set out narratives about how (the potential for) major social change co-existed with business as usual planning during the pandemic with a more on-going model of policy change. However, this was seen as optimistic or was implied to be naïve by more respondents who described the stability of processes, particularly funding and project appraisal, which stifled experimentation. Analysing each of the three different elements of Ansell et al.'s (2023) framework separately helped to more clearly demarcate change and stability in what and how those narratives interacted.

There was widespread recognition from key actors that the pandemic really did present a significant 'moment' to achieve policy repositioning (see also Schmidt et al., 2021). Yet, despite there being an evident desire to see through such changes on the part of many of our interviewees, the wider governance system found it difficult if not impossible to achieve them in practice, because other components of the system worked directly against change. Large parts of the 'system functions' remain unchanged in a broad sense, such as facilitating the movement of people and goods and the need for a blend of modes. This made for powerful arguments to carry on as before. However, this inertia was in the face of clear recognition that the relative importance of different aspects of system provision was fluid given the changing nature of the needs of many travellers as discussed above. Whatever the arguments about the 'purpose' of transport provision, that significant change in policy did not occur reflects the profound inertias resulting from the scale of socio-technical system that the transport sector represents (the institutional infrastructure).

Transport infrastructure and services are built around durable assets and regulatory and fiscal environments designed to operate over time horizons measured in years or decades. The 'systemic inertia' generated by the scale and 'lumpiness' of the key building blocks of the sector is amplified by the weight and complexity of its extant system of regulatory and service delivery institutions, their rules and norms, and the networks in which actors come together in to perform the task of governance (see also Schwanen, 2016). The testimonies of our interviewees underlined the key role of strong technical and professional hegemonies in reproducing the rules and norms within which the sector operated rather than repositioning to capture the potential for change, reflecting the desire for hegemonies to domesticate events (Laclau and Mouffe (1985)). As Glaiser et al. (2019) argue, the strategic capacity to deliver more sustainable outcomes needs to be different and needs to be deliberately developed in institutions and the governing networks built from them.

There were strong formal and informal expectations to 'keep calm and carry on' developing costly and ambitious projects. Indeed, some of these were seen to be much needed good news propositions in an otherwise negative news cycle. So, rather than stopping to consider significant changes in approach to 'lock in' observed changes in travel behaviour (e.g. in home working or more local active travel), such shifts were ignored in case this suggested some sort of 'weakness' in strategic capacity of organisations and/or lack of professional commitment to shared macro policy objectives. The systemic importance of government appraisal and investment rules was crucial, since skilled professional staff developing investment proposals did not want to give up on schemes and think that "the last 3, 4 or 5 years (of their) work is potentially worthless" (W1-17). Equally, in a capital funding environment based on competition between places for central government monies, public authorities did not want to be the first 'over the top' to question previously-held priorities since this might simply mean that available funding was redirected elsewhere.

Such logics also applied to service provision. Large capital investments in fleet or rolling stock, warehousing or depots, planning and staffing all underpin the established business models. The pandemic threatened the viability of long-standing systems of transport provision, and so arguments were strongly advanced that existing activities should be supported (financially) to build back or even 'build back better' (DfT, 2021). The net result has been significantly higher per passenger subsidies, especially for the rail industry, in an environment where service levels, patronage and revenues from fares have not recovered to pre-pandemic levels. With respect to the literature on robust governance responses, we would describe the outcome as an attempt at 'resilient response' – to put things back as close to pre-pandemic levels as possible. Howlett and Ramesh (2023; 29) suggest such a response is characteristic of "standard operating procedures and "silo" policy work" and will ultimately "undermine rather than promote robustness by reducing agility in volatile times".

### 5.2. Practical implications

This paper is based on interviews from key decision makers working in the context of the UK transport policy system and it is important, therefore, to caveat wider practical implications with a recognition that different governance systems elsewhere have different characteristics (Veeneman, 2023). That said, there are many common characteristics of how the COVID-19 pandemic unfolded and the behavioural responses to it that are broadly applicable to many developed countries, with key aspects of the path dependencies of large socio-technical systems shared across national contexts.

