

Low Traffic Neighbourhoods and the Paradox of UK Government Control of the Active Travel Agenda

Geoffrey Dudley, David Banister and Tim Schwanen

Abstract

Low traffic neighbourhoods (LTNs) are designed to remove motorised traffic from residential streets, while leaving them permeable to pedestrians and cyclists, and they have become a popular means to promote active travel. During the recent pandemic the Government introduced the Active Travel Fund in England to facilitate the rapid implementation of LTNs, but this also resulted in a powerful top-down control element. This in turn has resulted in a paradox where funding is contingent on certain conditions being met, but insufficient and changing guidance has been given to the local authorities charged with implementation. This paper outlines this highly unpredictable process, the controversies, and the uncertain implementation through the development of the LTN process in England and the experience of Oxford, where many of the issues are currently being confronted.

Keywords: LTNs, active travel, central-local tensions, Oxford

Introduction

Low traffic neighbourhoods (LTNs) are a deceptively simple concept that over the past few years, and particularly since the 2020 Covid-19 pandemic, have aroused huge controversies in cities and towns around the UK. In doing so, they have highlighted the Government's determination to impose a strong top-down supervisory role on the funding and implementation of active travel schemes (including cycling and walking) at local levels across England. As Richardson has concluded, over the past forty years, a UK policy style has emerged that is more impositional, less consensual, and often quite frenetic (1).

LTNs are designed to remove through traffic from residential streets, often through modal filters, such as bollards, planters, or cameras, while leaving streets permeable to pedestrians and cyclists (2). Vehicle access is retained for those living within an LTN, but the overall aim is to discourage rat-running, while enhancing the environmental quality and community benefits of the LTN itself. These include health and safety benefits, as well as quieter streets and a greater sense of community. Critics of LTNs argue that they divert traffic on to neighbouring roads, with the residents of these areas suffering increased congestion and pollution. It is also alleged that LTNs are often placed in wealthier middle-class areas, with traffic often diverted to the poorer and more deprived communities.

However, evidence available suggests that LTNs accelerate the modal shift away from private car use and ownership in London (where many of the LTNs have been implemented) in ways that do not advantage or disadvantage particular socio-economic groups in the city (3). In political terms, LTNs also expose starkly the tensions between vehicle owners who believe that they have the right to use public roads, and proponents of cycling and walking, who argue that active travel becomes

much more attractive. In these situations, a ‘dialogue of the deaf’ can emerge with little communication across the divide.

We argue that there are a series of tensions between central and local government, and within local government, over the ownership, control and implementation of LTNs. This can result in a process best explained by a paradox whereby, even as the centre seeks to impose its will, it fails to provide sufficient guidance and direction to those at the local level who are charged with policy implementation. There is little scope for debate with the local authorities on the practical problems of implementation, or on the lessons to be learnt. Consequently, a frenetic style can seek speedy implementation, but leave local authorities with severe challenges of political leadership, and a greater reliance on their own resources. This paper seeks to examine this paradox in the case of LTNs, and the implications for policy implementation.

The case study of Oxford will be discussed briefly in order to examine both the disconnections that can occur between the central and local levels, and also the difficulties for local authorities in managing LTN implementation processes. The paper is based on data collected from primary and secondary sources, including all LTN coverage in *The Guardian*, the *Financial Times*, and the practitioner journal *Local Transport Today*. In addition, twelve interviews were conducted with stakeholders between March and July 2022, and these interviews form part of the underlying rationale behind the narrative.

The Johnson and Gilligan Alliance in London

To fully understand the policy and implementation processes for LTNs in England, it is important to first examine Boris Johnson’s period as London Mayor, and the priority he gave to active travel policies. As Prime Minister, Boris Johnson was himself one of the major proponents of active travel schemes and LTNs, and in this pursuit he was strongly assisted by his transport adviser, Andrew Gilligan. It is unusual for a Prime Minister to take such a personal interest in transport policy, but Johnson’s partnership with Gilligan goes back to his term (2008-16) as London Mayor, while Gilligan acted as his cycling commissioner (2013-16). The Government’s strong top-down commitment to active travel and LTNs has its roots in this period, and the lessons learned at that time.

