cycle safety: make it simple

Why wouldn't you?

Cycling UK's response to the Department for Transport's Cycling and Walking Investment Strategy safety review: call for evidence

we are cycling UK
The cyclists' champion

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CYCLING UK'S RESPONSE TO THE DEPARTMENT FOR TRANSPORT'S CYCLING AND WALKING STRATEGY SAFETY REVIEW: CALL FOR EVIDENCE

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INTRODUCTION

Cycling UK is the national cycling charity. Formed in 1878 and known for much of its history as the Cyclists' Touring Club (or CTC, the national cycling charity), Cycling UK seeks to make cycling a safe and normal activity for day-to-day travel and leisure, for people of all ages, backgrounds and abilities. We promote cycling as a healthy, clean, safe and accessible means of transport and leisure, and seek to overcome the many factors that deter cycle use in the UK, in order to maximise its many benefits for individuals and society as a whole.

Key points

Cycling UK welcomes the opportunity to respond to the call for evidence to inform the Government's Cycling and Walking Investment Strategy (CWIS) Safety Review. We are pleased that the Government is keen to evaluate the range of measures that could enable and encourage more, as well as safer, walking and cycling.

The review was initially prompted by the case of teenage cyclist Charlie Alliston who crashed into pedestrian Kim Briggs while riding a fixed wheel bike which, illegally, lacked a front brake.[1] Her death and Alliston's subsequent prosecution and conviction for 'wanton and furious driving' prompted calls to review the offences and sentencing available for cycling that caused death or serious injury.[2]

However, the Government rightly recognised the need to carry out a wider review[3] that would seek to improve safety for anyone who wishes to cycle, as well as those who might be endangered by the minority who cycle irresponsibly. Following the Government's announcement that it would carry out this wider review, Cycling UK and its allies urged that it should be governed by the following key principles:

- **It should cover walking as well as cycling safety**. Whilst pedestrians and cyclists generally need different infrastructure (cycle facilities that create conflict with pedestrians are bad cycle facilities), there is otherwise a good deal of synergy between the measures needed to improve safety for both groups (e.g. lower speed limits, better-enforced traffic rules). Adopting this approach would also encourage respondents and the wider public to think in terms of cycling *and* walking, rather than cycling *versus* walking.
- **It should aim for 'more', as well as 'safer', cycling and walking**. There is good evidence that cycling and walking both gain from a 'Safety in Numbers' effect: in other words, cycling and walking are safest where levels of walking and cycling are high. We examine the evidence on this, and its policy implications, below.
- **It should be evidence-based as far as possible**. Commonly-held beliefs on cycle safety are not necessarily true!

[1] www.cyclinguk.org/press-release/2017-08-24/charlie-alliston-case.
[2] www.cyclinguk.org/press-release/2017-09-18/cycling-uk-reaction-alliston-sentencing.
[3] www.gov.uk/government/news/government-launches-urgent-review-into-cycle-safety.

We are very pleased to see these points reflected in the Government's 'call for evidence' on cycling and pedestrian safety,[4] linking them to the ambition, aims and targets of the Cycling and Walking Investment Strategy (CWIS).[5] In addition to the Strategy's headline 'ambition' (namely "to make cycling and walking the natural choices for shorter journeys, or as part of a longer journey"), its aims and targets include:

- Doubling cycle use (measured as the estimated total number of cycle stages made each year) from 0.8 billion stages in 2013 to 1.6 billion stages in 2025;
- Increasing walking activity (measured as the total number of walking stages per person per year) to 300 stages per person per year in 2025;
- Increasing the percentage of children aged five to 10 who usually walk to school from 49% in 2014 to 55% in 2025;
- Reducing the rate of cyclists killed or seriously injured on England's roads, measured as the number of fatalities and serious injuries per billion miles cycled.

The benefits of cycling

The economy

- Cycling tackles congestion: according to monitoring data quoted by TfL in November 2017, central London's segregated cycle lanes are moving five times more people per square metre than the main carriageways.[6]
- A study of the cost benefit analysis Copenhagen uses to decide whether to build new cycling infrastructure concluded that cars cost society and private individuals six times more than cycling.[7]
- If cycle use increased from less than 2% of all journeys (current levels) to 10% by 2025, and 25% by 2050 (as recommended by the Parliamentary Cycling Group's 'Get Britain Cycling' report[8]), Cycling UK calculates that the cumulative benefits would be worth £248bn between 2015 and 2050 for England. This would yield annual benefits in 2050 worth £42bn in today's money, mainly because the population would be physically fitter. Less congestion and absenteeism, and improved air quality would also contribute.[9]

For more evidence, see Cycling UK's briefing: 'Cycling and the Economy'.[10] This also covers the economic benefits of cycling-based recreation and tourism in rural areas.

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[4] www.gov.uk/government/consultations/cycling-and-walking-investment-strategy-cwis-safety-review
[5] www.gov.uk/government/publications/cycling-and-walking-investment-strategy
[6] TfL. Answer to a FOI request. 15 November 2017. https://tfl.gov.uk/corporate/transparency/freedom-of-information/foi-request-detail?referenceId=FOI-1235-1718
[7] Gossling, S & Choi, A. *Transport transitions in Copenhagen: Comparing the cost of cars and bicycles*. Published in Ecological Economics. May 2015. www.sciencedirect.com/science/article/pii/S0921800915000907
[8] All Party Parliamentary Cycling Group. *Get Britain Cycling*. April 2013. www.cyclinguk.org/news/get-britain-cycling-report-recommends-%C2%A310-head-year-funding-for-cycling
[9] Lovelace, R and Crawford, F. *The Economic Cycle.* Cycling UK. Jan 2015. https://www.cyclinguk.org/sites/default/files/document/migrated/news/1501_fcrawford-rlovelace_economic-cycle-reformatted.pdf
[10] Downloadable from www.cyclinguk.org/campaigning/views-and-briefings/cycling-and-economy

Health

- People who cycle regularly in mid-adulthood typically enjoy a level of fitness equivalent to someone 10 years younger,[11] and their life expectancy is two years above the average.[12]
- A study of around 73,000 men and nearly 83,700 women in the UK found that mixed public and active transport commuters had significantly lower BMI and body fat than their car-only counterparts.[13]
- Academics have calculated that, in the Netherlands, cycling prevents about 6,500 deaths each year and adds half a year to life expectancy.[14]
- A population-wide study in Copenhagen found that, compared with those who cycled regularly to work, people who did not do so had a 39% higher mortality rate, regardless of whether or not they also took part in other physical activities.[15]
- To quote an assessment of cycling network expansions in European cities: "If all 167 cities achieved a cycling mode share of 24.7% over 10,000 premature deaths could be avoided annually. In European cities, expansions of cycling networks were associated with increases in cycling and estimated to provide health and economic benefits."[16]
- A substantial investigation of the association between active commuting and incident cardiovascular disease, cancer, and all cause mortality, concluded that: "Cycle commuting was associated with a lower risk of CVD, cancer, and all cause mortality."[17]

For more evidence, see Cycling UK's briefings on health and road safety.[18]

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[11] Tuxworth W (et al.) *Health, fitness, physical activity and morbidity of middle aged male factory workers*. British Journal of Industrial Medicine vol 43. pp 733-753,1986.
[12] Paffenbarger R (et al.) *Physical activity, all-cause mortality and longevity of college alumni.* New England Journal of Medicine, vol. 314(10) pp 605-613, 1986 (for abstract see www.ncbi.nlm.nih.gov/pubmed/3945246).
[13] Flint, E; Cummins, S. *Active commuting and obesity in mid-life: cross-sectional, observational evidence from UK Biobank*. March 2016. Published in *The Lancet Diabetes & Endocrinology*.
http://www.thelancet.com/journals/landia/article/PIIS2213-8587(16)00053-X/fulltext
[14] Fishman, Elliot et al. *Dutch Cycling: Quantifying the Health and Related Economic Benefits.* 2015. Published in the American Journal of Public Health. http://ajph.aphapublications.org/doi/abs/10.2105/AJPH.2015.302724
[15] Andersen L et al, *All-cause mortality associated with physical activity during leisure time, work, sports and cycling to work*. Archives of Internal Medicine, 160: 1621-1628, 2000
http://archinte.ama-assn.org/cgi/reprint/160/11/1621.pdf
[16] Mueller, N. *Health impact assessment of cycling network expansions in European cities*. April 2018. Published in Preventative Medicine. Vol 109. Pages 62-70.
https://www.sciencedirect.com/science/article/pii/S0091743517304978#!
[17] Celis-Morales, Carlos A. (et al). *Association between active commuting and incident cardiovascular disease, cancer, and mortality: prospective cohort study*. April 2017. Published in BMJ. https://www.bmj.com/content/357/bmj.j1456
[18] Downloadable from: www.cyclinguk.org/campaigning/views-and-briefings/health-and-cycling &
www.cyclinguk.org/campaigning/views-and-briefings/road-safety-and-cycling-overview

The environment

- The Propensity to Cycle Tool project, funded by the DfT, suggests that if people in England became as likely to cycle as people in the Netherlands (the 'Go Dutch' scenario, which calculates that there would be two million fewer car driving commuters), English authorities could reduce CO2 outputs by over 1,500 tonnes a year on average.[19]
- Cycling UK calculates that the average person making a typical daily commute of four miles each way would save half a tonne of CO2 per year by switching from driving to cycling. This equates to c.6% of their personal carbon footprint.[20]
- Converting as many driving trips as possible to cycling helps reduce the harmful impact of outdoor air pollution and reduces traffic noise, particularly in urban areas.

For more evidence, see Cycling UK's briefings on climate change and air quality.[21]

Promoting education, access to employment and equality of opportunity

- Cycling is a good option for many people who do not or cannot drive, e.g. children, those on lower incomes, older and disabled people. It is a way of keeping mobile, independently.
- Cycling employees are more productive and are absent less often.[22]
- Physical activity improves concentration and learning ability in children and adults alike.

For more evidence, see Cycling UK's briefings 'Cycling to School' and 'Cycle-friendly Employers'.[23]

Quality of life and a healthier natural environment

- Cycling's impact on townscapes, rural landscapes and biodiversity is far less negative than that of motor transport because far less land needs to be allocated for roads and parking.

[19] CEDAR. *England's Cycling Potential*. Feb 2017. www.cedar.iph.cam.ac.uk/wp-content/uploads/2017/02/Evidence-Brief-PCT-special-FINAL2-08.02.17.pdf
[20] Calculated on the basis of 170 gm/km for an average car, around 200 trips per year.
[21] Downloadable from: www.cyclinguk.org/campaigning/views-and-briefings/climate-change www.cyclinguk.org/campaigning/views-and-briefings/air-quality
[22] TNO Quality of Life. *Reduced sickness absence in regular commuter cyclists can save employers 27 million euros*. Feb 2009. http://www.vcl.li/bilder/518.pdf
[23] Downloadable from: www.cyclinguk.org/campaigning/views-and-briefings/cycle-friendly-schools-and-colleges-ctc-views & www.cyclinguk.org/campaigning/views-and-briefings/cycle-friendly-employers-ctc-views

Cycling health and safety

We have noted above the enormous health benefits of cycling, and specifically the finding that regular cycling in mid-adulthood can increase one's average life expectancy by two years.

Statistically, this is a huge public health benefit. Yet a significant majority of people are deterred from gaining those life-years and other benefits of cycling (time-savings, cost-savings, convenience, quality of life) because they think it is 'dangerous'.

It is true that cycling in Britain is a good deal less safe than in some other EU countries:

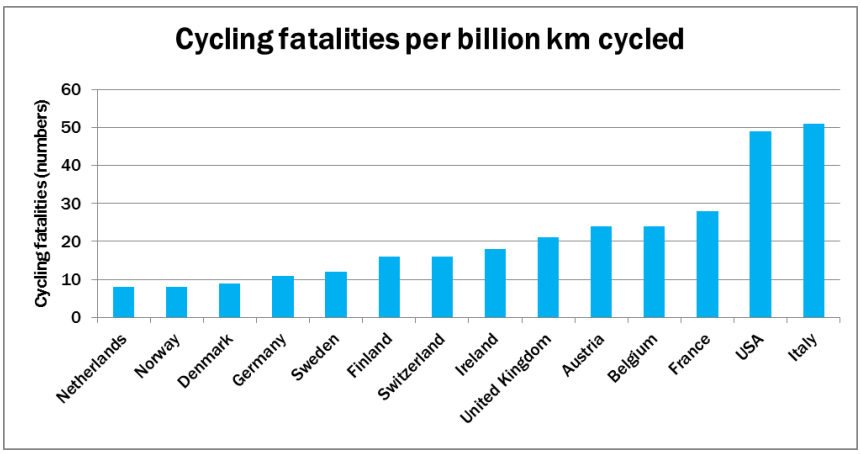

Figure 1: Cycling fatalities (2011-2015) per billion km cycled.
Source: ITF/OECD. *Cycling Safety Summary and Conclusions*. January 2018.

Yet cycling is not an inherently 'dangerous' activity.

For one thing, you are less likely to be killed in a mile of walking in Britain than in a mile of cycling.[24] For another, cyclists, like pedestrians, are most unlikely to impose a significant injury risk to other road users: their rate of involvement in collisions in which other road users are killed or injured is very low indeed. (See 2.7).

Finally, there is clear evidence that the health benefits of cycling are of an order of magnitude greater than the risks involved. A widely-accepted figure for Britain is that the health benefits of cycling outweigh the risks involved, measured in terms of net life-years gained, by around 20:1.[25]

While this health : safety benefit ratio will vary from place to place and from country to country depending on local conditions, the research literature provides other ratios ranging from 13:1 up

[24] DfT. *Reported Road Casualties Great Britain*. Table RAS30070.
[25] Hillman M, *Cycling and the promotion of health.* Policy Studies vol.14 pp49-58, 1993 (not available online).

to 415:1, with one EU-wide review giving an average ratio of 24:1.[26] For more evidence on the health benefits of cycling, see Cycling UK's briefing 'Cycling and Health'.[27]

The upshot of this is that deterring people from cycling is far more 'dangerous' than encouraging and enabling them to cycle, or to cycle more. It follows that measures should not be introduced to improve cycle safety, if they risk reducing cycle use by even a tiny amount; otherwise, it could very easily lead to more lives being shortened (due to increased inactivity) than those measures could possibly save. We consider the implications of this in our section on regulating cyclists, 2.7.

'Safety in Numbers'

This point is reinforced by additional evidence showing that 'more' and 'safer' walking and cycling can – and should – go hand-in-hand. Cycling UK documented the evidence on this, from Britain and around the world, in its 2009 'Safety in Numbers' (SiN) booklet.[28]

There has since been a debate about the nature and the direction of the causal relationship behind the 'Safety in Numbers' phenomenon.[29] We agree with those who say the evidence on this question is unclear, but we strongly suspect the causal relationship is likely to work in both directions:

- On the one hand, cycle use can be expected to increase where cycle safety improves.
- On the other hand, where cycle use increases, this can in turn benefit cycle safety in several ways. If there are more cyclists about, for instance, drivers are likely to become more aware of them. They would also become increasingly likely to cycle themselves, and hence to have a better appreciation of cycle safety from the cyclist's perspective.[30]
- Finally, increased cycle use will strengthen the 'cycling vote', and hence the political will to invest in high-quality cycling provision and to take other measures for pedestrians' and cyclists' safety.

[26] www.locchiodiromolo.it/blog/wp-content/uploads/2012/02/science.pdf. For the sources of other estimates, see pp8-9 of Cycling UK's briefing *Cycling and health*: www.cyclinguk.org/sites/default/files/document/2017/09/health_1c_rv_brf.pdf.
[27] Downloadable from www.cyclinguk.org/campaigning/views-and-briefings/health-and-cycling.
[28] Downloadable from www.cyclinguk.org/campaign/safety-in-numbers.
[29] Bhatia, R and Wier, M. *"Safety in Numbers" re-examined: can we make a valid or practical inferences from available evidence?* January 2011. Published in Accident Analysis Prevention. www.ncbi.nlm.nih.gov/pubmed/21094319.
[30] For instance, an academic study, *Mechanisms underlying cognitive conspicuity in the detection of cyclists by car drivers* (July 2017), found that: "Cyclist-motorists had fewer collisions with cyclists and detected them at a greater distance." www.sciencedirect.com/science/article/pii/S0001457517301343?via%3Dihub. TRL research published in 2003 found that: "Whether a respondent cycled or not, not surprisingly, had an important effect on responses and attitudes. Those who were cyclists were in the favourable position of being able to see things from both the cyclist's and the driver's point of view [...] those drivers who cycled did have greater insight than other drivers did in some aspects. For example, they, not surprisingly, tended to know more about cycling facilities and how they operated. When looking at the scenarios, they could rely more on personal experience and talk about how they had reacted in real life. They could identify with such issues, as they knew that they were more commonplace than other non-cycling drivers thought (such as being 'cut-up' by a motor vehicle)." Basford, L et al, TRL. *Drivers' Perceptions of Cyclists.* 2002. www.trl.co.uk (search for title in 'reports and publications').