The system of transport planning and service operation works, to a large degree, over long timescales. Business cases for new infrastructure are built on decades-long assumptions about travel demand, and public transport operations are altered incrementally in response. Opportunities for path changing outcomes are vanishingly rare. Indeed,

transport's response to the COVID-19 pandemic seems to have created conditions that make it less well prepared for future shocks because by not pro-actively adapting to changing travel market conditions, the sector is delivering less for more. A very tight technical hegemony supports this, which has been engineered over time to make the case for state funding for capital projects and subsidy for services. Indeed, many of our respondents emphasised how the case for new projects was put forward as being just as necessary during the pandemic as beforehand, irrespective of changing policy agendas.

Scenarios for more radically different travel futures that practitioners had discussed but "never really believed in" were realised. Yet, despite this, more radical future pathways were once again marginalised by the system-wide assumption that the priority was to get 'back to normal'. The narrative of 'back to normal' is particularly troubling because most respondents identified the changes as an acceleration of underlying trends. That is to say, change is on-going but under-recognised. To illustrate, in the UK car mileage driven per household fell by 15 % between 2002 and 2019 (DfT, 2025) but there is limited exploration of this. A core practical implication of this narrative of going back to pre-pandemic conditions is that transport policy risks drifting further away from serving the needs of the public, not recognising the changed commute, retail and servicing market for example. If a more robust governance response is to be possible, then greater attention needs to be paid to developing a planning approach which is founded in a more responsive model of social change, capable of integrating of digital, physical proximity and transport connectivity (e.g Lyons et al., 2024). It is not possible for a switch to suddenly be thrown during a crisis to upend planning practices for various technical, practical and epistemological reasons.

We also asked whether the response to the COVID-19 crisis makes transport policy better placed to tackle other aspects of the polycrisis, and to be blunt, it has not. In the UK, instead of promoting measures to reduce travel demand during the oil price spike following the invasion of Ukraine in 2022, a reduction in fuel duty was introduced (the opposite of what happened in the 1970 s). This suggests a lack of policy recognition of the potential for behaviour change, or a reticence to invoke travelling less because of the negative associations of this and wider 'behavioural interventions' with the pandemic more generally. We can also see a lack of follow through on policies designed to change travel behaviour for other reasons. For example, in December 2020, during the second lockdowns associated with the emerge of the Alpha COVID-19 variant, Scotland championed a target of a 20 % reduction in vehicle kilometres by 2030 as necessary for meeting its climate change obligations (SG, 2020). However, this target will now be dropped as no "realistic" pathway to achieving it has been put in place (Hyslop, 2025).

More broadly, what happened to travel behaviour, business practices, land-use and property utilisation and transport patterns as a result COVID19 is being treated as a one-off, and not an acceleration of established trends. The presumption that COVID was a discrete exogenous shock rather than a lens revealing the true extent of ongoing dynamic change in transport and mobility means that the sector has in fact made itself less robust to future shocks, with a more limited scope to change than is desirable given the policy environment facing us. It is possible that more agile state responses have happened elsewhere, but we reflect on Neog et al. (2025) finding that in the US, public transit agencies decided to focus back on their core markets following the pandemic.

Our interviews also revealed the sheer extent to which transport concerns were removed from the heart of government, and its main policy making machinery during the pandemic. The limited connectivity between transport and wider cross-sector responses that we observed was in stark contrast to the established rhetoric about the purpose of transport being to serve societal demand for access to health, education, employment and so on. This lack of policy integration, or 'policy distance' from core concerns, is perhaps characteristic of tightly knit specialist technical hegemonies (Antonson and Åkerskog, 2015). But a key finding emerging repeatedly from our respondents' testimonies was that there was more to this than transport operating as a silo; the transport sector was seen to be a 'rule taker' rather than a 'rule maker', largely unable to shape the wider direction of public policy and at the mercy of decisions made elsewhere for different – and sometimes contradictory – reasons. There was no 'ringmaster' able to collate information across the sector and speak or lobby on its behalf. This provided opportunities for producer interests in other sectors such as commercial property and retailing, to make (semi-informed) pronouncements about transport and how it should react to achieve their objectives. Wider calls for 'back to normal' from some government ministers and elements of the business community and in particular the need to get 'back to the office' gave little or no thought to the costs of providing the same kind of transport system to service a set of working patterns which had become – and still remain – much less evenly distributed across the week as many people work flexibly. As one respondent put it to us, "nobody ever thinks about transport. Apart from transport planners, who don't think about anything else" (W4-01). Looking ahead, rather than seeing transport as a sector whose role is largely to respond to public policy concerns elsewhere, a stronger case needs to be made that it is part of a whole range of other Governmental departmental missions. This remains a difficult puzzle to resolve given the strong institutional siloes, histories of the organisation of transport in Government as either its own entity or as a subset of a Ministry of Public Works and ours is not the first such call (Stead, 2008).