The election of Boris Johnson as London Mayor in 2008 marked a major change in transport priorities in the capital. His predecessor as Mayor, Ken Livingstone, had introduced an innovative and politically daring congestion charge in central London in 2003, and then a western extension in 2007. Although Johnson retained the congestion charge in central London, he cancelled the western extension (4). Instead, he sought to combat congestion through the promotion of active travel, particularly cycling. Specifically, he introduced a cycle hire scheme that became widely known colloquially as ‘Boris Bikes,’ and he introduced a number of cycling ‘super’ highways that, in themselves, strengthened the visibility of cycling as an alternative to car use (5). Nevertheless, in taking space previously allocated to motor vehicles, the cycling ‘super’ highways have generated opposition from motoring groups (6).

The appointment of Andrew Gilligan as cycling commissioner in 2013 strengthened politically the commitment to active travel in London. As a journalist, Gilligan is

himself a powerful advocate of cycling, with a political style that favours a strong top-down approach. In addition to ‘Boris Bikes’ and the cycling ‘super’ highways, Johnson and Gilligan needed local schemes that not only promoted the benefits of active travel, but also transformed the appearance and character of suburban neighbourhoods. The flagship policy in this area became the ‘Mini-Holland’ programme of 2014 (so called because of the high rates of active travel in the Netherlands). The programme invited outer London boroughs to bid for a share of £100 million funding to make their streets cycle and pedestrian friendly. The three winning boroughs, Enfield, Kingston, and Waltham Forest, each received around £30 million, with over sixty schemes funded across these three boroughs. Amongst the first schemes to be trialled, and what has become the most notable, was in Walthamstow Village in Waltham Forest, where modal filters were introduced on residential streets to stop rat-running. The wider significance of these Waltham Forest LTNs cannot be over-stated. The political leaders there have become highly successful at ‘selling’ the benefits of their schemes, so that their LTNs have become perceived widely as a template for future development across London and other cities. Nevertheless, the financial resources available to Waltham Forest through the ‘Mini-Holland’ programme allowed them to make associated public realm improvements, and more time has been allowed for the LTNs to gain acceptability with the local population.

The closure of residential streets is not a new idea, and indeed there are alternative models for controlling motor traffic and enhancing the quality of local neighbourhoods. In particular, there is the model of ‘shared space’ pioneered by Dutch traffic engineer Hans Monderman, who in 1968 designed a residential street in the city of Delft where equal priority was given to cars, bicycles, and pedestrians, forcing road users to pay attention to one another (7). Although shared space schemes can be controversial, they are less politically confrontational than LTNs, where the exclusion of through traffic from residential areas provides a major shift towards a culture of traffic free neighbourhoods.

It could be said that the basic shift offered by LTNs was in tune with the top-down policy style adopted by Andrew Gilligan. This is illustrated by an interview he gave in 2018, after leaving office as London’s cycling commissioner. In the interview, Gilligan criticised Johnson’s successor as London Mayor, Sadiq Khan, for what he claimed was a stagnation in cycling infrastructure projects. Gilligan declared that Khan would discover that to get anything done, and not just in terms of cycling, you had to annoy people. He argued that the key condition for any meaningful superhighway scheme to happen was political leadership, which in the end required listening to the majority rather than the minority, and to proceed with the scheme (8). In the event, having set the policy framework and style in London, the Johnson-Gilligan partnership was ready to operate on a national scale once Johnson became Prime Minister in 2019.