We therefore suspect that the 'Safety in Numbers' relationship has the potential to become self-reinforcing, once the political will to achieve more as well as safer cycling is in place and serious steps start being taken. Elvik has suggested that the effect may be non-linear,[31] implying that a 'tipping point' could be reached, after which the effect would become self-sustaining.

Indeed, a recent case-control study of cycling injury risk in London, which explored the impact of cycle volumes, motor vehicle volumes, and road characteristics including speed limits, suggested that: "... the 'Safety in Numbers' effect (more cyclists on route network sections in Inner London), rather than safer road environment characteristics, is responsible for Inner London being safer than Outer London." [32]

It is the case, of course, that there are measures that can be taken to improve cyclists' own safety, not least by making cycle training widely available. This gives people of all ages, backgrounds and abilities the confidence and skills needed to cycle safely in existing traffic conditions and in accordance with the rules of the road (see 2.8).

Given the evidence of cycling's health, economic, environmental and 'Safety in Numbers' benefits, however, it will be clear that the broad thrust of cycle safety policy needs to focus on overcoming the deterrents to cycling – and not adding to them (see 2.7).

The 'Safe systems' approach and 'Vision zero'

Cycling UK's 'Safety in Numbers' booklet identified four major safety deterrents that need to be overcome in order to maximise the health and other benefits of increased cycle use. These are: dangerous roads and junctions, dangerous driving, dangerous speeds and dangerous vehicles.

Hence, in this response to the CWIS Safety Review, we have largely followed the structure of the 'Safe systems' approach.[33]

'Safe systems' derives from the Swedish Government's 'Vision Zero' initiative,[34] which seeks to tackle all possible sources of danger. Its aspiration is to eliminate road casualties altogether.

The 'Safe systems' framework has been adopted by the Department for Transport in its 'Road Safety Statement',[35] and focuses on the following domains:

- Safe roads and junctions
- Safe road users
- Safe speeds
- Safe vehicles

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[31] www.sciencedirect.com/science/article/abs/pii/S0001457509000876
[32] Aldred, R. et al. *Cycling injury risk in London: A case-control study exploring the impact of cycle volumes, motor vehicle volumes, and road characteristics including speed limits*. 2018. Published in Accident Analysis & Prevention. https://www.sciencedirect.com/science/article/pii/S0001457518301076.
[33] www.pacts.org.uk/safe-system.
[34] www.visionzeroinitiative.com.
[35] www.gov.uk/government/publications/road-safety-statement-working-together-to-build-a-safer-road-system.

To this, we have added a fifth heading – 'Safe system management' – to cover various cross-cutting issues such as funding, target-setting, and the need for investigatory mechanisms, transparent information and data to improve our learning from collisions when they do occur, and systematically tackle their causes.

The structure of this response

The 'Safe systems' structure outlined above aligns reasonably, though not exactly, with the six questions posed in the call for evidence:

- Our first chapter, on 'Safe roads and junctions' answers question 1, concerning infrastructure and traffic signs.

- Our second chapter, on 'Safe road users', answers: questions 2 (on traffic laws and rules); 3 (on road user training); 4 (on road user education); and 6 (on influencing public attitudes and awareness).

  We argue in this chapter that 'education' and 'enforcement' must go hand-in-hand. As forty-plus years' experience of tackling drink-driving has shown us: education and awareness campaigns can raise public understanding of why the rules of the road are necessary and important, boosting support for their enforcement; while enforcement ensures that the effect of those awareness campaigns is not undermined by a non-compliant minority being seen to 'get away with it'.

- Our third chapter, on 'Safe Speeds', tackles an issue which is inadequately addressed in the call for evidence, though it also partly relates to questions 1 and 2.

- Our fourth chapter, on 'Safe vehicles', relates to question 6 on safe vehicles and equipment.

- Our fifth chapter, on 'Safe systems management', addresses cross-cutting issues about the strategy as a whole, notably: funding, target-setting, and the data, transparency, accountability and investigatory processes needed to ensure continuous improvement in pedestrian and cycle safety.

Please see the appendix for a list of all our recommendations matched individually against the most relevant DfT questions.

The Safety Review is timely. It comes as the Government works towards the adoption of a second Roads Investment Strategy (RIS2), with the expectation that the Cycling and Walking Investment Strategy will be reviewed alongside it.

This is an opportunity to reconsider the balance of funding between investment in roads, and in walking and cycling, in the context of an expected spending review. The Government needs to consider this question in the light of the increasingly pressing need to tackle:

- Road congestion, and particularly the costs of urban congestion to the economy and international reputation of Britain's towns and cities;
- Physical inactivity, and the mounting human and economic costs of obesity, type-2 diabetes and other inactivity-related conditions;
- Air pollution, following a succession of legal challenges over the need to improve the UK's air quality to meet EU (and WHO) standards;[36]
- Climate change, in the light of reports from the Committee on Climate Change highlighting the continuing gap between the Government's agreed carbon budgets and actual emissions, particularly from transport.[37]

Enabling and encourage more people to walk and cycle would be a hugely cost-effective solution to all the above problems (as indicated by the briefings referenced earlier), as well as improving the quality of life in town and city centres, residential neighbourhoods and rural areas alike. This will, though, necessarily involve tackling the sources of danger and fear that currently prevent us in Britain from maximising these benefits.

We hope the solutions outlined in this response will prove useful to the Government in doing so.

[36] https://www.clientearth.org/government-loses-third-air-pollution-case-judge-rules-air-pollution-plans-unlawful
[37] https://www.theccc.org.uk/publication/2017-report-to-parliament-meeting-carbon-budgets-closing-the-policy-gap/ and https://www.theccc.org.uk/publication/independent-assessment-uks-clean-growth-strategy-ambition-action/

OUR HEADLINE RECOMMENDATIONS

1 SAFE ROADS AND JUNCTIONS 17

1.1 Establish consistent design standards to ensure cycle and pedestrian-friendliness is designed in from the outset into all highway and traffic schemes, new developments and highway maintenance work. 17

1.2 The Government should introduce new rules for junctions, affording greater safety and priority for cyclists and pedestrians at both signalised and unsignalised junctions. 30

2 SAFE ROAD USERS 35

2.1 Cycle safety awareness campaigns must be positive, based on fact and linked to enforcement. 35

2.2 Cycle safety awareness should be integral to the driver training, testing and licensing process 46

2.3 Roads policing should be strengthened, both to deter irresponsible road behaviour and to improve the quality of road crash investigations. 59

2.4 Ensure that other bodies with an enforcement and/or regulation role in road safety play their part effectively. 67

2.5 Carry out a comprehensive review of road traffic offences and penalties. 72

2.6 Revise the Highway Code 87

2.7 The Government should avoid introducing measures in the name of 'cycle safety' that could reduce cycle use. 97

2.8 The Government should strengthen funding for Bikeability so that every child has the chance to qualify at least to Level 2, and preferably to Level 3, free of charge before they leave school/college. 105

3 SAFE SPEEDS 112

3.1 Make 20 mph the default speed limit for most streets in built-up areas, with 30 mph (or higher) limits being the exception that requires signing, not the other way round. 112

4 SAFE VEHICLES 119

4.1 Improve lorry safety, focussing on safe lorry design and equipment, enforcement of rules covering driver, vehicle and fleet safety and demand reduction measures 119

4.2 Ensure that the development of autonomous vehicles, and the legislation governing them, takes account of cycle and pedestrian safety 129

4.3 The Government should support the EC's proposals to update the EU vehicle safety regulations to ensure that they are adopted without delay. 136

5 SAFE SYSTEMS MANAGEMENT 137
5.1 Set targets to reduce road casualties that also incentivise more, as well as safer, walking and cycling. 137
5.2 Rebalance overall transport spending, making a far greater proportion available for cycling, walking and safer streets, including road and path maintenance. 138
5.3 Set up a road collision investigations body, with a remit purely to recommend measures for preventing future collisions. 143
5.4 Improve access to justice for injured pedestrians and cyclists and the support and information provided for road crash victims 146

1 SAFE ROADS AND JUNCTIONS

1.1 Cycle-friendly infrastructure and design standards

Headline recommendation:

1.1 Establish consistent design standards to ensure cycle and pedestrian-friendliness is designed in from the outset into all highway and traffic schemes, new developments and highway maintenance work.

Supporting recommendations:

1.1.1 Road design principles must be re-aligned to focus on movement of people rather than vehicles. In addition, design principles must extend to improving overall health, not just reducing road casualties, along the lines of Transport for London's Healthy Streets approach.
1.1.2 The Government must ensure that all local authorities have the incentives and resources to prepare ambitious long-term plans for cycling and walking infrastructure, using the Local Cycling and Walking Infrastructure Plan (LCWIP) approach.
1.1.3 The Government should update, improve and rationalise cycle design guidance to incorporate the latest thinking in cycling infrastructure. This updated guidance needs to be consistently applied with mechanisms to ensure compliance by local authorities.
1.1.4 Spatial planning policies must be improved to place higher priorities on walking and cycling, with provision for these modes prioritised in future layouts, and tests imposed on developments to ensure easy, safe access to local services.
1.1.5 Major infrastructure projects must be cycle-proofed to build cycling in from the start.
1.1.6 Significantly greater investment is required to ensure the existing road and street network is brought up to the standard required to enable people to cycle in safety and comfort.
1.1.7 Road maintenance must be better resourced and refocused to ensure that all parts of the highway are accessible, safe, and greater priority is given to active travel routes.

General principles: plan for place and movement of people, not vehicles

1.1.1 Road design principles must be re-aligned to focus on movement of people rather than vehicles. Also, design principles must extend to improving overall health, not just reducing road casualties, along the lines of Transport for London's Healthy Streets approach.

Almost 60% of people agree that "it is too dangerous for me to cycle on the roads", more than double the proportion who disagree (25%).[38] This broadly aligns with the percentage who say they never cycle (66%) compared to those who cycle on a weekly or monthly basis (24%).[39] This,

[38] DfT. *Public Attitudes Statistics: Table ATT0313*. 2017. https://www.gov.uk/government/collections/statistics-on-public-attitudes-to-transport
[39] DfT. *National Travel Survey 2016: Table NTS0313*. 2017. https://www.gov.uk/government/statistical-data-sets/nts03-modal-comparisons

amongst much other evidence, suggests that if we are truly to make cycling "a natural choice for shorter journeys", we must understand the concerns of the majority of people who never cycle and say that the roads are too dangerous for cycling.

The historic focus of traffic engineering has resulted in residential and town centre streets being routinely designed to standards more appropriate for trunk roads, thereby encouraging high speeds and the dominance of motor traffic, to the detriment of cycling facilities. The Government should endorse a more holistic approach to road design that considers the place values of streets, movement of all modes, and the health impacts of street design, along the lines of Transport for London's (TfL) 'Healthy Streets' approach.[40]

To unlock the health benefits of increased cycling, local authorities need to acknowledge and overcome the perceived and actual dangers from the existing road network. Safer conditions for cycling need to be introduced through:

- Lower speed limits;
- Measures to filter out through movement of motor vehicles from residential and town-centre streets;
- Dedicated space for cycling on faster or busier main roads; and
- The creation of routes away from the road network.

Network planning for cycling

1.1.2 The Government must ensure that all local authorities have the incentives and resources to prepare ambitious long-term plans for cycling and walking infrastructure, using the Local Cycling and Walking Infrastructure Plan (LCWIP) approach.

Local authorities should actively plan networks for walking and cycling to ensure that these modes truly reach the Government's ambition of being "the natural choice for shorter journeys".[41] They should plan their networks according to the LCWIP Technical Guidance.[42] To make this a successful process, the Government should extend its support to all local authorities who need it, and ensure that the Plans produced are robust and comprehensive.

The LCWIP guidance rightly commends the DfT-funded Propensity to Cycle Tool (PCT) as a means to identify the corridors that are likely to see the biggest increase in cycling, if conditions can be improved. Transport for London (TfL) has created a similar means of identifying route alignments with the greatest potential for increased cycle use, and has used it to prioritise corridors for cycling improvements. The PCT, however, benefits from being open-source software, accessible and customisable by local authorities or advocacy groups.[43] In addition, the forthcoming Cycling

[40] Transport for London. *Healthy Streets for London.* February 2017. http://content.tfl.gov.uk/healthy-streets-for-london.pdf
[41] DfT. *Cycling and Walking Investment Strategy*. 2017.
[42] DfT. Local Cycling and Walking Infrastructure Plans: Technical Guidance for Local Authorities.
[43] Lovelace, R., et al. *The Propensity to Cycle Tool: An open source online system for sustainable transport planning. Journal of Transport and Land Use.* 2017. Vol. 10:1, pp. 505–528. https://www.pct.bike/

Infrastructure Prioritisation Toolkit (CyIPT) will provide another mechanism for local authorities to obtain good data from which to start planning networks and prioritising investment.[44]

Local authorities should also use the PCT, together with other tools and consulting with local road user groups, to develop their LCWIP and help prioritise the schemes that will achieve the most substantial increase in cycling. It should be noted, however, that individual schemes will not achieve the same level of growth as a fully implemented network. Hence the first links to be created in a local cycle network will not initially achieve their full potential cycle use. Cycle use on them can be expected to grow progressively over time, as further links in the network are added. This should be borne in mind in any initial assessments of the effectiveness of those early links.

Planned networks should link potential trip destinations and origins, and aim for a mesh density in urban areas of at least 400m, preferably 250m.[45] This ensures that any urban location is no more than 200m away from the network. Network planning also needs to assess how this planned network intersects with the road network - if users are still exposed to dangerous conditions at any point, the network is severed, and becomes unusable to all but the 25% who are prepared to accept less safe road conditions.

Particular attention must be paid to junctions, where three-quarters of cycle casualties occur, and ensuring high-quality presents the greatest challenge.

The five principles of good cycling design

Good conditions for cycling are those which meet the following five criteria defined in Dutch planning guidance:[46]

- **Safe**: both objectively and subjectively safe from risk of traffic injury, and from a personal security point of view. This requires physical or temporal separation of different modes, reduced speed differential between users, plus good visibility, lighting, surface quality and maintenance.
- **Direct**: many users will dismiss a route that is substantially longer than another. Routes must therefore minimise detour, aiming for no more than 20% over the Euclidean distance (straight-line); and keep deviation to the minimum from the most direct route at junctions.
- **Coherent**: routes should be well-connected with other parts of a dense cycle network; not interrupted or discontinuous, particularly at junctions; and clearly signed.
- **Comfortable**: surface quality must be good, with the need to stop and start kept to a minimum. As far as possible, routes should be flat and any gradients gentle. Additionally, they need to allow for clearance from other users or vehicles where conflict is possible.
- **Attractive**: providing pleasant cycling conditions and making cycling more enjoyable, with minimal exposure to air pollution and traffic noise.

For good cycling conditions, routes should satisfy all five of these principles, not just one or two of them.

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[44] Lovelace R., et al. *The Cycling Infrastructure Prioritisation Toolkit*. https://www.cyipt.bike/

[45] Measuring the 'mesh density' of a cycle network helps assess how closely packed it is with parallel routes of similar quality: a tight mesh density gives more route choice than a loose mesh density.

[46] CROW. *Design manual for bicycle traffic.* 2006. https://www.crow.nl/publicaties/design-manual-for-bicycle-traffic

Auditing the network

✓ Good side-road junctions:

Baldwin Street, Bristol. Adjusted toucan crossing with informal zebras.

Lea Bridge Road, Waltham Forest. 'Copenhagen crossing' gives clear priority over side road.

Clapham Road, Bedford. Parallel zebras around peripheries of calmed roundabout.

X Poor side-road junctions:

Whitecross Road, Hereford. Yield at every junction - even dead-end streets.

The Straight Mile, Hereford. Bell-mouth entry means high speeds; cyclists required to 'Give Way'.

South Street, Chichester. 'End of cycle route' - no crossing of minor road towards railway station

Figure 2: Good and bad crossings of side roads for parallel cycle facilities

The DfT's Route Selection Tool[47] is a useful way of auditing an existing route against the five principles, as well as examining the effect of any planned improvements. This is based on similar processes first adopted in London[48] and Wales.[49] The London Cycle Design Standards also offers tools to undertake more detailed analysis of junctions and the impact these and busy streets have on how accessible the existing network is for cycling.