## 6. Conclusions

Our longitudinal interview process with senior leaders across the UK transport system during the COVID-19 pandemic provided an unprecedented opportunity to observe the thoughts, actions and responses of key organisations in a mature governance system with the aim of better understanding what the real scope for radical policy changes beyond the incremental might be. We sought to build an account of how and why decisions emerged so that we can learn from the experiences recorded and think differently about how to approach future crises. Our dataset is unique but it was also collected in the particular context of the UK, and as such it invites further (comparative) work to explore how the pandemic has changed policy making and practice in different institutional settings and national political cultures. More generally, we further underline the importance, yet dearth, of studies of the nature of the institutional response relative to the behavioural response or the specific temporary policy interventions introduced during COVID-19. This shortcoming remains characteristic of wider transport research (Marsden and Reardon, 2017).

Our research demonstrates that in many important ways, the UK transport sector has emerged from COVID-19 in a worse position than before in terms of its capacity to tackle longstanding policy challenges and achieve the non-incremental shifts required to address the critical problems it faces. The loss of public transport patronage has raised service subsidy requirements, has already resulted in service cuts and generated increasing uncertainty about whether current reduced service provision is sustainable (Financial Times, 2023). Ansell et al. (2023: 4) describe robust governance as being "able to continue providing public value in the face of variable, inconsistent, unexpected, or unpredictable events and demands". If we consider public value to reside in the long run goals of public policy as well as the short-run emergency response, then transport has undoubtedly become less robust. COVID-19 has not been a path breaking moment.

The 'allure of normal' as a narrative seems an almost unavoidable siren's call given the embedded institutions, infrastructures and systems of provision, all reinforced by a technical hegemony that is dominated by carefully managed and repetitive planning processes with long histories. The 'allure of normal' is also perhaps understandable in policy terms given the economic and social scarring that COVID-19 caused. Certainly, the advocates for 'back to normal' (stability) were able to

express the power they held within the policy system to achieve their desired outcome in practice, pushing back against those advocating to seize the opportunity for more radical change.

If crises are revealing of the potential for policy change, but limited as moments for enacting policy change, then what? The answer may lie in moving beyond the false dichotomy of change and stability. The behaviour changes observed were already evident but 'accelerated'. The policy actions or infrastructure changes which were most easily enacted were already largely developed. Change was, it could be argued, already part of the everyday, albeit substantially under-recognised. Perhaps then, it is essential to make the case for a more radical rethink of transport policy, planning and practice. A rethink which looks for and adapts to change in the everyday so that it is better placed to respond more urgently to the breadth and scale of the challenges it faces and, better equipped to take a more adaptive response in future crises.

## CRediT authorship contribution statement

**Iain Docherty:** Writing – review & editing, Writing – original draft, Validation, Project administration, Methodology, Investigation, Funding acquisition, Formal analysis, Data curation, Conceptualization. **Greg Marsden:** Writing – review & editing, Writing – original draft, Validation, Project administration, Methodology, Investigation, Funding acquisition, Formal analysis, Data curation, Conceptualization.

## Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

## Acknowledgements

This research was funded through a combination of personal research time from the University of Leeds and University of Stirling as well as from three UKRI research grants: Centre for Research on Energy Demand Solutions (Grant agreement number EP/R035288/1); The DecarboN8 network+ (Grant agreement number EP/S032002/1) and The Productivity Insights Network (Grant agreement number ES/R007810/1).

## Data availability

Data is available at https://doi.org/10.5518/1562.

## References

Ansell, C., Sørensen, E., Torfing, J., 2023. Public administration and politics meet turbulence: The search for robust governance responses. Public Admin., 101, 3–22. https://doi.org/10.1111/padm.12874.

Antonson, H., Åkerskog, A., 2015. This is what we did last time Uncertainty over landscape analysis and its procurement in the Swedish road planning process. Land Use Policy 42, 48–57. https://doi.org/10.1016/j.landusepol.2014.07.001.