Accelerating Top-Down Active Travel Policy Making

In a statement to the House of Commons in February 2020, Prime Minister Boris Johnson announced a five-year funding package of £5 billion, with the intention of overhauling bus and cycle links for every region outside London. This plan included several ‘Mini-Holland’ pilots, including LTNs. This package was meant as a major

statement of investment in two of the Prime Minister's passions, for cycling and buses, but within a few months the onset of the Covid-19 pandemic accelerated events rapidly, and had the effect of bringing LTNs forward as a major policy initiative. The necessities of combating the pandemic placed a premium on social distancing, while as public transport use inevitably decreased steeply, cycling use increased dramatically. In May 2020, the Government published new statutory Network Management Duty Guidance that instructed local authorities to reallocate road space for significantly increased numbers of cyclists and pedestrians. As part of this Guidance, the Government suggested that more side streets could be closed to through traffic to create LTNs. From being part of a handful of 'Mini-Holland' pilots, LTNs had suddenly become a central plank of the Government's strategy for combating the pandemic and promoting active travel. In tangible terms, £2 billion investment in cycling and walking was announced for the next five years (part of the earlier allocation of £5 billion), while a £220 million Emergency Active Travel Fund for England (EATF) would be distributed now to local authorities, in two tranches, to reallocate road space to pedestrians and cyclists.

The necessity of dealing with the pandemic caused the Government to emphasise the need for speed in implementing schemes, but it was the publication in July 2020 of *Gear Change* (9), which set out in more detail the Government's strategy for cycling and walking, together with the top-down approach adopted by Government. Consequently, *Gear Change* emphasised that in order to see the increases in cycling sought by the Government, the quality of cycling infrastructure installed on roads must radically improve. The Government added that it would not fund or part-fund any scheme that did not meet the standards set out in the new design principles published at the same time. A new body, Active Travel England (ATE), would examine all applications for funding and refuse any that were not compliant with the new national standards. ATE would also inspect finished schemes and ask for funds to be returned for any which had not been completed as promised, or which had not started or finished by the stipulated times. ATE would also publish annual reports on highway authorities, grading them on their performance. Overall, the Government's intention was for ATE to perform a similar function to the inspectorate Ofsted in the education sector.

The *Gear Change* report revealed that, although the Government's cycling and walking strategy might ostensibly be in response to the immediate pandemic emergency, this was being perceived as a window of opportunity to push forward long-term investment in active travel, with LTNs as an integral part of this strategy. Government needed to work with the local authorities, but it was determined to impose its will on scheme implementation. For their part, many local authorities were becoming concerned that they were being pressured to introduce controversial LTN schemes rapidly, while at the same time being threatened with losing funding if schemes were not deemed as satisfactory in the eyes of Government.

Matters came to a head in October 2020 when Transport Secretary Grant Shapps wrote a letter to local authority leaders in England. In the letter, Shapps blamed councils for the furore caused over temporary measures to help active travel, such as 'pop-up' cycle lanes and LTNs. For their part, many local authorities complained that the Department for Transport (DfT) had imposed excessive speed on implemented schemes by stipulating that, as a condition for the first £45 million tranche of EATF

funding, councils had to make a start on schemes within four weeks of grant receipt, and complete schemes within eight weeks. In his letter, Shapps claimed that a significant minority of schemes were nowhere near good enough, and that the Government was not prepared to tolerate hastily introduced schemes which would create sweeping changes to communities without consultation. This was despite the Government itself having encouraged councils to introduce EATF schemes using Experimental Traffic Regulation Orders, which do not require prior consultation. The Government was now demanding improved consultation processes, while still pressuring local authorities to introduce schemes within stipulated time frames.

Government was also facing criticism that its *Gear Change* strategy was anti-motorist. Particularly prominent was the campaign group FairFuelUK, which had close links to several Conservative MPs. In attacking the EATF, the founder of FairFuelUK, Howard Cox, claimed that schemes had been overseen by “ill-informed gullible politicians and well paid secure-in-their-jobs civil servants”(10). In the past UK transport policy had been shaped by motoring interests, but now other broader concerns, such as traffic congestion, air quality, climate change, and health problems had become prominent. Pressure groups such as the cycling charity Sustrans, Cycling UK, and the pedestrians group Living Streets, had become more influential, but they were still not instrumental in Government thinking. This changed with the Johnson-Gilligan alliance that gave the active travel agenda a new impetus. The Government was seeking to give active travel new institutional impetus through the creation of Active Travel England, but the price to be paid was a greater top-down approach in enforcing change.