Although these tools are extremely useful, we know that local authorities often lack the resources to conduct the required analysis. The DfT's LCWIP Technical Support programme will certainly help in this respect but, as it is not comprehensive, authorities will still need additional support to plan their networks and prioritise a programme of improvements.

Clear, up-to-date guidance

1.1.3 The Government should update, improve and rationalise cycle design guidance to incorporate the latest thinking in cycling infrastructure. This updated guidance needs to be consistently applied with mechanisms to ensure compliance by local authorities.

Firstly, Cycling UK is pleased that the Government is taking steps to update Local Transport Note 2/08 Cycling Infrastructure Design.[50]

The confusing plethora of current guidance

Currently, local authorities are working from myriad guidance, including: locally produced advice; Manual for Streets/Manual for Streets 2; LTN 2/08 itself in some cases; or the Interim Advice Note (IAN) 195/16 Cycle traffic and the Strategic Road Network.[51]

This results in:

- The plethora of design standards, some of which are not clearly drafted;
- An inconsistent approach to cycle design from one highway authority to the next;
- Confusion to cyclists and other road users alike; and
- Too much provision that is substandard and, in many cases, downright dangerous.

The need for a single document and a modular approach

We urge the Government to combine all relevant guidance notes into one 'Street Design Manual', and adopt a modular approach in the fashion of the Traffic Signs Manual, i.e. with separate

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[47] DfT. *Route Selection Tool.* 2017 https://www.gov.uk/government/publications/local-cycling-and-walking-infrastructure-plans-technical-guidance-and-tools

[48] Transport for London. *London Cycling Design Standards: Chapter 2 - Tools and techniques*. 2016 http://content.tfl.gov.uk/lcds-chapter2-toolsandtechniques.pdf

[49] Welsh Government. *Design Guidance: Active Travel (Wales) Act 2013.* 2014. https://gov.wales/docs/det/publications/141209-active-travel-design-guidance-en.pdf

[50] https://www.parliament.uk/business/publications/written-questions-answers-statements/written-question/Commons/2018-02-28/130509

[51] Highways England. *Interim Advice Note 195/16: Cycle traffic and the Strategic Road Network.* October 2016. http://www.standardsforhighways.co.uk/ha/standards/ians/pdfs/ian195.pdf

sections released as resources permit. Such a document should include various specific chapters setting out standard designs, street cross-sections and recommended approaches, following the example the Design Guidance for the Active Travel (Wales) Act, and IAN 195/16.

The guidance should also encourage local authorities to use many of the changes brought about in Transport Signs Regulations and General Directions (TSRGD) 2016 and previous guidance, including: low-level signals; parallel zebra crossings; and the use of 'elephant's prints' to mark cycle crossings (such markings should also be given the status of priority crossings).

What the guidance should say and do

Allow for innovation:

The updated guidance should allow for innovation, but set safety-critical minimum standards alongside 'normal' standards that require written justification if not met. Subsequent revisions should incorporate suitably evaluated and successful innovation.

Cover the needs of other road users, planning for disability and the Public Sector Equality Duty:

Whilst most people are deterred from cycling under current conditions in the UK, they disproportionately deter children, older people, women and people with disabilities.[52] These are all groups with 'protected characteristics' under the Equality Act 2010. Hence DfT has an obligation, under the Public Sector Equality Duty (PSED) created by that Act, to seek to overcome the obstacles to increased cycle use among these groups, in carrying out the revision of LTN 2/08, which is now underway.

In addition, the guidance should direct local authorities on the importance of planning for the needs of other road users when designing for cycling. This is because, in some cases, the preferred design for cycle users conflicts with the needs of others, e.g.: pedestrians, wheelchair users, blind and visually impaired pedestrians, buses and their passengers, plus motorcyclists, freight, and private motorists.

It should be noted here, however, that some people use their cycles as a mobility aid. They too can encounter problems, especially if they ride adapted, non-standard machines: for example, barriers to prevent the illegal use of motorcycles on greenway routes are often difficult and sometimes impossible to get past. Guidance must therefore unequivocally state that the installation of such barriers is not recommended, unless circumstances are exceptional.

Explain which type of infrastructure is advisable, and where:

Cycling UK believes that infrastructure for cycling falls into three basic criteria:

a. Physically protected space for cycling along busier roads;
b. Streets designed to filter out motor traffic as much as possible, with low speed limits;
c. Routes entirely away from motor traffic, integrated with the wider cycling network.

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[52] Aldred, R, et al. *Cycling provision separated from motor traffic: a systematic review exploring whether stated preferences vary by gender and age*. 2017. Published in Transport Reviews. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5259802/; Steer Davies Gleave for TfL. *Cycle route choice*. June 2012. http://content.tfl.gov.uk/understanding-cycle-route-choice.pdf and Jones, T et al. *cycle Boom. Design for Lifelong Health and Wellbeing. Summary of Key Findings and Recommendations*. Oxford Brookes University, UK. http://d1qmdf3vop2l07.cloudfront.net/quaint-manatee.cloudvent.net/compressed/5ab7ab985c867240c4f1883d77e0fbb1.pdf

a. Physically protected space

The UK has a very limited history of designing high-quality protected cycle lanes. Instead, we have tended to create pavement cycle tracks, where cyclists and pedestrians are separated at most by a line of white paint, and sometimes not even that. Such facilities generally create conflict between pedestrians and cyclists, while undermining cyclists' safety and priority at junctions, where this is most critical.

More recently, authorities have started to install high-quality protected lanes, typically created by reallocating road-space rather than pavement space, and designed as far as possible to ensure cycle and pedestrian priority at junctions (but see section 1.2).

Various pieces of research have been undertaken, both here and in the USA, to determine what forms of segregation are most suitable under what circumstances.[53] The general principle seems to be that the higher the speeds and volumes of the adjacent motor traffic, the greater the level of physical separation required. For urban 30 mph streets, 'light segregation' is often entirely adequate, providing much of the feeling of protection that enables less confident people to cycle, while occupying less space and costing a fraction of what is required for full kerb segregation (largely because it averts the need to realign drainage).

By contrast, a high level of separation (e.g. a hedge) becomes desirable for anyone cycling alongside a high-speed dual carriageway, especially if facing oncoming lorry traffic at night and/or in poor weather.

There are also pros and cons to different types of 'light segregation'. Low-height solutions, such as 'armadillos' and 'orcas' have proved unpopular with both cyclists and other road users. They provide only a limited sense of protection, while presenting trip hazards to pedestrians and slip hazards to motor-cyclists. Where light segregation is appropriate, therefore, Cycling UK is inclined to favour traffic wands. We hope that engineering firms come up with more visually acceptable designs as this solution become more widely adopted.

As far as existing guidance is concerned, we support that given in Interim Advice Note 195/16 and in the Welsh Government's Design Guidance. Both explain where and when different types of infrastructure should be used for physically segregated cycle infrastructure.

[53] Urban Movement / Phil Jones Associates (for TfL). *International Cycling Infrastructure Best Practice Study*. Dec 2014. http://content.tfl.gov.uk/international-cycling-infrastructure-best-practice-study.pdf; Beard, G. TRL. TfL *Cycle Facility Trials: Alternative Separation Methods for Cycle Lanes*. https://trl.co.uk/media/309316/ppr704_-_alternative_separation_methods_for_cycle_lanes.pdf; Monsere, C. (Portland State University). *Lessons from the Green Lanes: Evaluating protected Bike Lanes in the U.S.* June 2014. https://trec.pdx.edu/research/project/583/Lessons_from_the_Green_Lanes:_Evaluating_Protected_Bike_Lanes_in_the_U.S._

b. Streets designed for low motor traffic / low speeds

In many locations where the road system was laid out in the middle decades of the 20th century, the layout typical of major thoroughfares still persists even in residential areas, with geometry suited to 40 mph speeds. In such places, it is unsurprising that pedestrian and cycle use is so low, and the relative risks of these modes so high.

Roads with 7.3m carriageway widths are particularly problematic for cycling if traffic levels are high. This is because they create individual lane widths within the 'critical' dimension that leads to conflict between on-road cyclists and following motor traffic. No new roads designed for sharing between cyclists and other road users should therefore be built at this width.

A 'default' speed limit of 20 mph should be implemented for the majority of the length of the urban street network, and 40 mph for the majority of the rural single carriageway network (see chapter 3 for safe speeds). In addition to lower speed limits, such streets and lanes should also be designed to limit access to through traffic, whilst maintaining through access by cycle.

Where traffic speeds are not already close to these limits and/or where traffic flows are too high for safe and comfortable cycle use by people of all ages and abilities, local authorities should be empowered either to introduce design and traffic management measures to bring traffic speeds and volumes down to a suitable level, or else to apply higher limits on wider, straighter and more strategic main roads where these are appropriate. These key routes should be provided with physically separate cycle facilities along or beside them (see above), or on nearby parallel corridors (where these are at least as direct convenient, safe and attractive).

c. Routes away from motor traffic

Canal or river paths, shared use routes in parks and open spaces etc., are valuable components of the cycle network. Entirely free of motor traffic, they attract less confident cyclists, or those out riding for recreational purposes. They need to be linked into the wider network of on-road routes to make them fully and conveniently accessible, and of high-quality design.

Road safety vs public health

While better guidance is necessary, it will not be sufficient on its own to overcome the persistent problems of poor and often dangerous cycling conditions in England. Much of this, Cycling UK believes, is due to the asymmetric approach transport policy takes towards public health and road safety for pedestrians and cyclists. In some cases, this continues to deliver perverse results.

Although Road Safety Audit (RSA) can provide a useful check on the street design process, and urges careful consideration of pedestrians and cyclists, the results can sometimes inhibit designs that will provide better for them. In other words, the upshot may neither encourage active travel, nor reduce motorised traffic volumes. Indeed, RSAs can all too often frustrate rather than support these aims.

For instance, staggered pedestrian crossings with guard-railing may corral some pedestrians, but if the railing ignores the desire line, some users will simply ignore the formal crossing entirely, choosing to dash for a gap in traffic. Similarly, the proliferation of 'Cyclists dismount' or 'End of

route' signs, often installed as a means of fulfilling an RSA, will lead to bafflement, frustration and a reluctance to use the route by many cyclists.

RSAs, however, are by no means the only reasons why bad designs continue to be constructed. Other causes may lie in: the lack of experience or skills of the engineer; an unwillingness to reallocate, or acquire, the requisite space; and a reluctance to prioritise active travel infrastructure over motor traffic (these are described more fully below).

The problem of low-quality cycling infrastructure

Before analysing how and why low-quality cycling infrastructure is built, it is worth noting the problems it causes.

Reallocating road-space for a cycle lane or track that proves impractical or unsafe to use is likely to be highly damaging: not only is it a direct waste of resources and jeopardises future investment, but it also risks compounding oppositional attitudes between road users.

This conflict lies in two opposing 'logics' of drivers and cyclists, identified by Christmas et al, (2010).

The 'driver logic' is simplified thus:

a. Bikes are anomalous and really do not belong on the road;
b. They should be given somewhere else to go;
c. Having been given somewhere else, they should not then be on the road;
d. Nothing should be taken away from drivers in the process."[54]

In direct conflict with this lies a 'cyclist logic', which argues that cyclists should not be forced to use cycle facilities. These two opposed views will continue to co-exist and be mutually reinforced by provision of poor infrastructure. At its worst, this can lead to open hostility between road users, as documented in countless incidents captured on bike or helmet-mounted cameras.

Why does bad design persist?

Quality of design is hampered by various factors. These include:

- the absence of political leadership to endorse challenging schemes;
- inadequate funding to achieve the preferred solution;
- lack of good design skills or execution; and
- perverse results from road safety audits.

'Bad' design, is not inevitable, however. The stages of production of infrastructure, and how this can go from good to bad, is described below in figure 3. At each stage, a weakness in the chain can mean that poor quality infrastructure will still result.

[54] Christmas, S. et al. *Cycling, Safety and Sharing the Road: Qualitative Research with Cyclists and Other Road Users.* 2010. Road Safety Web Publication No. 17. DfT. P 60
http://webarchive.nationalarchives.gov.uk/20121105052525/http://assets.dft.gov.uk/publications/safety-cycling-and-sharing-the-road-qualitative-research-with-cyclists-and-other-road-users/rswp17.pdf

The production of 'good' and 'bad' cycling infrastructure

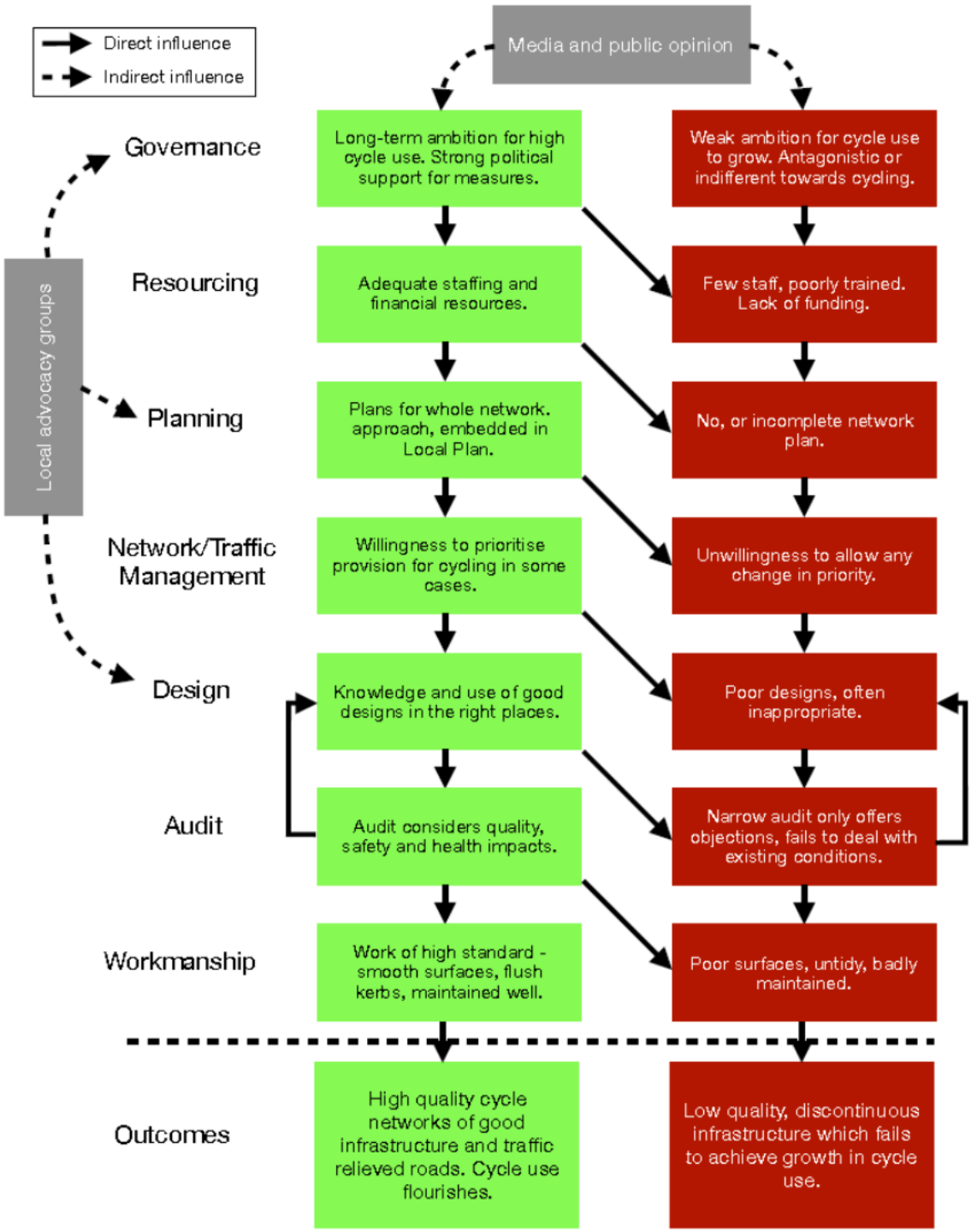

Figure 3: A simplified model of the production of good or poor-quality cycling infrastructure

The flowcharts above show the steps required for good cycle networks to develop. At each stage, the production of good quality infrastructure can be undermined: even with political support, a lack of resourcing will undermine quality. Even with a willingness to prioritise cycling, poor design can undermine quality, etc.

Even with strong ambition, a lack of resources - either of well-trained staff or funding - could still lead to poor network planning, or compromised designs. Conversely, once an element of the chain is missing, it is harder to achieve a good outcome. Without agreement to reallocate road-space or alter junction capacity, routes will inevitably be lower in quality, even if the network plan is comprehensive and well thought-out.