Arts, J., Hanekamp, T., Linssen, R., Snippe, J., 2016. Benchmarking Integrated Infrastructure Planning Across Europe – Moving Forward to Vital Infrastructure Networks and Urban Regions. Transp. Res. Procedia 14, 303–312. https://doi.org/10.1016/j.trpro.2016.05.024.

Baumgartner, F.R., Jones, B.D., Mortnesen, P.B., 2018. Punctuated Equilibrium Theory: Explaining Stability and Change in Public Policy Decision-Making. In: Weible, C.M., Sabatier, P.A. (Eds.), Theories of the Policy Process. Taylor and Francis, pp. 55–102.

Bryson, J.M., Crosby, B.C., Bloomberg, L., 2014. Public Value Governance: Moving Beyond Traditional Public Administration and the New Public Management. Public Admin Rev 74, 445–456. https://doi.org/10.1111/puar.12238.

Boyte, H.C., 2011. Constructive Politics as Public Work: Organizing the Literature. Polit. Theory 39 (5), 630–660. https://doi.org/10.1177/0090591711413747.

Brand, C., Anable, J., Ketsopoulou, I., Watson, J., 2020. Road to zero or road to nowhere? Disrupting transport and energy in a zero carbon world. Energy Pol., 139, 111334. https://doi.org/10.1016/j.enpol.2020.111334.

Braun, V., Clarke, V., 2006. Using thematic analysis in psychology. Qual. Res. in Psychol., 3 (2), 77–101. https://doi.org/10.1191/1478088706qp063oa.

Cairney, P., 2019. Understanding Public Policy: Theories and Issues, Vol. 2. Bloomsbury Publishing.

Cass, N., Schwanen, T., Shove, E., 2018. Infrastructures, intersections and societal transformations. Tech. Fore. & Soc. Change 137, 160–167. https://doi.org/10.1016/j.techfore.2018.07.039.

Curtis, C., Low, N., 2012. Institutional Barriers to Sustainable Transport. Taylor and Francis.

Davies, N, Hodgkin, R, Keenan, H., Hoddinott, S. and Dellar, A., 2025. Five years since Covid: four ways government has changed, Institute for Government, London. Retrieved from website https://www.instituteforgovernment.org.uk/comment/five-years-covid Last accessed April 25, 2025.

DfT, 2021. Great British Railways: Williams-Shapps Plan for Rail, Cmnd 423. HMSO, London. Retrieved from website www.gov.uk/government/publications/great-british-railways-williams-shapps-plan-for-rail Last accessed April 25, 2025.

DfT, 2022. National Road Traffic Projections 2022, Department for Transport, London. Retrieved from website https://www.gov.uk/government/publications/national-road-traffic-projections Last accessed April 25, 2025.

DfT, 2025. National Travel Survey Table nts0705, Department for Transport, London, Retrieved from website https://assets.publishing.service.gov.uk/media/66ce119f8e33f28aae7e1f7d/nts0705.ods Last Accessed April 29, 2025.

Filgueiras, M., Amorim, M., Lobo, A., Couto, A., Kern, M. and Ferreira, S., 2024. Adapting to the new normal: Understanding public transport use and willingness-to-pay for social distancing during a pandemic context, J. Urban Mob., 5, 100079, https://doi.org/10.1016/j.urbmob.2024.100079.

Financial Times, 2023. England's train operators brace for further budget cuts, December 28. Retrieved from website https://www.ft.com/content/09ba84ea-e62f-4782-baa4-0562d72cccf3 Last Accessed April 29, 2025.

Fisa, R., Musukuma, M., Sampa, M., Musonda, P., Young, T., 2022. Effects of interventions for preventing road traffic crashes: an overview of systematic reviews. BMC Public Health 22, 513. https://doi.org/10.1186/s12889-021-12253-y.

Fuller, J. and Kerr, W., 2022. The Great Resignation Didn't Start with the Pandemic, Harv. Bus. Rev., March 23. Retrieved from website https://hbr.org/2022/03/the-great-resignation-didnt-start-with-the-pandemic Last Accessed April 29, 2025.

Glaiser, M., te Brömmelstroet, M., Bertolini, L., 2019. Learning to build strategic capacity for transportation policy change: An interdisciplinary exploration. Transportation Research Interdisciplinary Perspectives 1, 100006. https://doi.org/10.1016/j.trip.2019.100006.