By the time that the second tranche of the EATF was due to be allocated in November 2020, fourteen Tory MPs had signed a letter to Shapps that demanded this funding be abandoned. The letter indicated the degree of disquiet amongst Conservative MPs and the Party generally that measures such as LTNs were proving electorally unpopular, and antagonising motorists. Controversies had been reported from around the country, including London, Kent, Brighton, East and West Sussex, Poole, Reading, Oxford, Hereford, Leicester, Manchester, and Sheffield, and at the local level many Conservative councillors were voicing their opposition to LTNs (11).

However, the Government was not to be deterred, and in November 2020 the DfT published the allocations for the second £175 million tranche of EATF funding, which had now become the Active Travel Fund (ATF). The Government had officially recognised that the funding was primarily for permanent measures, rather than as a response to the pandemic. At the same time, the Government had clearly become concerned about the controversies caused by the schemes and had to strike a careful balancing act of acknowledging the opposition, while pressing ahead with the active travel agenda.

Changing The Rules – Frenetic and Fluid Policy

The Government’s response was to issue yet more statutory Network Management Duty Guidance, which emphasised the importance of consultation. Local authorities would now be required to publish detailed consultation plans, and to show ‘reasonable evidence’ of consultation before schemes could be introduced. These new requirements would be overseen by ATE, with the threat that funding could be

reduced if conditions were not met. At the same time, the Government feared that consultation processes could lead to local authorities abandoning schemes, and in a letter to them Grant Shapps emphasised that there was clear evidence that, for all the controversy they can sometimes cause, ambitious cycling and walking schemes had significant, if quieter, public support.

As an illustration, Shapps revealed that recent surveys by the DfT had indicated 65 per cent of people across England supported reallocating road space to walking and cycling in their local area, and nearly eight out of ten people supported measures to reduce road traffic in their neighbourhood. Consequently, Shapps announced that consultation should include objective tests of public opinion, such as scientific polling, to cut through the noise and passion schemes generate and gather a truly representative picture of local views. He indicated that this type of consultation should engage stakeholders, including local MPs, but it should not be confused with listening only to the loudest voices, or giving any one group a veto. Shapps' approach had shifted from criticising the quality of schemes to emphasising the need for scheme implementation.

Although the Government stressed the need for consultation, the underlying assumption was that the 'scientific polling' would demonstrate a silent majority in favour of such schemes as LTNs. However, there was little or no guidance for a local authority where opposing views became entrenched, and protests against LTNs continued. The local authorities therefore needed to be supported by non-monetary assistance, including – but not limited to – best practice guidance on consultation, monitoring, and evaluation, that covered a broad and meaningful set of key performance indicators and underlying criteria for success. Shapps may have wanted schemes to reflect the views of a 'silent majority,' but the requirement for 'scientific polling' placed one more burden on the expertise and resources of local authorities, while it was not clear where the limits of these consultation processes would lie. Shapps emphasised that funding for schemes should, as far as possible, be committed by the end of the financial year, and delivered as soon as reasonably possible thereafter. Although there was a slight relaxation in the time schedules, local authorities would still be expected to deliver completed schemes in a limited period.

Most schemes continued to be in London, and despite the template provided by the LTNs in boroughs such as Waltham Forest, in other London boroughs the implementation of LTNs continued to cause high controversy. Several local authorities were not prepared to continue with schemes, and in boroughs including Redbridge, Harrow, Wandsworth, Sutton, and Ealing, LTNs were removed in 2021. However, the Government under Boris Johnson remained firmly committed to carrying through its active travel plans. This commitment was illustrated most vividly in the Foreword to the 2021 report *Gear Change: One Year On*, written by Boris Johnson, who emphasised that he supported councils, of all parties, which were trying to promote cycling and bus use. He went on to set out his backing for schemes such as LTNs: 'And if you are going to oppose these schemes, you must tell us what your alternative is, because trying to squeeze more cars and delivery vans on to the same roads and hoping for the best is not going to work. And as the benefits of schemes increase over time, what opposition there is falls further. That is why schemes must be in place long enough for their benefits and disbenefits to be properly evidenced' (12). The Prime Minister's words were given tangible form by another revision of Network

Management Duty Guidance, which made clear the Government's expectation that schemes would remain in place, and needed to be given time to settle in. The Government reiterated its requirement that any proposal to remove a scheme would typically require professional representative polling.