In short, ensuring any national standards are consistently applied will also require:

- political will and commitment at the local level;
- consistent and reliable funding;
- well-trained staff;
- good stakeholder engagement; and
- good audit and quality control processes.

Nonetheless, it will be an important step to get the new guidelines issued. Cycling UK then stands ready to work with other members of the Department's Cycle Proofing Working Group to ensure the rest of the package is delivered.

Given the need to ensure maximum value for cycling from the limited funding available, it is also vital that the new guidance is consistently applied in designing and planning all highway traffic schemes (i.e. not just in those described as cycling and walking schemes), and indeed in new developments and planned highway maintenance works. We examine these issues in the next two sections.

Spatial planning for cycling networks

1.1.4 Spatial planning policies must be improved to place higher priorities on walking and cycling, with provision for these modes prioritised in future layouts, and tests imposed on developments to ensure easy, safe access to local services.

Further steps are required to improve spatial planning practice to ensure that cycling and walking can truly meet their potential, especially in new developments.

While the Manual for Streets is now widely followed when planning networks within new developments, the location and the lack of links to other towns, settlements or destinations nearby are often a significant barrier to walking and cycling becoming the norm. Too often, new developments are planned in the expectation that their residents, workers or visitors will be travelling principally by car, with poor connections for non-motorised travel beyond the development's boundary.

Better planning of appropriate long-term networks of cycling and walking infrastructure using the LCWIP process should be included in the local spatial planning process so that new developments are linked - and contribute - to a good quality cycling and walking network.

Cycle-proofing major projects

1.1.5 Major infrastructure projects must be cycle-proofed to build cycling in from the start.

Planning authorities - both national and local - should also ensure that new infrastructure schemes properly incorporate good design and LCWIPs into their project plans.

While Highways England's planning has progressed in recent years to include some provision for cycling, plus good guidance for future schemes, other problems remain. For instance, major rail projects such as HS2 are still advancing without adequate provision for walking and cycling. This means that infrastructure designed for decades of use is building in severance between communities, and will lock many areas into car-dependency.

Opportunities should also be taken to provide cycle infrastructure in the context of non-transport infrastructure projects, e.g. flood prevention schemes, which have received significant funding in recent years.

Resources to retro-fit, not just for new build

1.1.6 Significantly greater investment is required to ensure the existing road and street network is brought up to the standard required to enable people to cycle in safety and comfort.

Whilst changes to road traffic regulations and design solutions to enhance conditions for walking and cycling have advanced in recent years, several problems are still preventing more widespread use. Chief amongst them is the lack of resources to retro-fit solutions onto the existing road network.

Much of the capital funding available to local authorities, either through LEPs (i.e. the Local Growth Fund) or through direct government support from other sources (such as the Housing Infrastructure Fund), is designed to facilitate new commercial or residential developments. These developments are often urban extensions or clustered around relief roads, mostly located far from existing services, thereby reducing the opportunities for cycling (or walking).

Schemes which make (and have made) the most positive difference are those focussing on congested corridors in existing dense urban areas, where trip distances are shorter, but cycling (and to some extent walking) has been supressed in the past by poor infrastructure and heavy traffic. The introduction of high quality cycling schemes, such as those now seen in London, Manchester and other cycling cities, has shown that substantial increases in cycle use can be generated if the quality of infrastructure is high enough.

Funding streams such as the Transforming Cities Fund should be rolled out more widely and invested in smaller scale improvements, i.e. particularly walking and cycling corridors on key radials and/or neighbourhood-wide packages of small interventions. To maximise the benefits of schemes like this, it makes sense to accompany them with effective behaviour change programmes.

We also believe that more of the proposed National Roads Fund must be allocated to retro-fit cycling schemes onto the proposed Major Road Network.

Highway maintenance for cyclists

1.1.7 Road maintenance must be better resourced and refocused to ensure that all parts of the highway are accessible, safe, and greater priority is given to active travel routes.

Whilst every road user suffers from poor road surfaces, cyclists face a disproportionate risk of injury or death. Over the last ten years, 22 cyclists have been killed in crashes in part attributed to poor road surfaces, and a further 368 were reported as seriously injured.[55] It is probable, however, that these statistics - capturing only those reported to the police - greatly underestimate the total number of cyclists affected by poor road surfaces, as hospital data reveal.

64% of cyclists in England admitted to hospital in 2016/17 involved no other vehicle, and one study, conducted in Bristol, found that a quarter of incidents were due to slippery road surfaces caused by ice, while a further 3% were directly attributable to potholes.[56]

By extrapolating these figures to English hospital admissions of cyclists, we estimate that approximately 4,500 serious injuries may be caused by icy roads, and a further 500 from surface defects - 13 times more than the number of serious injuries recorded by the police. By comparison, 2,637 cyclists were admitted to hospital after crashes involving cars in 2016/17.[57]

Highway maintenance regimes thus need to pay particular regard to cyclists' needs. To do this:

- Inspection frequencies and response levels should be higher on the most important parts of the cycle network, even where these routes are minor as far as motor vehicles are concerned, e.g. quiet lanes or back streets.
- Criteria for intervention should also deal with the specific risks to cyclists, such as location in the road (i.e. the 50cms - 1.5m from the kerb where cyclists typically ride), and the shape of the fault (for instance, longitudinal cracks or sunken trench reinstatements may not reach the depth criteria, but can still represent a considerable risk for cyclists).

The existence of a fully planned cycle network, such as an LCWIP, not only provides the basis for prioritising inspections, but also the opportunity to integrate maintenance work with plans to improve cycling. Thus, when carrying out resurfacing or any other substantial change to the road alignment, any improvements recommended in the LCWIP should be implemented at the same time.

[55] HC WQ&A. *Cycling: Accidents: Written question - 129317*. 22 February 2018 https://www.parliament.uk/business/publications/written-questions-answers-statements/written-question/Commons/2018-02-22/129317/

[56] Benington R. *Hospital admissions related to cycling.* 2016. https://www.bristol.gov.uk/documents/20182/33640/Hospital+admissions+related+to+cycling+presentation/58574eb2-96f9-49c2-a142-0680f375dee1

[57] NHS. *Hospital Admitted Patient Care Activity, 2016-17: External Causes.* October 2017. https://digital.nhs.uk/data-and-information/publications/statistical/hospital-admitted-patient-care-activity/2016-17

1.2 New rules for junctions

Headline recommendation:

1.2 The Government should introduce new rules for junctions, affording greater safety and priority for cyclists and pedestrians at both signalised and unsignalised junctions.

Supporting recommendations:

1.2.1 The Government must resolve the conflicts in transport policy, guidance and practice that currently undermine the ubiquitous implementation of the 'hierarchy of users' and, in doing so, compromise safe road conditions for pedestrians and cyclists.

1.2.2 The Government must implement the suggestions set out in 'Turning the Corner' to further simplify pedestrian and cycle crossings - both signalled and non-signalled - to provide better, continuous walking and cycling networks in local areas. Clear, unambiguous priority for pedestrians and cyclists over turning traffic should be enforced through alterations both to The Highway Code and legislation.

Junction priority and the hierarchy of users: not followed in practice

1.2.1 The Government must resolve the conflicts in transport policy, guidance and practice that currently undermine the ubiquitous implementation of the 'hierarchy of users' and, in doing so, compromise safe road conditions for pedestrians and cyclists.

Whereas Manual for Streets/Manual for Streets 2 suggests that there should be a hierarchy of users, with cyclists and pedestrians given priority, the Highway Code and accompanying legislation creates an expectation that all modes have an equal responsibility to 'look out' for each other in all circumstances. Such an equivalence cannot rationally exist given that pedestrians and cyclists are both far more vulnerable, and their ability to cause harm to others is negligible when compared to people inside vehicles.

One characteristic of bad design is a lack of priority for pedestrians and cyclists at junctions and crossings on all but the quietest of streets. Even though Manual for Streets, Manual for Streets 2, and other documents nominally respect a 'hierarchy of users' in which disabled users, pedestrians and cyclists are given priority, in reality the design (both geometric and aesthetic) of most roads reverses this priority, with most footways (and nearly all cycleways) designed with the clear expectation that their users yield to motor traffic on roads.

National and local planning policy must ensure that, on most urban streets, the layout should prioritise foot or cycle traffic. In practice, this means adopting continuous footways and cycleways as standard designs on all distributor routes, with filtered permeability to guarantee advantages to those on foot or bikes.

Furthermore, although such a hierarchy is repeatedly exhorted in design documents, there is little backing for it in legal frameworks. This has proven particularly problematic to designers seeking to

introduce 'informal' or 'enhanced' streets (using the terminology suggested by CIHT to replace the controversial and confusing term 'shared space').[58] Blind and visually impaired people are often concerned that the system of 'negotiated priority' makes navigating some layouts and junctions confusing and challenging.

Stronger, clearer legal support for the hierarchy of users needs to be implemented to give planners, designers, engineers and road safety auditors the confidence to agree to schemes that are bolder in giving priority to cycling. This could be achieved, for instance, by clear, unambiguous statements in the Highway Code (see 2.6), as well as alterations to legislation as set out in British Cycling's 'Turning the Corner' report, outlined below.[59]

Turning the Corner: making junctions better

1.2.2 The Government must implement the suggestions set out in 'Turning the Corner' to further simplify pedestrian and cycle crossings - both signalled and non-signalled - to provide better, continuous walking and cycling networks in local areas. Clear, unambiguous priority for pedestrians and cyclists over turning traffic should be enforced through alterations both to The Highway Code and legislation.

Cycling UK wholly supports the recommendations set out in the report produced by Phil Jones Associates for British Cycling, 'Turning the Corner', which made several key recommendations to alleviate the problems of a lack of priority at junctions.

The report outlines recommended improvements for two junction types:

a. Side-road entries and exits
b. Larger signalled junctions

Improving cycle and pedestrian priority at side roads

In the UK, legal protection for people on parallel cycle lanes or cycle paths over traffic turning into side-roads is ambiguous. This is not the case in most other European countries.

The new design for zebra crossings which permits cycling parallel to pedestrians could be used in these circumstances, but requires substantial roadside furniture, road markings and is seldom used close to the mouths of side-roads.

'Turning the Corner' sets out various problems with current practice, the deficiencies in the law and the ways in which the rules of the Code can be improved to ensure stronger protection for parallel cycle facilities and footways.

Many authorities (e.g. Transport for London, Brighton, Nottingham City) are already coming up with design solutions to give cycle tracks priority over side roads. There is, however, no consistency to

[58] CIHT. *Creating better streets: Inclusive and accessible places.* January 2018. http://www.ciht.org.uk/en/document-summary/index.cfm/docid/BF28B40D-9855-46D6-B8C19E22B64AA066
[59] British Cycling. *Turning the Corner: Priority Changes at Junctions to Improve Safety and Comfort for People Cycling and Walking.* December 2016. https://www.britishcycling.org.uk/zuvvi/media/bc_files/campaigning/Turning_the_Corner_-_Priority_changes_at_junctions_2016.pdf

the solutions they are adopting, and the legal situation is unclear, particularly over whether cyclists going straight ahead have priority over traffic turning across their path into the side road. (N.B. this problem does not arise where there is space to bend out the cycle track so that the point where it crosses the side road is slightly set back from the main roads). This is not usually possible, though, on urban roads, due to the presence of buildings.

We therefore call for a clear rule-change in the traffic signing regulations to allow 'Give Way' lines to be used on two-way streets without requiring centre-line markings on the approach to the junction. This would allow them to be used in the same way that the 'sharks teeth' marking works in the Netherlands. This change should be reflected in the Highway Code (see 2.6) as recommended in the 'Turning the Corner' report, and communicated to the public through a concerted advertising campaign to reinforce the importance of giving way to pedestrians and cyclists, along with the safety reasons behind the changes.

Signalised junctions

Busier, signalled junctions are also often unsatisfactory for cycling, with routes often indirect, incoherent and/or unsafe. Currently, introducing fully segregated routes for cyclists necessitates an additional phase in the signal cycle to segregate left-turning motor traffic from cyclists going straight ahead - the 'hold left on red' approach adopted on many of the new cycleways in London. The desire to maintain existing junction capacity often means that this separate phase - and therefore the whole scheme - is compromised.

This situation could be alleviated if designers were permitted to allow - in certain circumstances - left (and right) turning traffic to give way to cyclists or pedestrians travelling straight ahead. Commonly used in other countries (e.g. Denmark and Germany), this approach would be a radical change in British road practice, but we believe that, if carefully signalled and designed for low speeds, it could work safely and allow dedicated space to be provided at junctions to enable continuous cycle routes.

Working with local authorities willing to trial this principle, the DfT should identify suitable sites for trials to develop the kind of signing that would be reasonably well understood from the outset. Again, the Turning the Corner report has recommendations on how this might best be achieved.

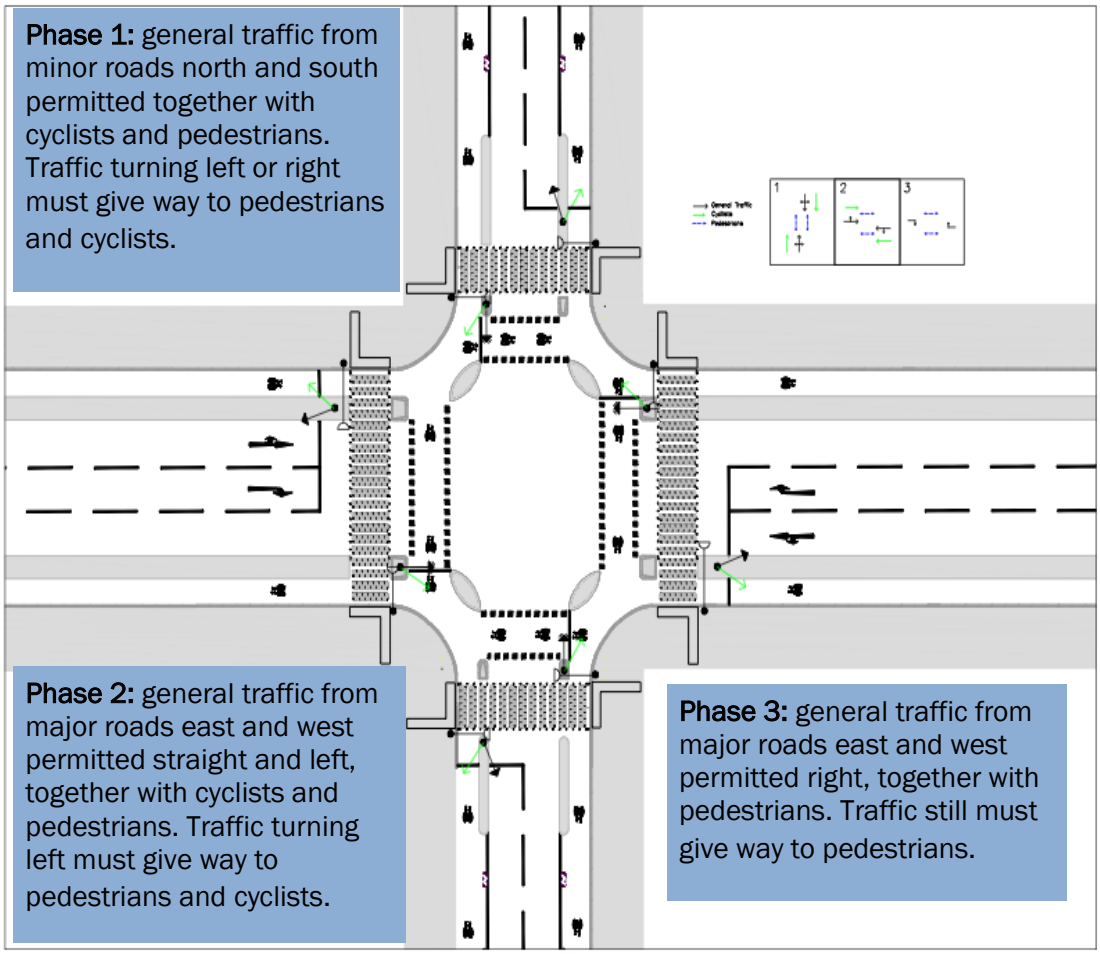

Figure 4: A signalled junction layout with fully segregated cycle lanes (B. Deegan)

Turning the Corner: meeting DfT's objections

We understand that DfT has challenged Turning the Corner's demands in a series of internal documents and emails released under the FOI Act (DfT FOI reference F0015002). We would like to refute some of the objections, as follows:

DfT's views as expressed in FOI documents	Cycling UK's view
Claims that changes to signals would be a risky move and would have considerable wider impacts on accessibility and safety.	Turning the Corner has only asked for research into the idea.
Claims that the UK already has safe roads and that this is unnecessary for safety reasons.	The UK has safe roads for drivers. Safety performance for pedestrians and cyclists is poor compared to many European neighbours.
No desire to change Highway Code, claiming this would be difficult/lengthy and require legislation, and changes to the Code are infrequent.	The Highway Code (HC) is currently in the process of being changed - together with legislation - to permit the use of autonomous parking systems. It is of great concern that DfT has decided to provide resources for legal and HC changes that are purely to make a small part of the driving task easier (with virtually no safety benefits), rather than changes to protect pedestrians and cyclists.
Object to changes to UK traffic signal rules that would, in some circumstances, permit drivers to pass through a pedestrian/cyclist crossing-point while the 'green man' shows (albeit with a requirement for drivers to give way). It would endanger pedestrians, and undermine confidence in crossing priority.	This approach succeeds in other European countries, including some with better pedestrian safety records than in Britain: UK has 6.8 pedestrian deaths per million, compared to 5.8 in Denmark, 5.1 in Sweden & 3.6 in the Netherlands (ETSC. PINS Flash 29. 2015. Table 3_.
Yielding to pedestrians during pedestrian green phase poses risks to mobility or visually impaired users.	Turning the Corner frees up junction capacity and can give longer phases to cross. Pedestrian phases can also be included where currently they are sometimes left out for capacity reasons. This would benefit visually impaired users. Again - this is common in other countries.
Cyclists and pedestrians can be given priority over traffic through ASLs, and 'hold on red' techniques.	Nothing under current regulations provides priority for pedestrians & cyclists over turning traffic for straight ahead vehicles at signals.
Solution using Zebra markings combined with traffic signals runs contrary to existing practice.	This, then, is something to research/trial. It is widely used in other countries – if Zebras to mark priority over turning traffic proves problematic, then trials of different markings should be used. However, we doubt this will prove necessary.