Hall, P.A., 1993. Policy paradigms, social learning and the state: The case of economic policy-making in Britain. Comp. Pol., 25 (3), 275–296. https://doi.org/10.2307/422246.

Harris, M., McCue, P., 2022. Pop-Up Cycleways: How a COVID-19 "Policy Window" Changed the Relationship Between Urban Planning, Transport, and Health in Sydney. Australia. J. Am. Plan. Assoc., 89 (2), 240–252. https://doi.org/10.1080/01944363.2022.2061578.

Hirschorn, F., 2021. A multi-level governance response to the Covid-19 crisis in public transport. Transp. Pol., 112, 13–21. https://doi.org/10.1016/j.tranpol.2021.08.007.

Howlett, M., Ramesh, M., 2023. Designing for adaptation: Static and dynamic robustness in policy-making. Public Admin. 101 (1), 23–35. https://doi.org/10.1111/padm.12849.

Hyslop, F., 2025. Evidence to Public Audit Committee, Scottish Parliament, Holyrood, Retrieved from website https://www.youtube.com/watch?v=7nHo5u5I0zM Last Accessed April 25, 2025.

Khreis, H., Sanchez, K.A., Foster, M., Burns, J., Nieuwenhuijsen, M.J., Jaikumar, R., Ramani, T., Zietsman, J., 2023. Urban policy interventions to reduce traffic-related emissions and air pollution: A systematic evidence map. Environ. Int., 172, 107805. https://doi.org/10.1016/j.envint.2023.107805.

Kim, K., 2021. 9/11 Transformation of transportation research. Transportation Research Interdisciplinary Perspectives 12, 100472. https://doi.org/10.1016/j.trip.2021.100472.

Kok, K., Loeber, A., Grin, J., 2021. Politics of complexity: Conceptualizing agency, power and powering in the transitional dynamics of complex adaptive systems. Res. Policy 50 (3). https://doi.org/10.1016/j.respol.2020.104183.

Kontou, E., Murray-Tuite, P., Wernstedt, K., 2017. Duration of Commute Travel Changes in the Aftermath of Hurricane Sandy using Accelerated Failure Time Modeling. *Transp. Res. A* 100, 170–181. https://doi.org/10.1016/j.tra.2017.04.015.

Kotarski, K., 2023. The New Era of Polycrisis and How to Tackle It, Fut. Eur. J., 3. Retrieved from website https://feu-journal.eu/issues/issue-3/introduction-the-new-era-of-polycrisis-and-how-to-tackle-it/ Last Accessed May 01, 2025.

Laclau, E., Mouffe, C., 1985. Hegemony and Socialist Strategy. Verso.

Lawrence, M., Homer-Dixon, T., Janzwood, S., Rockström, J., Renn, O., Donges, J.F., 2024. Global polycrisis: the causal mechanisms of crisis entanglement. Glob. Sus., 7, e6.

Lee, K.-S., Eom, J.K., 2024. Systematic literature review on impacts of Covid-19 pandemic and corresponding measures on mobility. Transportation 51, 1907–1961. https://doi.org/10.1007/s11116-023-10392-2.

Lizana, M., Choudhury, C., Watling, D., 2024. Analysing the impacts of individual-level factors on public transport usage during the Covid-19 pandemic: a comprehensive literature review and meta-analysis. Transp. Rev., 44 (2), 434–460. https://doi.org/10.1080/01441647.2023.2295967.

Low, N., Astle, R., 2009. Path dependence in urban transport: An institutional analysis of irban passenger transport in Melbourne, Australia, 1956-2006. Transp. Pol., 16 (2), 47–58. https://doi.org/10.1016/j.tranpol.2009.02.010.

Lukes, S., 1974. Power: A Radical View. Macmillan.