The Johnson-Gilligan alliance, supported by Transport Secretary Grant Shapps, continued to control the active travel agenda, and despite the opposition to LTNs within the Conservative Party, there was no sign that their firm grip on the top-down style was weakening. By the end of 2021, over 150 LTNs had been implemented since the pandemic, and in January 2022 the policy framework was given its new institutional pillar when the supervisory and regulatory body Active Travel England began work, with Chris Boardman, the Olympic cycling gold medallist, and former Greater Manchester transport commissioner, as its first national commissioner.

Nevertheless, local authorities now had to cope with a wide range of regulatory controls in implementing the agenda, with the threat of reductions in funding if conditions were not met. In this context, we will examine briefly the case of the city of Oxford, where LTN implementation illustrates the paradox that, despite an impositional style from the centre, a local authority can choose to go its own way in seeking the means to successfully implement LTNs.

Paradoxes Examined – The Oxford Case

Although central Government may adopt a strong supervisory and regulatory role in framing active travel policies, including LTNs, for policy implementation it is dependent on the local authorities. It is here that major discontinuities can occur between the perspective from the centre, and the actual dynamics of events at the local level. These discontinuities can have two principal aspects:

Firstly, funds available from the centre, such as the ATF, may not be easily synchronised with the policy agendas and time schedules at the local level. For example, a measure such as an LTN may require a longer time period for consultation and implementation than allowed for by a national government funding stream.

Secondly, once an LTN has been implemented, the actual outcomes can be messy and highly unpredictable. There seems to be an implicit assumption on the part of the Government that opposition to LTNs will dissipate over time, and that the benefits will be appreciated through people switching from cars to adopting active travel and public transport. This type of 'traffic evaporation' may occur over time, but cannot be guaranteed, and it may also be the case that views on opposing sides can become entrenched, leaving the local authority in a vulnerable position in further implementation of LTNs.

Each of these two discontinuities is evident in the case of LTN implementation in Oxford. On one level, the university city of Oxford may appear a prime case for the promotion of active travel and LTN implementation, as it has a long-established cycling culture. At the same time, the city centre of Oxford is compact and has been subject to high levels of traffic congestion, with car use relatively high in some suburban neighbourhoods. Oxfordshire County Council is the highway authority, and it has an established commitment to the promotion of active travel. This was

maintained in its 2020 *Local Cycling and Walking Infrastructure Plan*, in which the County Council created a new aim to increase both commuting cycling and all cycling by 50 per cent by 2031. The County Council acknowledged that, to achieve this aim, there would need to be 25,000 new cyclists (13). LTNs were identified as one of the key pillars fundamental to achieving a step change in cycling and walking, and they were seen as the means to remove nearly all the motorised traffic from some of the core radial cycle routes. Significantly, councillors and officers had visited Waltham Forest, and had been highly impressed by what they saw there. The County Council identified Cowley in the East of the city as the first area suitable for LTNs, and three LTNs (Temple Cowley, Florence Park, and Church Cowley) were proposed, covering a total of around 6,000 households. Of these, 34 per cent did not own a car (14).

The Cowley LTNs were planned at around the same time as the EATF, and ATF funds were coming on stream, and appeared natural candidates to take advantage of these funds. In the event, the County Council received a total of around £3.3 million in the first two tranches of these funds. However, when the Government demands for both speedy implementation and statutory consultation processes became clear, the County Council made the decision to fund the Cowley LTNs from their own resources. The Government conditions were not aligned with the objectives and timescales of the local authority, and so in this case the ATF scheme became redundant.