2 SAFE ROAD USERS

2.1 Cycle awareness

Headline recommendation:

2.1 Cycle safety awareness campaigns must be positive, based on fact and linked to enforcement.

Supporting recommendations:

2.1.1 All drivers must be made aware of and understand cyclists' needs and respect their safety.
2.1.2 Awareness campaigns and materials aimed at drivers and/or cyclists must be: based on sound research, accurately targeted, positive and non-judgemental; and avoid victim-blaming.
2.1.3 Driver education/awareness campaigns must be linked to enforcement activity.
2.1.4 Schools and colleges should teach children about responsible road use, and promote positive messages about cycling and cycle safety.

Self-evidently, as both we and your consultation document highlight, cyclists (and pedestrians) are considerably more vulnerable on the roads than the occupants of motor vehicles (see 2.7). This is, of course, reflected in casualty rates.

Cyclists depend heavily on responsible behaviour from drivers, their understanding of cyclists' vulnerability and how to interact with them safely. For this to be ingrained, routine and enduring, it needs to be a much stronger element of the driver training and testing process, and regularly bolstered by effective awareness campaigns and, of course, enforcement. This is more important than ever now that drivers are encountering more cyclists more often on the roads: over the last ten years, cycle mileage has grown in Britain: 3.45 billion vehicle miles were cycled in 2016, compared to 2.80 in 2006 (+23%).[60]

Yet, without a much firmer assurance that the system will, as far as possible, produce and maintain safe and compliant drivers whose behaviour is respectful towards cyclists, the two-thirds or so of the adult British public who think it is too dangerous for them to cycle on the roads are unlikely ever to see cycling as a natural - let alone healthy and fun - choice for any trip.[61]

[60] DfT. *Road Traffic Estimates in Great Britain 2016.* Table TRA0401. April 2017. https://www.gov.uk/government/collections/road-traffic-statistics
[61] DfT. *British social attitudes survey*. Aug 2017. ATT0313. https://www.gov.uk/government/collections/statistics-on-public-attitudes-to-transport#publications

Current driving standards, and behaviour towards cyclists

2.1.1 All drivers must be made aware of and understand cyclists' needs and respect their safety.

Regrettably, the concerns that many cyclists, would-be cyclists and, in fact, all road users share about modern driving standards are justified.

We know that drivers have a tendency to overrate their skills and complain about other people's standard of driving despite breaking the law themselves:

- A survey from Brake (2015) found that over two thirds think they are safer drivers than most, although very nearly half admit to breaking traffic laws. Of these law-breakers, around half offend whilst not paying attention and the other half do so consciously.[62]
- A RAC motoring report (2015) suggests that over 40% of drivers believe that standards are lower than they used to be. Many, though, break the law themselves: over 41% of the drivers the RAC surveyed last year admitted that they exceeded the speed limit in 20 mph urban zones, while 39% went too fast along 30 mph roads.[63]

Cyclists' vulnerability and fault in collisions

While inattention, bad driving and conscious law-breaking are of concern to all road users, it is especially alarming for the most vulnerable.

Perhaps most crucially for cyclists in general, their own behaviour is less likely to be at fault in collisions than that of drivers: cycles, along with buses/coaches, are the vehicle-type least likely to have 'contributory factors' (CFs) attributed to them by the police through STATS 19.[64] A detailed TRL report, commissioned by the DfT, also found this to be the case.[65]

Cyclists, of course, suffer not only from impact collisions, but are regularly subject to off-putting 'near misses' too. As the author of a research paper published in 2015 said:

> "Frightening or annoying non-injury incidents, unlike slight injuries, are an everyday experience for most people cycling in the UK. For regular cyclists 'very scary' incidents (rated as 3 on a 0-3 scale) are on average a weekly experience, with deliberate aggression experienced monthly. Per mile, non-injury incidents were more frequent for people making shorter and slower trips. [...] Incidents that involved motor vehicles, especially those involving larger vehicles, were more frightening than those that did not."[66]

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[62] Direct Line/Brake. *A Risky Business* (Report 3). Dec 2015. www.brake.org.uk/assets/docs/dl_reports/DLreport-ariskybusiness-sec1-howsafeisyourdriving-apr15.pdf

[63] RAC. *Reports on Motoring 2015 & 2017*. http://www.rac.co.uk/advice/reports-on-motoring

[64] Data source: DfT, *Reported Road Casualties GB 2016,* Table RAS50005

[65] TRL. *Collisions involving cyclists on Britain's roads: establishing the causes* (PPR445). P34. October 2009. Tables 7-4. For fatalities, blame was allocated more often to the cyclist – but in these cases, the cyclist was not there to tell the side of their story, of course. https://trl.co.uk/publications

[66] Aldred. R. *Investigating the rates and impacts of near misses and related incidents among UK cyclists*. June 2015. Published in the Journal of Transport and Health. https://www.researchgate.net/publication/278161368_Investigating_the_rates_and_impacts_of_near_misses_and_related_incidents_among_UK_cyclists [accessed May 04 2018].

This suggests that much more effort should be made to instil in drivers a better understanding of cyclists and how to drive safely round them.

The need for greater cycle awareness

As your consultation document notes, drivers tend to stereotype cyclists negatively. They can be critical of cyclists' actions without understanding why they behave as they do, find them unpredictable, see them as an 'out group' who all exhibit the same 'faults', and even feel stressed by their vulnerability. [67]

These negative attitudes and lack of understanding go a long way to explain why the behaviour of some drivers, inadvertently or wilfully dangerous, make road conditions hostile for so many cyclists, as described above.

What drivers need to know

Cycling UK has identified a range of actions from drivers that put cyclists at risk or are known to cause injuries and fatalities, particularly:

- failing to look before turning at junctions and/or roundabouts;
- speeding;
- distraction (e.g. by mobile phones);
- close overtaking (including on bends); and
- opening car doors without looking.

Also, we know that some drivers feel aggravated when they find cyclists 'in the way' – e.g. riding away from the kerb or in the middle of a traffic lane. This may well be because drivers are unaware of the advice given to cyclists by the National Standard, i.e. to ride away from the gutter to avoid any surface defects and drain covers, to be visible, and to 'take the lane' to deter drivers from overtaking them when there is not enough room to do so safely.

Cyclists are often criticised too for not using a dedicated facility alongside the road, or riding two abreast. Again, this implies both misinformation and ignorance. Some routes by the side of the carriageway are poorly surfaced or maintained; and/or they may force cyclists to give way and make unsafe crossings of side roads at junctions, making it safer (as well as quicker) to remain on the carriageway. Equally, riding two abreast is not an offence – some cyclists, especially if in groups, deliberately take on the formation to stop drivers from overtaking when the manoeuvre could be dangerous. (Cycling UK explains this, and looks at other myths, here: www.cyclinguk.org/article/whats-legal-and-whats-not-your-bike).

[67] Basford, L, et al. (TRL). *Drivers' perceptions of cyclist* (TRL549). 2002. https://trl.co.uk/publications

As a TRL report said in 2002[68]:

> "Education of drivers should focus not on helping them to predict cyclist behaviour but on understanding that circumstances will influence that behaviour."
>
> "Drivers' education [...] should include advice on how to respond when encountering cyclists at certain types of road feature, both those explicitly providing for cyclists and other highway features. More clearly defining the appropriate responses may assist drivers in knowing how to behave more considerately and in resisting social pressure from other drivers to force their way past cyclists."

In theory, promoting a better understanding between cyclists and drivers should not be too great a challenge: much of the type of behaviour from motorists that puts other drivers under stress is exactly the same as the type of driving behaviour that puts cyclists at risk and/or makes them feel unsafe.[69] Cycling UK believes that, for both national and local government to fulfil their duties to promote road safety and training, drivers must be made aware of the issues listed on the next page.

[68] Basford, L, et al. (TRL). *Drivers' perceptions of cyclist* (TRL549). 2002. https://trl.co.uk/publications
[69] RAC. *Report on Motoring 2013: A motoring nation*. http://www.rac.co.uk/advice/reports-on-motoring. The 'Top five 'causes of stress' that the drivers who responded to the RAC's survey listed were 'drivers who use their hand-held mobile phone while driving' (76%); 'drivers who fail to signal their intentions clearly' (75%); 'drivers who drive too close behind you (tailgating) (74%)'; 'drivers who cut in sharply after overtaking' (65%); 'other drivers' road rage or aggressive driving' (64%).

Cycle awareness: key messages for drivers

Always look carefully for cyclists before: pulling out at a junction or roundabout; making any turning manoeuvre; or changing lanes in slower-moving/stationary traffic. Make it obvious that you have seen them (apparent inattention is confusing), and signal intentions clearly.

Before turning out of one road into another, wait for any cyclist riding along the other road to pass. Do not turn out in front of them.

Leave plenty of space when overtaking a cyclist, i.e. at least a car's width when overtaking at lower speeds (20-30mph). Allow even more space: (a) when travelling at higher speeds; (b) when driving a lorry or other large vehicle; (c) in poor weather (rain makes it harder for cyclists to see potholes and reduces grip; and wind gusts can cause them to wobble); (d) on left-hand bends. Never cut in/turn left sharply after overtaking a cyclist.

Wait for a cyclist to ride through a pinch point / road narrowing before driving past, unless absolutely certain that there is enough room to overtake at a safe distance.

Do not try to squeeze past oncoming cyclists if there is not enough room to do so safely.

Drive at a considerate speed; do not accelerate or (without very good reason) brake rapidly around cyclists; or follow them impatiently/too closely ('tailgating' intimidates drivers too).

Understand how ASLs and mandatory/advisory cycle lanes work and the regulations that apply. Also, be aware of cycle symbols painted on the road and understand why they are there.

Do not park in cycle lanes: this can force cyclists to pull out riskily into the main stream of traffic.

Do not get impatient with cyclists who ride away from the kerb/parked cars. Cyclists are trained not to hug the kerb. This is because it increases their visibility and helps them avoid the risks of: (a) parked car doors opening on them; b) being overtaken where this would be dangerous; and (c) having to swerve towards the main traffic stream to avoid potholes.

Look out for cyclists before opening a car door, and make sure passengers do too. Be aware that it is an offence to injure or endanger someone by opening a vehicle door, or even permit it.

It is not compulsory for cyclists to use cycle tracks beside the road. All too many tracks are not properly designed/maintained, and/or may be obstructed. It is often better for cyclists (especially faster cyclists) to ride on the carriageway, both for their own and pedestrians' safety and comfort.

Cyclists riding in groups are not required to keep in single file and often ride two abreast on narrow and winding lanes in the interests of safety. If they form a long, single-file line, drivers may try to overtake only to find that they are forced to pull in dangerously by oncoming vehicles. Riding two abreast is a way of deterring drivers from dangerous overtaking manoeuvres.

Awareness campaigns: good and bad practice

2.1.2 Awareness campaigns and materials aimed at drivers and/or cyclists must be: based on sound research, accurately targeted, positive and non-judgemental; and avoid victim-blaming.

Much of the good practice we advocate for public awareness campaigns reflects the findings of a 2009 study of several successful initiatives targeted at certain behaviour (these included speeding and green travel, but the range also covered issues un-related to transport). Most salient to the tactics Cycling UK supports, the authors highlighted: sound research, accurate targeting, non-judgemental attitudes and a positive approach.[70]

Below we set out the principles of good practice that apply to all driver/cycle awareness campaigns in any format, e.g. online, videos, posters etc., and whoever launches them (i.e. the DfT, local authorities, the police or other agencies).

✓ Good practice check-list: awareness campaigns should:

✓**Be informed by the issues listed on the previous page, when promoting cycle safety**;

✓**Be positive in tone and promote good behaviour**: people are known to be more receptive to positive messages than judgmental, lecturing and/or negative ones.

✓**Adopt a single, simple and memorable message**, e.g. 'Think once, think twice, think bike', from the DfT's Think! campaign to make drivers more aware of motorcyclists.

✓***Either*** **convey positive messages to both drivers and cyclists** about sharing the roads; ***or***

✓**If aimed at problem behaviour, deliver simple memorable messages to one group or the other**, based on an accurate understanding of why those behaviours occur.

✓**Reflect fact**: i.e. principally that cyclists do negligible harm to other road users in comparison with motor vehicles; and are more likely to be injured and less likely to be at fault in road traffic collisions than the other parties involved (almost always motor vehicles (see 2.7).

✓**Avoid simplistic negative stereotypes and victim-blaming**: this only serves to reinforce the unfounded attitudes that all too many drivers hold to the detriment of cyclists and cycling.

[70] JRF. *Changing Attitudes, Knowledge and Behaviour*. 2009. https://www.jrf.org.uk/sites/default/files/jrf/migrated/files/alcohol-attitudes-behaviour-full.pdf

Bad practice check-list: awareness campaigns should not:

- **Be judgmental, lecturing or negative**: adults resent being lectured about their behaviour, even from 'authoritative' figures, particularly if they are not guilty of it.

- **Be multi-purpose/multi-targeted**, i.e. trying to address problem behaviours among drivers and cyclists alike in the same campaign (e.g. 'Drivers and Cyclists are More Alike than you Think', DfT 2012).

  Campaigns that try to address problem behaviours amongst cyclists and drivers simultaneously create a false equivalence between the offences of the two groups, and exaggerate the harm that people who cycle have the potential to cause.

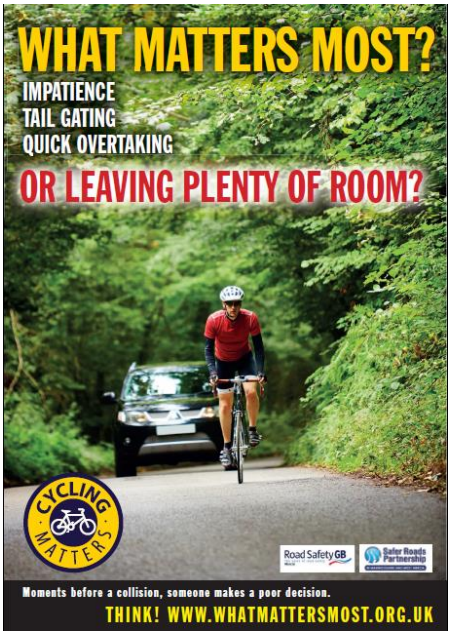
  In Cycling UK's experience, this is an ineffective approach with too many targets, both in terms of road users and messages. It is usually adopted in a misguided bid to be seen to be even-handed and avoid criticism from motoring groups.

- **Be untruthful, evasive, exaggerate, and/or 'victim blame'**: as mentioned, it is inaccurate to suggest that cyclists share at least equal (if not greater) responsibility for their own collisions; and it is unfair to portray their offending as more dangerous than it truly is. (Note: Cycling UK fully supports responsible and lawful behaviour by all road users, and does not condone offending behaviour by cyclists).