Lyons, G., Marchau, V., Paddeu, D., Rye, T., Adolphson, M., Attia, M., Bozovic, T., Bylund, J., Calvert, T., Chatterjee, K., Comi, A., Cragg, S., Fancello, G., Lenferink, S., Mladenovič, L., Piras, F., Svensson, T. and Witzell, J., 2024. Triple Access Planning for Uncertain Futures – A Handbook for Practitioners. March, ISBN 978-1-86043-

621-5. Retrieved from website https://uwe-repository.worktribe.com/output/11751967/ Last accessed May 01, 2025.
Marsden, G., 2025. Travel behaviour and disruptions. In: Potoglou, D., Spinney, S. (Eds.), Handbook of Travel Behaviour (pp. 435–456), Edward Elgar. https://www.elgaronline.com/downloadpdf/edcollchap-oa/book/9781839105746/book-part-9781839105746-31.pdf.
Marsden, G., Anable, J., Chatterton, T., Docherty, I., Faulconbridge, J., Murray, L., Roby, H., Shires, J., 2020. Studying disruptive events: Innovations in behaviour, opportunities for lower carbon transport policy? Transp. Pol. 94, 89–101. https://doi.org/10.1016/j.tranpol.2020.04.008.
Marsden, G., Reardon, L., 2017. Questions of governance: rethinking the study of transportation policy. Transp. Res. A 101, 238–251. https://doi.org/10.1016/j.tra.2017.05.008.
Marsden, G., Schwanen, T., 2024. Planning to fail? How science can respond to reduced climate mitigation ambition. npj. Sustain. Mobil. Transp. 1 (2). https://doi.org/10.1038/s44333-024-00002-8.
Martin, C., Kan, H. and Fink, M., 2023. Crisis Preparation in the Age of Long Emergencies, Blavatnik School of Government, Oxford. Retrieved from website https://www.bsg.ox.ac.uk/sites/default/files/2023-03/BSG-Crisis-preparation-age-long-emergencies.pdf Last accessed May 01, 2025.
Mattson, L.G., Janelius, E., 2015. Vulnerability and resilience of transport systems - A discussion of recent research. Transp. Res. A 81, 16–34. https://doi.org/10.1016/j.tra.2015.06.002.
McTigue, C., Rye, T., Monios, J., 2020. Identifying barriers to implementation of local transport policy – Lessons learned from case studies on bus policy implementation in Great Britain. Transp. Pol., 91, 16–25. https://doi.org/10.1016/j.tranpol.2020.03.002.
Neog, D., Shekari, E., Brown, J., 2025. Navigating disruption in public transit: Lessons from the COVID experiences of ten agencies that enjoyed pre-pandemic ridership growth. Transportation Research Interdisciplinary Perspectives 30, 101353. https://doi.org/10.1016/j.trip.2025.101353.
OECD, 2023. PISA 2022 Results (Volume II): Learning During – and From – Disruption, OECD, Paris. Retrieved from website https://www.oecd-ilibrary.org/education/pisa-2022-results-volume-ii_a97db61c-en Last accessed May 01, 2025.
Peralvo, F.C., Vanegas, P.C., Avila-Ordóñez, E., 2022. A systematic review of COVID-19 transport policies and mitigation strategies around the globe. Transportation Research Interdisciplinary Perspectives 15, 100653. https://doi.org/10.1016/j.trip.2022.100653.
Pot, W., Scherpenisse, J., 't Hart, P., 2023. Robust governance for the long term and the heat of the moment: Temporal strategies for coping with dual crises. Public Admin. 101 (1), 221–235.
Przeworski, A., 2005. Democracy as an Equilibrium. Public Choice 123 (3/4), 253–273. https://doi.org/10.1007/s11127-005-7163-4.
Pykett, J., Ball, S., Dingwall, R., Lepenies, R., Sommer, T., Strassheim, H., Wenzel, L., 2023. Ethical moments and institutional expertise in UK Government COVID-19 pandemic policy responses: where, when and how is ethical advice sought? Evidence & Policy 19 (2), 236–255. https://doi.org/10.1332/174426421X16596928051179.
Rajan S, Khunti K, Alwan N, Steves C, MacDermott N, Morsella A, Angulo E, Winkelmann J, Bryndová L, Fronteira I, Gandré C, Or Z, Gerkens S, Sagan A, Simões J, Ricciardi W, de Belvis AG, Silenzi A, Bernal-Delgado E, Estupiñán-Romero F, McKee M. In the wake of the pandemic: Preparing for Long COVID [Internet]. Copenhagen (Denmark): European Observatory on Health Systems and Policies; 2021. PMID: 33877759. Retrieved from website https://pubmed.ncbi.nlm.nih.gov/33877759/ Last Accessed May 01, 2025.