From the time of implementation in March 2021, there was strong resistance to the LTNs, with residents complaining about the lack of signs showing alternative routes to the LTNs, while in some cases drivers took vehicles on the pavements to avoid the bollards and planters at the entrances to LTNs. In other cases, planters and bollards were vandalised, including a planter being burned. A petition was launched opposing the LTNs which collected 2,000 signatures, and in Summer 2021 protest marches were held opposing any further expansion of the LTNs.

Those opposing the LTNs were essentially a loose coalition of motorists, local businesses, taxi operators, delivery drivers, and disability groups. There were of course also those who supported the LTNs, and the improvements in the quality of life provided within them. However, the key point politically was that the opposing sides had become entrenched, with little scope for compromise between them. For example, a consultation that took place during the first six months of the Cowley LTNs trial produced 2,433 responses, of which 63 per cent opposed the LTNs. In this type of consultation, it might have been expected that a greater response would be received from those opposing LTNs, but nevertheless post-implementation events had taken on a life of their own, which made it difficult for the local authority to cope with the dynamics of highly unpredictable events.

In Oxford, the implementation process was further complicated by the degree to which LTNs as an issue crossed party lines. The Cowley LTNs were introduced by a Conservative controlled County Council, but in May 2021 control passed to a coalition of the Labour Party, the Liberal Democrats, and the Green Party. The coalition backed the LTNs and continued implementation, but paradoxically the opposing Conservative group now came out in strong opposition to them. There were also significant splits within Labour. For example, in December 2021 the Labour controlled Oxford City Council called on the County Council to defer plans to

introduce three further LTNs in East Oxford, while in March 2022 the East Oxford Labour MP, Anneliese Dodds, wrote a letter to the County Council stating that, although she supported LTNs in principle, she was particularly concerned about the ways LTNs were being introduced, particularly with regard to the need for further bus prioritisation measures to be put in place before any further roll-out of the LTNs.

Despite the doubts expressed, the County Council went ahead with implementation of the three new East Oxford LTNs (Divinity Road, St Clement's and St Mary's) in May 2022. These LTNs were to run for six months until November, with consultation and a final Cabinet decision in February 2023. This again resulted in a large number of bollards and planters being damaged and opposing sides becoming equally entrenched. For the Cowley LTNs themselves, a decision to make them permanent was made by the County Council in July 2022, with a commitment to undertake further community and stakeholder engagement in order to refine and improve the scheme. For a local authority attempting to comply with the Government's active travel agenda, there were few guidelines for dealing with an issue such as LTNs, which generated such entrenched views and unpredictable dynamics.

Conclusions

Under the Johnson-Gilligan partnership active travel has been propelled up the policy agenda and achieved high political salience. The Covid-19 pandemic provided the window of opportunity, but the Government had a strong commitment to infrastructure investment, with LTNs a key policy tool in this process. From one perspective, the creation of Active Travel England could be seen as an attempt to give active travel an institutional strength within Government that it had previously lacked. After decades of subservience to motoring interests, cycling and walking were given a policy framework that at least offered more long-term hope that their needs and ambitions would not be ignored by Government.

At the same time, the strong top-down regulatory and supervisory style adopted by Government, together with the rapid implementation timescale, and the inconsistent guidance that had been given (and changed) over time, could only intensify tensions with the local authorities, which were responsible for the actual delivery of schemes. The lack of trust on the part of Government that the local authorities were actually capable of achieving these goals produced a framework that left little scope for local discretion. However, every city and town has its own distinctive character, and tight control and micro-management of every scheme cannot be practical or efficient as a long-term strategy.

Particularly in the case of highly controversial issues such as LTNs, there is no magic formula that can ensure successful implementation. Where, as in the case of Oxford, opposing views become entrenched, it can provide a complex test of political leadership to press on with LTN schemes, or to cut losses and cancel them. In these situations, the strict regulatory demands from central Government are unlikely to offer much positive assistance. In fact, the example of the Cowley LTNs illustrates that the Government could achieve its policy objectives despite not funding the schemes. Nevertheless, as the paradox of the impositional style indicates, the more the centre seeks speed and conformity, the higher the risk that it loses touch with the needs at the local level in seeking successful policy implementation.