  'Shock tactics' are, therefore, most appropriate for campaigns against genuinely hazardous behaviour (e.g. speeding by car drivers), but they are not appropriate for messages aimed at cyclists. Equally, road safety campaigns should not exaggerate the efficacy of personal safety equipment, such as helmets.

- **Pander to negative stereotypes:** i.e. suggest, even implicitly, that all cyclists ride on the pavement and jump red lights. Again, this approach is often adopted merely for PR/political reasons, but only serves to reinforce negative attitudes towards cycling while offending responsible cyclists who are in the majority.

Good practice case study: 'What Matters Most' (Safer Roads Partnership in West Mercia, 2013)



Launched in March 2013 but still online, 'What Matters Most' is a publicity campaign and information resource focussing on driver distractions. Although it targets all road users, it emphasises the needs, concerns and safety of cyclists in particular.

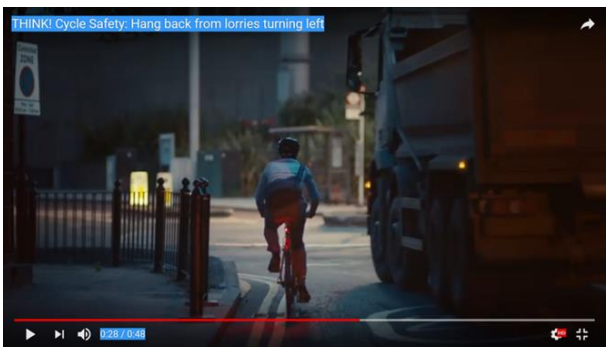
This largely sound campaign homed in on the simple errors and poor decisions made by drivers that can put cyclists at risk.

Most of the messages and graphics are simple, focussed, well-communicated, do not lay blame or make any explicit or implicit judgements about cyclists' behaviour.

For example, one poster asks drivers to think about whether it is more important to make a call on a mobile or eat a sandwich at the wheel than see a cyclist; and another asks whether impatience, tail-gating or quick overtaking matters more than leaving a cyclist plenty of room (poster left). [71]

www.whatmattersmost.org.uk

Bad practice case study: THINK! Hang Back (DfT, 2016)



Regrettably, THINK!'s 'Hang Back' campaign is, in our view, a classic example of a 'victim-blaming' approach.

Designed, no doubt with good intentions, to alert cyclists to the risks of 'left hooks' from lorries, it advised them against riding between two colliding objects.

We objected primarily because the message implies that if a cyclist finds themselves between a lorry and a kerb in the vicinity of a junction, it is their fault if they are crushed should the lorry turn left.

It is profoundly misleading to suggest this because: cyclists do not necessarily choose to put themselves in such a position (the lorry might have overtaken them); and drivers ought not to endanger others by their manoeuvres and should never be absolved of responsibility, even implicitly. Designing out lorry cab 'blind spots' is a crucial issue here too (see 4.1.1), as is junction layout (see 1.2).

[71] Note: one of the campaign's posters was less satisfactory. See Cycling UK's briefing on awareness campaigns, April 2017, p5. https://www.cyclinguk.org/sites/default/files/document/migrated/info/awareness-campaigns4jbrf.pdf

Vehicle stickers

Vehicle stickers are often used to warn cyclists not to undertake lorries. Again, Cycling UK believes that all bodies with a road safety remit, including local and national government, must promote and support good practice, i.e. messaging that is clear, non-judgemental and never misleading.

Vehicle stickers: key principles

- Warnings are more effective than commands, e.g. 'Watch Out' rather than 'Stay Back'. 'Stay Back' is good advice to any cyclist approaching a large vehicle from behind, but on a sticker it may give drivers the false impression that cyclists are breaking the law if they undertake or overtake them. It also implies that it is a cyclist's responsibility not to put themselves in this position rather than a driver's responsibility to look out for them.
- Warning stickers should only be used on the rear of high-cab lorries (i.e. vehicles with genuine 'blind spots'). They should not be used on buses, small vans or taxis, i.e. vehicles whose drivers have adequate vision of the road about and should have no difficulty being careful in the presence of cyclists/ pedestrians.

✓ Good examples:[72]

The sign on the far left clearly warns cyclists against undertaking a lorry.

The 'Watch Out' sticker uses easily understood imagery – i.e. the iconography of internationally understood road signs – rather than relying on words. This means that cyclists, including those whose first language is not English, can understand it quickly and easily.

It gets its message across clearly but without being scary, or suggesting that it is illegal to pass a vehicle on the left-hand side. Also, being 2-dimensional, it is not obvious whether the cyclist is acting foolishly or staying back – it is a genuine, non-judgemental warning.

✗ Bad example:

This notice, based on a prohibitive traffic sign, gives drivers the false impression that cyclists passing on the left side are lawbreakers. As a result, they may not drive with as much care as they should and, in the event of a collision, blame the cyclist even though there is a clear duty of care for drivers to look out and not turn across the path of cyclists at junctions.

[72] The wording on the far left-hand image from Transport for London (TfL) was agreed with London Cycling Campaign (LCC) in 2006. The other image won a national design competition for an easily understood image. For more on stickers, see: http://www.cyclinguk.org/news/cycling-and-safety-groups-object-to-tfl-sticker-on-vans-and-buses.

Funding awareness campaigns

Funding decisions on road safety awareness campaigns should be based on:

- An accurate understanding of the scale of the problem in question, and/or the safety benefits of tackling it (as explained above);
- The need to respect the place of cyclists in the hierarchy of road users – i.e. above motorised transport.

Awareness + enforcement activity

2.1.3 Driver education/awareness campaigns must be linked to enforcement activity.

There is little evidence to suggest that awareness campaigns change behaviour on their own. To maximise their impact, therefore, they need to interact synergistically with enforcement activity.

While awareness campaigns help make people understand why they need to behave in a certain way, vigorous enforcement seals public acceptance, and ensures that those who still ignore the messaging will be suitably penalised.

This is a key lesson from the Government's long-term campaign to tackle drink-driving through publicity and linked enforcement. We very much commend the steep drop in drink-drive deaths since 1979 (-85%), and the marked change in public attitudes that the DfT verified in its survey to mark the campaign's 50th anniversary back in 2014.[73].

It is with some concern, therefore, that Cycling UK notes that provisional figures for 2016 saw a 'statistically significant' rise in fatalities, KSI and the total number of collisions and incidents where at least one driver was over the alcohol limit. Drink-drive awareness or enforcement – or both – seem to be weakening somehow. Dwindling numbers of roads police may well be a factor (see 2.3).

[73] DfT. *Massive change in attitude to drink driving since THINK! campaign launched 50 years ago*. DfT press release 7/11/2014.
www.gov.uk/government/news/92-of-people-feel-ashamed-to-drink-and-drive-as-50th-anniversary-think-campaign-is-launched

Good practice case study: 'Operation Close Pass', West Midlands Police

In 2016, the West Midlands police developed 'Operation Close Pass', an exemplary education/enforcement campaign targeting drivers who overtake cyclists too closely.

The operation, which is ongoing, involves intercepting drivers who fail to give a plain clothes police officer on a bike enough room, and pulling them aside for a demonstration of safe passing distances on an illustrated ground-mat. Repeat offenders, those who drive dangerously close, and those who decline the "chat on the mat", however, may still be charged.

By September 2017, the force had pulled over at least 200 offenders, while reports of close passes halved. They also noted that: "The number of cyclists involved in serious road smashes in the last year has dropped by 20 per cent compared to the previous 12 months."[74]

Since the launch of the scheme, Cycling UK has crowdsourced funding for similar mats and supplied them to most other forces in the UK. Several are now putting the mats enthusiastically to use.[75]

Road safety education in school / college

2.1.4 Schools and colleges should teach children about responsible road use, and promote positive messages about cycling and cycle safety.

We strongly agree that schools can provide a vital learning ground for road safety.

In Cycling UK's view, all schools should teach children about responsible road use in PSHE lessons, supported by resource packs that include positive material about taking particular care of cyclists and pedestrians. This would benefit children from their earliest stages of development right up to their teenage years, when group-based peer discussions about road safety help offset the otherwise 'solo' nature of learning to drive.

It is unfortunate, therefore, that some schools present such a negative image of cycling, and even take a punitive attitude – i.e. by banning it rather than addressing the local hazards that affect it (e.g. bad driving from members of the school community). We even know of instances where schools have threated to confiscate the bikes of children who arrive without helmets.

There is no excuse for reinforcing debatable, prejudicial road safety messages that make cycling seem like an extremely dangerous way of commuting to and from school, so we urge the DfT to do what it can, jointly with the DfE, to promote positive messages about cycling and cycle safety in schools.

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[74] West Midlands Police. Press release 23 Sept 2017. https://west-midlands.police.uk/news/3951/serious-cycle-smashes-down-fifth-close-pass-first-year

[75] See Cycling UK's Too Close for Comfort campaign https://www.cyclinguk.org/campaign/toocloseforcomfort

2.2 Driver training, testing and licensing

Headline recommendation:

2.2 Cycle safety awareness should be integral to the driver training, testing and licensing process.

Supporting recommendations:

2.2.1 The DfT should commission a formal study of the long-term effect that Bikeability training in school/college has on road safety, learning to drive and driving standards.
2.2.2 Driver training and testing processes should give greater weight to cycle safety awareness, hazard perception, and to understanding why traffic rules matter.
2.2.3 The Government should introduce a form of Graduated Driver Licensing.
2.2.4 Trainee drivers should be incentivised to complete Bikeability training to Level 3, e.g. through discounts on insurance and on the conditions imposed under any future Graduated Driver Licensing system. Bikeability Level 3 training should be mandatory for the drivers of large vehicles, and for driving instructors.
2.2.5 The Government should consider regular retesting and other interventions to ensure the retention of good driving habits and to remove bad and/or medically unfit drivers from the road. These processes are particularly important for older drivers.
2.2.6 A special extended re-test linked to remedial training should be compulsory for: disqualified drivers; those who have accumulated 12 points; and drivers who have committed any serious road traffic offence. Drivers whose behaviour towards cyclists has been brought to the attention of the police should be sent on an NDORS-style cycle awareness course.

Research into the effect of cycle training on learning to drive and driving standards

2.2.1 The DfT should commission a formal study of the long-term effect that Bikeability training in school/college has on road safety, learning to drive and driving standards.

Research suggests that Bikeability has a positive impact on children's road user skills as cyclists: those trained to Level 2 seem to be significantly better at hazard perception quizzes and in practice than children who have not received the training. The effect is sustained for a while afterwards (although their ability to put the knowledge into practice seems to decline over time if the skills are not practised).[76]

Hazard perception, of course, is an essential driving skill as well, and we hear from driving instructors that learners with cycle training and regular cycling experience behind them seem to be better prepared for safe driving. This is only anecdotal evidence, however, so we would very much

[76] Hodgson, C & Worth, J. *Research into the impact of Bikeability training on children's ability to perceive and respond to hazards when on the road*. 2015. https://bikeability.org.uk/publications/

welcome in-depth research into the effect that National Standard training in school or college has on driving competence in later life.

We believe it would be valuable for DfT to commission this research given its interests in both cycle and driver safety, and its long-term backing for Bikeability. It is also a valuable and timely exercise, now that a fair proportion of the children first trained in 2005/6 are of driving age, and cycle training organisations will hold contact data for some of them. Hence it will now be possible to carry out such research.

We look at Bikeability in terms of encouraging cycle use amongst children and adults, and improving their safety as cyclists in 2.8.

Training and testing

2.2.2 Driver training and testing processes should give greater weight to cycle safety awareness, hazard perception, and to understanding why traffic rules matter.

References to vulnerable road users are scattered throughout the DVSA's 'Car and Light Van Driving Syllabus', but Cycling UK believes that both it and the 'National Standard for Driving' need to go further, particularly by focussing more on understanding cyclists' behaviour and how to act accordingly.

Given our views on the driving test below, we were pleased to note a DfT minister saying in 2017 that the DVSA was taking steps to put a "greater emphasis on increasing safety for cyclists".[77] We trust this is still being progressed.

Cycle safety awareness

Cycling UK believes that cycle awareness modules should be developed for all trainee drivers, with a set amount of time devoted to them. They should be based on the list of key messages for drivers set out at 2.1.1. In particular, learners should be told how cyclists are intimidated and are at risk of injury when drivers:

- fail to look properly at junctions;
- overtake too closely;
- speed;
- use mobile phones at the wheel; and
- open car doors without checking first for cyclists.

Certainly, such modules should be a compulsory component of both the initial qualifying process for the drivers of large goods vehicles, and the maintenance of their licence thereafter. We were therefore disappointed to learn that, while the DfT has said that it is working with the freight industry to encourage trainers to include "relevant content" on vulnerable road users, it has not

[77] Parliamentary question. 3 March 2017. https://www.theyworkforyou.com/wrans/?id=2017-02-27.65630.h

imposed a mandatory requirement on the basis that it "would require a legislative change and [...] would be overly burdensome to the industry."[78]

Nowadays, however, accessing cycle awareness training is increasingly easy for fleet operators: many courses have already been developed for professional drivers of lorries, buses etc.[79]

Also, when large development projects are proposed, early plans should be made to supply and mandate cycle awareness training to the drivers of all construction vehicles, as happened with the Crossrail project.[80]

The driving test

Theory

While the theory test for car drivers already poses some questions on what to do when encountering a cyclist or pedestrian in a particular situation, or the rules of a cycling facility etc., Cycling UK believes it should include more questions about driving around cyclists, based on the key messages for drivers we list at 2.1.1.

Also, it should examine candidates not simply on what the rules of the road are, but on the reasons behind them, especially on mobile phone use and speeding. After all, passing a multiple-choice test is no real guarantee that a candidate is a considerate driver – it may merely mean that they have learnt the correct answers in advance, but still have no genuine understanding.

It is to all road users' advantage that everyone is thoroughly examined on the theory behind the rules: it makes them easier to remember and follow, not just for the immediate purposes of the test, but whilst driving afterwards.

Hazard perception

Cycling UK believes that far more weight should be given to hazard perception. This is because it demonstrates that a candidate actively thinks about and appreciates the likely impact of their driving manoeuvres and the safest way of carrying them out.

Moreover, it may be especially valuable for young drivers. After all, they tend to exhibit good vehicle control skills and fast reaction times, but are not so proficient at spotting and assessing potential risks, something that makes a material difference to their interaction with vulnerable road users. They are also more susceptible to sensation-seeking and peer-pressure, while over-confidence can make them think that they are better able to avoid hazards than they actually are.

According to an IAM report on collision types, for example, young drivers are much quicker to learn how to avoid 'single vehicle loss of control collisions' than how to deal with vulnerable road users. The authors found that: "Collisions with vulnerable road users (e.g. pedestrians, pedal cyclists and motorcyclists) decline less quickly than the trend for all collisions, suggesting that more could be

[78] DfT. *Safe, Secure, Sustainable: the motoring services agencies.* May 2016. https://www.gov.uk/government/consultations/motoring-services-strategy-a-strategic-direction-2016-to-2020
[79] See, for example https://www.cycletraining.co.uk/our-services/for-drivers/
[80] http://www.crossrail.co.uk/construction/road-safety-information/lorry-driver-training

done to improve novice drivers' skills for identifying vulnerable road users." One of the report's conclusions was that this could reflect known shortfalls in their hazard perception skills. [81]

Practical

Driving at lower speeds: now that 20 mph limits are proliferating in the UK, often for the benefit of cyclists and pedestrians in urban areas (see section 3), Cycling UK believes that candidates should be tested not only on their ability to interact with cyclists safely, but on driving at lower speeds.

Opening car doors: given the dangers that 'car-dooring' poses to cyclists (see 2.5.3), examiners should also ask all candidates to demonstrate the safest way of opening a car door, i.e. the 'Dutch Reach', which makes it more likely that drivers and passengers look over their shoulder first (see 2.6.2). This should have been clearly explained to them by their instructors during the learning process.

Graduated Driver Licensing (GDL)

2.2.3 The Government should introduce a form of Graduated Driver Licensing.

Young and inexperienced drivers: the risks

Cars are large, heavy, complex and potentially very fast machines, but the current training and testing system allows people as young as 17, who are biologically more likely to take risks, to operate them with no minimum period of training. The licensing requirements for anyone wanting to take charge of any other comparably lethal machine are far more stringent.