Rhodes, R.A.W., 2007. Understanding Governance: Ten Years On. Organ. Studies 28 (8), 1243–1264. https://doi.org/10.1177/0170840607076586.
Schmidt, K., Sieverding, T., Wallis, H., Matthies, E., 2021. Covid-19 - A window of opportunity for the transition towards sustainable mobility? Transportation Research Interdisciplinary Perspectives 10, 100374. https://doiorg/10.1016/j.trip.2021.100374.
Schwanen, T., 2016. Rethinking resilience as capacity to endure : Automobility and the city. City 20 (1), 152–160. https://doi.org/10.1080/13604813.2015.1125718.
SG, 2020. Securing a green recovery on a path to net zero: climate change plan 2018-2032 - update, Scottish Government, https://www.gov.scot/publications/securing-green-recovery-path-net-zero-update-climate-change-plan-20182032/ Last Accessed 25/04/25.
Sørensen, C.H., Isaksson, K., Macmillen, J., Åkerman, J. and Kressler, F., 2014. Strategies to manage barriers in policy formation and implementation of road pricing packages, Transp. Res. A, 60, 40-52, https://doi.org/10.1016/j.tra.2013.10.013.
Stead, D., 2008. Institutional aspects of integrating transport, environment and health policies. Transp. Pol., 15 (3), 139–148. https://doi.org/10.1016/j.tranpol.2007.12.001.
Stead, D., Reardon, L., 2025. Understanding transport challenges through the lens of wicked problems: recognising the 'non-rational' in transport policymaking. In: Perl, A., Ray, R.S., Reardon, L. (Eds.), Handbook of Transportation and Public Policy. Edward Elgar, pp. 32–46.
Suri, H., 2011. Purposeful sampling in qualitative research synthesis. Qual. Res. J., 11 (2), 63–75. https://doi.org/10.3316/QRJ1102063.
Torfing, J., 2009. Rethinking path dependence in public policy research. Crit. Pol. Studies 3 (1), 70–83. https://doi.org/10.1080/19460170903158149.
Thompson, J., 2022. Why Has the UK Spending on Rail Increased? A Discourse Analysis. PhD thesis, University of Leeds. Retrieved from website https://etheses.whiterose.ac.uk/id/eprint/31826/ Last accessed May 01, 2025.
UITP, 2023. What does 'new normal mobility' look like? June, Knowledge Brief, Retrieved from website https://cms.uitp.org/wp/wp-content/uploads/2023/06/Knowledge-Brief-NewNormal-JUN23.pdf, Last accessed April 29, 2025.
Urry, J., 2004. The 'system' of automobility. Theory Cult. & Soc., 21 (4–5), 25–39. https://doi.org/10.1177/0263276404046059.
van Exel, N., Rietveld, P., 2009. When strike comes to town. anticipated and actual behavioural reactions to a one-day, pre-announced, complete rail strike in the Netherlands. Transp. Res. A 43, 526–535. https://doi.org/10.1016/j.tra.2009.01.003.
Van Wee, B., 2023. The transport system and its effects on accessibility, the environment, safety, health and well-being: an introduction. In: van Wee, B., Annema, J.A., Banister, D., Pudae, B. (Eds.), The Transport System and Transport Policy, an Introduction, 2nd edition. Edward Elgar, pp. 3–17.
Veeneman, W., 2023. Governance, COVID responses, and lessons on decision-making un uncertainty, in Zhang, J. and Hayashi, Y. (Eds.) Transportation Amid Pandemics (pp 441-450), Elsevier https://doi.org/10.1016/B978-0-323-99770-6.00019-3.
Wilkinson, E., 2022. NHS England's backlog recovery plan is at serious risk. Watchdog Warns BMJ 379, o2779. https://doi.org/10.1136/bmj.o2779.
Zafri, N.M., Khan, A., Jamal, S., Alam, B.M., 2021. Impacts of the COVID-19 Pandemic on Active Travel Mode Choice in Bangladesh: A Study from the Perspective of Sustainability and New Normal Situation. Sust., 13 (12), 6975. https://doi.org/10.3390/su13126975.
Zhu, S. and Levinson, D.M, 2010, A Review of Research on Planned and Unplanned Disruptions to Transportation Networks, 89th Annual Transportation Research Board Meeting, Washington D.C. Retrieved from website https://www.researchgate.net/publication/5198211_A_Review_of_Research_on_Planned_and_Unplanned_Disruptions_to_Transportation_Networks Last accessed May 01, 2025.