The departure of Boris Johnson as Prime Minister casts doubt over the future direction of active travel and LTN policy (15). However, as the case of Oxford illustrates, the development of LTNs is likely to continue to be beset by multiple paradoxes across levels of Government. These paradoxes have their origins in long-standing political tensions. Firstly, the strong centralisation of transport policy in England, recently identified by a more confrontational and frenetic style of policy making. Secondly, long-standing tensions at local level revolving around the political acceptability of intervention that directly seeks to reduce car use. These tensions are typically navigated by adopting indirect approaches to policy making that favour enhancing alternatives to the car, and/or nudging ‘consumers’ towards such alternatives. This is in contrast to LTNs, where schemes are confrontational by directly targeting car use itself at the local level. The Government has adopted a particular approach to realise its active travel agenda, but its success is dependent on the ability of local authorities being able to deliver radical transport changes (16).

Acknowledgement

This article forms part of the research project: ‘The Governance of Controversies in the Allocation of Road Space: The Case of Low Traffic Neighbourhoods’ funded by the Rees Jeffreys Road Fund.

Notes

1. J. Richardson, *British Policy-Making and the Need for a Post-Brexit Policy Style*, Chan: Palgrave Pivot, 2018.
2. R. Aldred and A. Goodman, ‘Low Traffic Neighbourhoods, Car Use, and Active Travel: Evidence from the People and Places Survey of Outer London Active Travel Interventions,’ *Transport Findings*, September 2020.
3. N. Bosetti, K. Connelly, C. Harding and D. Rowe, *Street Shift: The Future of Low-Traffic Neighbourhoods*, London: Centre for London, 2022.
4. G. Dudley, ‘Why Do Ideas Succeed and Fail Over Time? The Role of Narratives in Policy Windows and the Case of the London Congestion Charge,’ *Journal of European Public Policy*, Vol. 20, No. 8, 1139-1156, 2013.
5. G. Dudley, D. Banister, and T. Schwanen, ‘Urban Local Authorities and the Delivery of Micromobility Strategies. Obstacles in the Implementation of Bicycle Hire in the UK,’ *Built Environment*, Vol. 47, No. 4, 480-498, 2021.
6. C. Morton, ‘Appraising the Market for Bicycle Sharing Schemes: Perceived Service Quality Satisfaction, and Behavioural Intention in London,’ *Case Studies on Transport Policy*, Vol. 6, No.1, 102-111, 2018.
7. T. Standage, *A Brief History of Motion. From the Wheel to the Car to What Happens Next*, London: Bloomsbury Publishing, 2021.
8. *Cyclist*, 28 July 2019.

9. Department for Transport, *Gear Change*, London: Department for Transport, 2020.
10. *Local Transport Today*, No. 810, 30 October 2020.
11. *Local Transport Today*, No. 811, 13 November 2020.
12. Department for Transport, *Gear Change: One Year On*, London, Department for Transport, 2021.
13. Oxfordshire County Council, *Local Cycling and Walking Infrastructure Plan*, Oxford: Oxfordshire County Council, 2020.
14. P. Lingwood, *Low Traffic Neighbourhoods in Oxford. Experience, Belief, and Quality*, Paper presented to TPM, 2022.
15. See N. Bosetti, *What Impact Did Low Traffic Neighbourhoods Have in London Borough Election Results?* On London website, May 20 2022.
16. For a non-UK example see C. Kyriakidis, I. Chatziioannou, F. Iliadis, A. Nikitas, E. Bakogiannis, 'Evaluating the Public Acceptance of Sustainable Mobility Interventions Responding to Covid-19: The Case of the Great Walk of Athens and the Importance of Citizen Engagement,' *Cities*, 103966, 2022.