Although the proportion of 17-20 year-olds with full licences in England has been dropping over the last ten years, Britain is still heavily car-dependent, and the pressure to learn to drive is still strong. From April 2016 to March 2017, around 71% of newly qualified drivers were 17-25 year-olds.[82]

As often reported and as the DfT are of course aware, young drivers are over-represented in reported collision and casualty statistics, and pose a risk both to other road users and themselves.[83]

Arguably, major factors here are: the training and testing system's strong focus on vehicle handling (which is not too much of a challenge for most young people); insufficient focus on hazard perception (see 2.2.2); plus a failure to put enough emphasis on social responsibility and emotional control.

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[81] IAM RoadSmart. *Young Novice Driver Collision Types. January 2018*. https://www.iamroadsmart.com/docs/default-source/default-document-library/0335_young-driver-collision-document-v02.pdf?sfvrsn=f04431f1_0
[82] DSA. *Driving Test and Instructor Statistics. Jan – March 2015*. Table DRT0203. June 2015. https://www.gov.uk/government/collections/driving-tests-and-instructors-statistics
[83] Dft. *Young Car Drivers Road Safety Factsheet*. May 2018. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/706516/young-car-drivers-factsheet.pdf

Solutions

Cycling UK thus supports a number of the recommendations made by TRL in reports for the DfT, principally on Graduated Driver Licensing (2013), [84] and on interventions for young and novice drivers (e.g. engaging parents post-test in setting limits; 120 hours of pre-test driving experience; telematics; and post-test hazard perception training).[85]

Clearly, driver training is not rigorous enough to equip people, and young people in particular, for solo driving so soon afterwards. Indeed, there is a strong sense amongst them that "you pass your test, and then you learn to drive".[86]

This could be addressed by introducing tighter controls on all new drivers by 'Graduated Driver Licensing' (GDL).

As a strong supporter of GDL, Cycling UK was pleased to hear the Prime Minister state in Parliament earlier this year that she was asking the DfT to look into it.[87] We were equally pleased to see the TRL report (2013) commissioned by the DfT that recommended its adoption in Britain on the basis of realistic but conservative estimates, i.e. that it could save 4,471 casualties and £224 million annually, based on 17-19 year-old drivers. Taking the strictest approach, the researchers said, could save twice as much.[88]

In Northern Ireland, legislation to introduce a form of GDL has already received Royal Assent.[89]

The best way for the Government to allay any worries the restrictions imposed by GDL would put young people at a social, educational or financial disadvantage, would be to guarantee investment in reliable, affordable public transport and high-quality provision for cycling and walking.

GDL, though, already enjoys significant support amongst the British public: a survey from the road safety charity Brake (2016) found that around nine out of ten respondents backed the type of restrictions that GDL imposes.[90]

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[84] TRL. *Novice drivers: Evidence review and Evaluation Pre-driver training, Graduated Driver Licensing*. Oct 2013. https://www.gov.uk/government/publications/novice-drivers-evidence-review-and-evaluation

[85] TRL. *A review of interventions which seek to increase the safety of young and novice drivers*. 2016. https://www.gov.uk/government/publications/review-of-interventions-to-increase-the-safety-of-young-and-novice-drivers

[86] Aegis Media Research. *Top Line Summary of Young Drivers Focus Group Research on Attitudes to Driving and Insurance.* Sept/Oct 2012. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/157749/summary-young-drivers-research.pdf

[87] Prime Minister's Question Time. 7 February 2018. https://hansard.parliament.uk/commons/2018-02-07/debates/B3EF2D42-D1CF-4293-BCB1-FE3086EB84AD/Engagements

[88] TRL. *Novice drivers: Evidence review and Evaluation Pre-driver training, Graduated Driver Licensing*. Oct 2013. https://www.gov.uk/government/publications/novice-drivers-evidence-review-and-evaluation

[89] http://www.legislation.gov.uk/nia/2016/11/contents

[90] Brake. *Are you ready to drive?* May 2016. www.brake.org.uk/info-and-resources/facts-advice-research/driver-survey-reports

For GDL, Cycling UK advocates:

A minimum learning period of at least 12 months

Although being male and young are associated with a higher crash risk, evidence suggests that inexperience makes even more difference than being young. One researcher, for example, concluded that "the effect of driving experience on accident liability is considerably larger than that of age, and is particularly significant in the early years of driving". [91]

Other research has found that it takes around 1,000 miles of post-licence experience for novice drivers to show similar physiological responses to developing road hazards in video-clips to those shown by experienced drivers who have three or more years of post-licence driving.[92]

Yet, on average, novices take their car driving test after about 52 hours of professional training,[93] and there is no set minimum for the number of lessons or hours of practice.

Introducing a minimum learning period, ideally for 12 months and expecting learners to accumulate at least 120 hours of pre-test driving, makes it more likely that teenagers achieve the level of practice they need. For most, this would mean spending more supervised and less solo driving time, experiencing a wider range of driving conditions, a better chance to learn the skills necessary to protect cyclists and to develop their hazard perception skills.

At least ten hours of this practice should involve professional tuition, and include compulsory modules on interacting with cyclists, reinforced with practical cycle training, if possible

For those who have qualified to Bikeability Level 3 or the equivalent, the minimum learning period (and maybe other components of a GDL system) could be reduced.

Intermediate/probationary stage

This stage would impose restrictions on new drivers post-test. For example, it could prohibit:

- driving at night between 10pm – 5am (i.e. a 'curfew');
- driving on motorways and/or certain other road;
- carrying teenage passengers; and
- using hands-free mobile phones

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[91] Maycock. G. *Estimating the effects of age and experience on accident liability using STATS19 data*. Published in *Behavioural Research in Road Safety: Twelfth Seminar*. (DfT 2002). http://webarchive.nationalarchives.gov.uk/+/http:/www.dft.gov.uk/pgr/roadsafety/research/behavioural/archive/viouralresearchinroadsaf4684.pdf

[92] Kinnear N et al. *Do we really drive as we feel?* Published in *Behavioural Research in Road Safety: 17th Seminar*. Sept 2007. http://webarchive.nationalarchives.gov.uk/20090417002224/http://www.dft.gov.uk/pgr/roadsafety/research/behavioural/seventeenthseminar/17thseminar.pdf quoted in TRL Insight Report INS005 *How can we produce safer new drivers?* (Helman S et al. 2010. https://trl.co.uk/publications

[93] Box, E & Wengraf, I. *Young Driver Safety: Solutions to an age-old problem*. July 2013. RAC. http://www.racfoundation.org/assets/rac_foundation/content/downloadables/young_driver_safety-box_wengraf-july2013.pdf

Such restrictions would be lifted after a set time (e.g. 6 - 12 months), at a certain age, and/or following another test.

Black boxes

Cycling UK also advocates 'telematics', i.e. installing 'black boxes' in cars to monitor the behaviour of young drivers, rewarding those who drive well with discounts.

Bikeability Level 3 for learner drivers and professionals

2.2.4 Trainee drivers should be incentivised to complete Bikeability training to Level 3, e.g. through discounts on insurance and on the conditions imposed under any future Graduated Driver Licensing system. Bikeability Level 3 training should be mandatory for the drivers of large vehicles, and for driving instructors.

In recommendation 2.2.1, we said we would welcome in-depth research into the impact that Bikeability training in school or college has on driving competence in later life. Arguably, it offers an insight into vulnerability and why it is so important to drive in a manner that protects cyclists and pedestrians from intimidation, risk and danger. Also, those who have personal experience of cycling are far less likely to be mystified by cyclists' behaviour or see them as an 'out group'.

Indeed, research shows that 'cyclist-motorists' are likely to have fewer collisions with cyclists, and detect them at greater distance in all situations, irrespective of cyclist visibility.[94] It also suggests that cycling experience could make drivers safer in general because it is associated with "more efficient attentional processing for road scenes."[95]

As far as the National Standard for Driving is concerned, cycle training would help drivers appreciate "the importance of predicting the likely actions of other road users, especially vulnerable road users such as cyclists [...]," as required of them by Element 4.1.1.

It would thus make sense for Bikeability Level 3 to be far more widely available for all students approaching the legal driving age. Ideally, this should build on Level 1 & 2 Bikeability training given earlier in their school career, at an age when their attitudes to road safety are easier to influence.

We advise Level 3 because it takes place on the roads, covers complex road junctions and road positioning, and provides direct experience of how all road users behave. As such, it is a useful head-start for driving. In terms of instilling responsible attitudes, in fact, it is likely to prove superior to 'pre-driver training' which tends to emphasise vehicle handling skills above all and, as a result, may help teenagers qualify more quickly, but lead to over-confidence and the risks associated with it.

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[94] Rogé, Joceline *(et al.). Mechanisms underlying cognitive conspicuity in the detection of cyclists by car drivers*. Published in Accident Analysis & Prevention. July 2017.
https://www.sciencedirect.com/science/article/abs/pii/S0001457517301343#!

[95] Beanland, V (*et al.*). *Do cyclists make better drivers? Associations between cycling experience and change detection in road scenes*. Published in Accident Analysis & Prevention. Sep 2017.
www.sciencedirect.com/science/article/abs/pii/S000145751730249X

Incentives and discounts

As an incentive to take Bikeability training, we believe those who have passed Level 3 should enjoy certain discounts on, for example, driver insurance, and be subject to less stringent conditions/discounts should Graduated Driver Licensing be introduced (see 2.2.3).

Professional drivers and driving instructors

Bikeability Level 3 training is, we think, essential for instructors and all other professional drivers, particularly of lorries and other large vehicles because of the disproportionate threat they pose to cyclists. This should be a compulsory part of the qualifying process, although suitable alternatives should be offered to people with disabilities that prevent them from cycling.

Evidently, the above would result in many more adults and children requiring Bikeability training in the best interests of road safety for cyclists, and all road users in general. We therefore call on the DfT to allocate higher levels of funding for it (see 2.8).

Unfortunately, Level 3 cycle training is not yet routinely available in many schools/colleges.

Re-testing, medical fitness and eyesight

2.2.5 The Government should consider regular re-testing and other interventions to ensure the retention of good driving habits and to remove bad and/or medically unfit drivers from the road. These processes are particularly important for older drivers.

Established drivers

With Britain a long way from 'Vision Zero', and the number of offenders convicted of bad driving still high (2.5), it is clear that many experienced drivers fall into bad and hazardous habits, make errors, forget The Highway Code, and/or neglect to update themselves on changes. In other words, they fail to maintain the standard they had to meet for their test. Inevitably, this contributes to the hostile road conditions that many pedestrians, cyclists and would-be cyclists find so intimidating.

Typically, drivers may only ever be asked to take a re-test or remedial training if they commit an offence (by which time, of course, it is too late). Likewise, they will probably only be subjected to medical screening if: they 'self-declare' themselves as unfit as required by law; if the DVLA receives a 'tip-off' about their fitness; or, again, if they offend.

Cycling UK therefore believes that the Government should introduce stronger interventions and processes to remove bad and/or unfit drivers from the road, and not leave it largely to 'self-regulation'.

Self-regulation

Self-regulation means that most drivers under 70 renew their licences every ten years without intervention from the authorities, even if they are failing to comply with the National Standard for Driving.

This is a weak system, especially in the case of older drivers (see 2.2.5), but to maximise its positive impact on road safety, the DVSA clearly needs to be proactive about supplying

comprehensive information on: renewing; self-declaration; and the health problems than compromise the ability to drive safety.

Continuous learning and refresher training

In the interests of road safety, the Government would also be well-advised to invest in a more formalised system of continuous learning and refresher training, and to take a much more active role in encouraging all established drivers to undertake it regularly. Given that this measure is likely to reduce the levels of offending, and the necessity for remedial training or re-testing following a conviction, it should prove cost-effective.

In particular (and as mentioned above), Cycling UK believes that CPC training for professional drivers should involve a compulsory cycle awareness course, or practical cycle training, with no exemptions for any drivers of HGVs, e.g. for those driving empty vehicles from site-to-site etc..

Medical fitness to drive

Inevitably, doctors and eye care professionals come across people with conditions/medication that could make their driving unsafe. Cycling UK believes that they should never hesitate to report drivers who expose others to risk to the DVLA, and rigorously follow the General Medical Council's advice.[96]

PACTS' report 'Fit to Drive?' (March 2016), looks in detail at research evidence, risks and current practice in Great Britain on fitness to drive. It covers: hearing, diabetes, epilepsy and multiple sclerosis, drugs, alcohol, fatigue, cognitive health, reduced physical strength and mobility, and personality.[97]

Eyesight

The UK's current eyesight test for drivers, carried out by a driving examiner who is not trained in optical health, is far too rudimentary and variable to assess a car driver's vision adequately.

As mentioned in the call for evidence, 'failing to look properly' is the most commonly cited contributory factor in reported collisions.[98] While this is often caused by inattention rather than poor vision, estimates still suggest that it accounts for around 2,900 road casualties a year.[99] Clearly, the current system is not robust enough to guarantee that people with poor eyesight are prohibited from driving (or from doing so without glasses / contact lenses etc.).

The test in several other EU countries covers both visual acuity and visual fields, and is conducted by a medical or optical professional. Cycling UK believes that this requirement should be

[96] GMC. *Confidentiality: patients' fitness to drive and reporting concerns to the DVLA or DVA*. April 2017. www.gmc-uk.org/Confidentiality___Patients_fitness_to_drive_and_reporting_concerns_to_DVLA_or_DVA.pdf_70063275.pdf

[97] PACTS. *Fit to Drive?* 2016. www.pacts.org.uk (reports).

[98] DfT. *Reported Road Casualties Great Britain 2014.* Sept. 2015. Table RAS 50005.

[99] RSA/Deloitte Access Economics Pty Ltd. *Fit to Drive: a cost benefit analysis of more frequent eyesight testing for UK drivers*. 2012. Deloitte Access Economics Pty Ltd. http://www.roadsafetyobservatory.com/Evidence/Details/10808

introduced to the UK, and that motorists found to have serious, uncorrectable visual defects, particularly poor peripheral vision, should not be permitted to drive.

Additionally, neither existing nor future standards should be weakened with exemptions. This is especially crucial for lorry and bus drivers who need good all-round vision so that they can see cyclists and pedestrians outside the cab.

Cycling UK shares the view of several bodies representing eye health professionals in Europe,[100] that an assessment of vision at set intervals conducted by qualified practitioners should be introduced in the UK. Up to the age of 50, this should be carried out every 10 years (i.e. timed to coincide with licence renewal); every five years after 50, and every three years after 70.

A sight test should also be compulsory after any road traffic collision, conducted initially by the police at the scene and followed up by a professional.

Cycling UK supports 'Don't Swerve a Sight Test', a campaign from the Association of Optometrists, urging drivers to have regular sight tests to make sure their vision meets the legal standard and is road safe.

www.aop.org.uk/advice-and-support/for-patients/drive-safely-dont-swerve-a-sight-test/about

Mobility support for people deemed unfit to drive

Cycling UK believes that the Government needs to support anyone of any age deemed unfit to drive by investment in and promoting alternatives to car travel (e.g. public transport, walking and cycling).

Older drivers (70+)

Great Britain's ageing population and a significant increase in the number of older drivers has, quite rightly in Cycling UK's view, attracted mounting concern over recent years. They are, as DfT says, a 'notable set of road users'.[101] So far, the Government has resisted compulsory re-testing, favouring instead self-regulation and providing advice, [102] a position that is most acutely problematic in the case of older drivers.

Although not as risky or as much at risk as younger drivers, drivers of this age are nevertheless a higher risk group and more likely to be at fault than middle-aged motorists. Collision analysis suggests that it is interacting with other road users, driving in complex environments and/or time

[100] ECOO/EROM/EUROMCONTACT. *Report on Driver Vision Screening in Europe.* June 2011. Includes tables setting out the prevailing arrangements for driver eye-testing in EU and non-EU countries. http://www.ecoo.info/wp-content/uploads/2012/07/ReportonDriverVisionScreeninginEurope.pdf
[101] DfT. *Older Car Drivers Road Safety Factsheet*. May 2018. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/706517/older-car-drivers-factsheet.pdf
[102] DfT. *Strategic Framework for Road Safety.* 2011. https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/8146/strategicframework.pdf (p57)

pressure that lead to driving errors by older people. Sensory, motor and cognitive decline (which is often age-related) are the factors that are most likely to contribute to this. [103]

Many conditions that impair cognitive health are age-related. PACTS suggests that more research needs to be done into which functions are relevant, and how to measure them reliably in relation to safe driving.[104]

Interventions

The EU 'ElderSafe' study concludes that a package of interventions is needed. They relate, for instance, to education and training, licensing and enforcement, and infrastructure and technology.[105]

Voluntary online self-assessment tools are useful too,[106] along with advice on where to find in-class and practical refresher training, and alternatives to driving.

Of course, some drivers do reflect on their personal circumstances, change their habits and avoid certain scenarios as they grow older. There are those who are also happy to make use of self-assessment tools, read guides and book re-training courses etc., and, if necessary, 'self-declare' any problems. However, the effect of such voluntary schemes is seriously compromised by the 'self-selection' factor because they are more likely to attract drivers who are concerned about their ongoing competence than those who are not – i.e. the very people who keep driving regardless of their competence to do so unless, say, a medical professional reports them to the DVLA.

Consequently, the current system fails to filter out many thousands of substandard, older drivers in the UK - possibly as many as 50,000 according to estimates.[107]

We agree with PACTS who said in 2012: "Self-regulation should not be relied upon as a method to ensure older drivers are safer until there is sufficient research that will allow the provision of evidence-led guidance and information."[108]

Formal and regular re-testing

Given the limits of self-regulation, Cycling UK supports the principle of formal and regular re-testing.

The first re-test should be required as soon as a driver reaches the age at which driving skills/alertness/hazard perception etc. typically start to decline. When this is, and the optimum frequency of subsequent re-tests, should be based on evidence. Research (2002) has already

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[103] PACTS. *It's My Choice: Safer Mobility for an Ageing Population*. March 2012. http://www.pacts.org.uk/2012/03/its-my-choice-safer-mobility-for-an-ageing-population/
[104] PACTS. *Fit to Drive?* March 2016.
[105] Polders, E *(et al.). ElderSafe: Risk and countermeasures for road traffic of Elderly in Europe.* Dec 2015. European Commission. https://ec.europa.eu/transport/road_safety/sites/roadsafety/files/pdf/studies/eldersafe_final_report.pdf
[106] RAC Foundation. *Driving Choice for the Older Motorist: the role of self-assessment tools*. Feb. 2013. http://www.racfoundation.org/assets/rac_foundation/content/downloadables/driving_choices_for_the_older_motorist_lang_parkes_and_fernandez_medina_0213.pdf
[107] RAC. *'Fit to drive?'* www.racfoundation.org/media-centre/older-drivers-wrong-choices-driving-abilities
[108] PACTS. *It's my Choice: Safer mobility for an ageing population.* PACTS, March 2012

suggested that for manoeuvres, driving performance starts dropping off after 75 on average, and deteriorates more steeply from 80 onwards.[109]

An IAM survey (2015) of people aged 55-101 (average age 69.5, half under 70, half over) suggests that more tests for drivers after the age of 70 would not trigger public outcry: [110]

- Almost 60% of respondents said drivers should take a driving test again at around the age of 70;
- 85% said that drivers should pass an eyesight test every five years after the age of 70;
- Over half said that drivers aged around 70 should be required to have a medical examination.

Evaluation of safe driving skills

Researchers in America have developed a way of testing to see whether an individual meets the standard of vision, physical functioning and cognitive skills required for safe driving.[111]

Offending drivers: re-tests, re-training and NDORS

2.2.6 A special extended re-test linked to remedial training should be compulsory for: disqualified drivers; those who have accumulated 12 points; and drivers who have committed any serious road traffic offence. Drivers whose behaviour towards cyclists has been brought to the attention of the police should be sent on an NDORS-style cycle awareness course.

Disqualification

As mentioned below in 2.5.2, Cycling UK advocates a much greater use of long driving bans for offending drivers: not only are they an effective deterrent, but they also take dangerous drivers off the roads and give the authorities the chance to correct the behaviour in question and subject the individual to re-training and re-testing.

Re-tests

Cycling UK also believes that it should be mandatory for disqualified drivers (and for drivers who have accumulated 12 points) to undergo a special extended re-test linked to remedial training; and it should certainly be compulsory after any serious road traffic offence.

TRL analysis published in 2017 found that a substantial number of offenders who were ordered to take an extended test did not regain their licence. The report also suggested that awareness of such a test was low amongst members of the judiciary.[112]

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[109] Rabbitt, P & Parker, D. *The ageing driver: A programme of research.* DfT Road Safety Research Report No. 29. 2002.
[110] IAM. Keeping Older Drivers Safe and Mobile: A survey of older drivers. 2015. www.iam.org.uk/images/stories/policy-research/olderdriversurvey.pdf
[111] Florida Atlantic University. *Driving, dementia: Assessing safe driving in high-risk older adults*. Public release. 6/7/2016. http://www.eurekalert.org/pub_releases/2016-07/fau-dd-070516.php
[112] TRL. (Smith L *et al.*). *A review of retesting and post-court education interventions for serious driving offenders*. Project report PPR764. March 2017.

National Driver Offender Re-training Schemes

There is evidence to indicate that NDORS courses influence drivers' attitudes for several weeks at least [113] and, lately, research commissioned by the DfT has demonstrated that the National Speed Awareness Course in particular: "… has a larger effect in reducing speed reoffending than the penalty points and fine associated with Fixed Penalty Notices for the types of driver offered the course ." [114]

The report also concludes that: "… it may be reasonable to anticipate that participation in the course also encourages and facilitates safer driving behaviour generally, indirectly reducing the injury collision risk."

Other research suggests Drink Drive Rehabilitation Scheme (DDRS) interventions have a marked impact on behaviour: offenders who had not attended a DDRS course were two to three times more likely to reoffend than those who had undertaken a course. This figure applied up to two years after the initial conviction. [115]

In the interests of cycle safety specifically, Cycling UK is keen to see an awareness course tailored for drivers whose behaviour towards cyclists has been brought into question, and for this to be a requirement for those who have been convicted of an offence. Ideally, this should include practical, national standard cycle training not only to improve their driving behaviour, but also to encourage them to cycle for their transport needs during and after their disqualification period.

We also believe that NDORS should be a sanction available to the courts as well as the police, but never a substitute for prosecution. We share concerns, too, that the police may be overly keen on the scheme, no doubt because following up a prosecution instead may prove very labour-intensive.

Equally, the CPS, who face serious workload pressures as well, may also decide not to prosecute in a case referred to them by the police, and send it back for NDORS treatment instead.

Changing the system: costs, bureaucracy and impact on safety

We know that some people are concerned that a number of the changes we advocate above could make the system more costly to administer and use. There are also fears that the added expense combined with making the test more rigorous could tempt more people to drive unlicensed and/or uninsured.

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https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/609873/extended-driving-tests-report.pdf

[113] Aston University Press release 28/2/2013. *'Aston academics research effectiveness of speed awareness courses.'* http://www.aston.ac.uk/news/releases/2013/january/speed-awareness-courses/

[114] Ipsos MORI Social Research Institute. *Impact Evaluation of the National Speed Awareness Course*. Final report. May 2018.

[115] LR Smith et al. *The drink/drive rehabilitation scheme: evaluation and monitoring. Final Report.* TRL. Sept 2004. https://trl.co.uk/publications

However:

- While it is true that some measures could expand the work of the motoring agencies, the extra costs may well be offset by savings in terms of casualties. Preventing just one fatal road incident in 2016 could have saved over £2 million, and preventing just one serious injury incident over £237k.[116]
- To pass a more rigorous test, learners would have to put in more supervised practice. This could reduce their crash risk and help lower their insurance premiums, making it less of a temptation to drive uninsured.
- In any case, unlicensed/uninsured driving is just one of several driving offences that should be tackled by more effective traffic law enforcement, e.g. by strengthening police numbers – see next section.

2.3 Policing the roads

Headline recommendation:

2.3 Roads policing should be strengthened, both to deter irresponsible road behaviour and to improve the quality of road crash investigations.

Supporting recommendations:

2.3.1 Roads policing should be prioritised by national government, and included in the Strategic Policing Requirement in England and Wales.
2.3.2 The police should be required to refer serious injury collisions to the CPS for a charging decision, not just those that result in a fatality.
2.3.3 The Home Office should act on the recommendations of the Transport Select Committee, and commission research into how collisions or near misses are handled by the police.
2.3.4 The National Police Chief's Council should be encouraged to follow the lead of police forces in Wales by creating a similar online reporting portal across England to facilitate the submission of dash, bike and helmet-cam footage of irresponsible road use.
2.3.5 The College of Policing's 'Investigating Road Deaths' guidance should be extended to cover serious injury cases.
2.3.6 Police forces should be encouraged to adopt operations which combine enforcement and education to promote safety for vulnerable road users.

[116] DfT. *Reported Road Casualties Great Britain: 2016*. Sept. 2017. Table RAS 60001.

Priority for roads policing

2.3.1 Roads policing should be prioritised by national government, and included in the Strategic Policing Requirement in England and Wales.

The road safety benefits of traffic policing

There is clear evidence that investing in roads policing is a highly effective way of promoting road safety, because fear of detection and prosecution is a deterrent.

A report from the European Transport Safety Council (ETSC) in 2016[117] concluded that drivers are more willing to comply with the rules if they feel they are likely to be caught and punished if they do not. The ETSC thus recommends that police controls should be sufficiently publicised, regular and long-term, unpredictable and difficult to avoid, and combine both highly visible and less visible activities.

Some examples of the road safety benefits of investing in roads policing include:

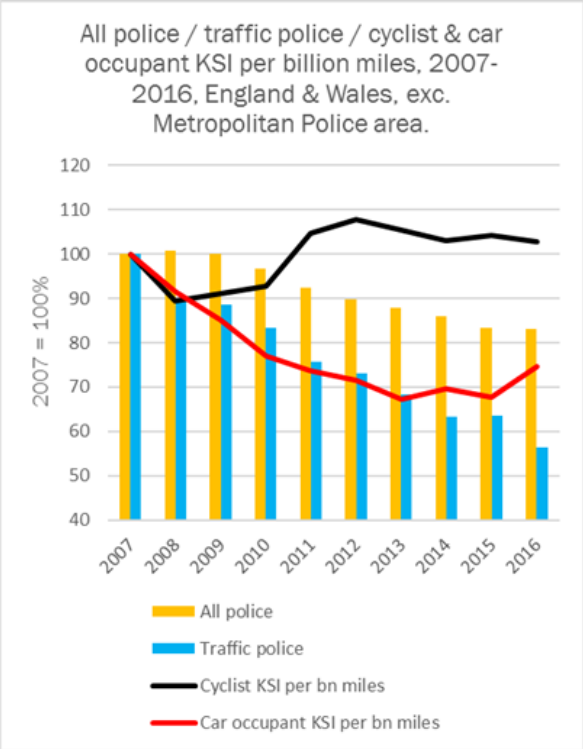
- In 2001, France had one of the worst road safety records in Europe, but after adopting a 'zero tolerance' policy over speeding offences, and substantial investment in safety cameras and road traffic policing, deaths dropped by 43% (2001–2007).[118] One survey (2004) found that 45% of French drivers said that 'fear of punishment' had made them change their behaviour, while 37% said 'better awareness of risk' had done the same.[119]
- A TRL report on the effectiveness of roads policing, commissioned by Thames Valley Police and Hampshire Constabulary, advised the forces that: "Increased levels of roads policing can reduce traffic violations and road casualties."[120]
- In Victoria, Australia, an *arrive alive!* strategy led to significant decreases in average speeds and a 16% reduction in fatalities during the first four years (2002-2005). A lower degree of tolerance for speeding offences and an emphasis on enforcement were major tactics.[121]
- Research for the former Scottish Office found that "consideration of the costs and benefits of complying with the law" affected how frequently motorists engaged in anti-social behaviour such as excessive speeding.[122]
- A government report from 2000, noted that the introduction of 30kp/h speed limits in Graz, Austria met with strong public approval, yet speeds crept back to former levels when enforcement was relaxed.[123]

[117] https://etsc.eu/how-traffic-law-enforcement-can-contribute-to-safer-roads-pin-flash-31/
[118] ETSC. *Countdown to 2010: Only two more years to act!* 2nd Road Safety PIN Report. 2008. www.etsc.eu
[119] *La Prévention Routière/Gatard. Comportement des Français au Volant: en 5 ans, ce qui a change*. April 2004.
[120] TRL. *The Effectiveness of Roads Policing*. 2015. http://www.trl.co.uk/reports-publications/report/?reportid=6997
[121] Auditor General Victoria. *Making travel safer: Victoria's speed enforcement program*. Victoria Auditor - General's Office, Melbourne, 2006. www.audit.vic.gov.au/publications/2006/20060720 - Speed - Enforcement - Program.
[122] Scottish Office. The deterrent effect of enforcement in road safety – research findings. Edinburgh, 1999. www.scotland.gov.uk/Publications/1999/01/b0d42f57-77a7-4296-af24-d47af13cc953.
[123] DETR. *New directions in speed management – a review of policy* (see paragraphs 94-96). London, 2000.

Declining traffic police numbers

Nevertheless, despite the evidence for their effectiveness, traffic police numbers fell by 44% between 2007/8 and 2016/17 in England and Wales (E&W) outside the Metropolitan Police area, down around 6,000 full time equivalent officers to under 3,400.[124] This drop is significantly higher than the c17% drop seen in the police officer workforce as a whole over this period.

The chart to the right tracks traffic police officer numbers against police strength as a whole (E&W, outside the Met), and against reported KSIs per billion miles for cyclists (an alarming overall increase) and car drivers (overall decrease). Although there are many factors that influence casualty rates for cyclists, it is not unreasonable to assume that the resources devoted to roads policing is amongst them.



Strategic Policing Requirement

When the issue of declining roads police numbers is raised, the usual response from the Government is that it is a matter for each Police and Crime Commissioner (PCC) to determine their force's priorities, and where to allocate resources. Yet, in truth, PCCs do this within a wider framework which implies that roads policing, and by analogy road safety, is not a national priority.

Under the Police Reform and Social Responsibility Act 2011, the Home Secretary's view of current national threats and the policing capabilities appropriate to counter them is set out in the 'Strategic Policing Requirement' (SPR).[125] The SPR for E&W focuses on terrorism, organised crime, cybercrime, public disorder etc., but does not mention roads policing, so decisions about how much priority to give to it are made locally.

The sad reality is that cash-strapped PCCs are reluctant to cut services identified as priorities within the SPR, so roads policing has faced disproportionate cuts compared with other police services. This situation is likely to continue unless and until the Government takes the lead and includes roads policing within the SPR.

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[124] We have excluded the Met Police because, unlike other forces, they reported a huge rise in traffic police numbers between 2013/14 and 2014/15 (up from 264 to 1,433). However, we found that this was largely due to a 'reclassification' of roles, rather than a genuine rise in the numbers of roads police officers. When combined with other forces' figures, this gave the misleading impression that overall road policing numbers had risen by c20% between 2013/14 and 2014/15. Data sources: Home Office. *Police Workforce England & Wales*, March 2017. July 2017; DfT Road Casualty GB annual reports; PQ.www.theyworkforyou.com/wrans/?id=2012-09-07b.119892.h

[125] Home Office. *The Strategic Policing Requirement*. March 2015. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/417116/The_Strategic_Policing_Requirement.pdf; Police Reform and Social Responsibility Act 2011. http://www.legislation.gov.uk/ukpga/2011/13/contents

The position in E&W compares unfavourably with that in Scotland, which saw a 4% increase in the number of officers assigned to roads policing in the year to March 2016,[126] and where road safety and road crime are priorities set out in Scotland's Annual Police Plan 2017/18.[127] (It was also given priority the year before).

Cycling UK believes that roads policing should never be omitted from the priorities set by national governments, given that:

- The number of people killed or seriously injured on the roads - 25,893 in 2016 (GB) - is much higher than the number killed or hurt by public disorder;
- Roads policing is highly effective not only for improving road safety, but also for detecting other forms of crime;[128]
- To be effective both as a road safety tool and as a means to detect other crimes, roads police need the resources to submit data to centrally co-ordinated systems (e.g. for automatic number plate recognition);
- Road crash investigation is a specialist skill and is best supported at national rather than local level;
- Victims of road crime deserve national commitment - not a 'post-code lottery' - both in terms of investigation quality and victim support.

Cycling UK accordingly recommends that roads policing should be prioritised by national government and incorporated in all overarching policing strategies and plans, including the SPR. This would strengthen the case for individual police forces to give it the priority it deserves.

Reporting serious injury collisions to the CPS

2.3.2 The police should be required to refer serious injury collisions to the CPS for a charging decision, not just those that result in a fatality.

In theory, the police in E&W have to refer all fatal road traffic cases to the CPS for a charging decision.[129] Yet they are authorised to make a charging decision in the case of:

- Any 'summary only'[130] offence (including, for example, careless driving, drink-driving, driving whilst disqualified, without a licence or without insurance); and
- Any 'either way' offence anticipated as a guilty plea and suitable for sentence in the magistrates' court, which could, potentially, include cases of dangerous driving.[131]

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[126] Response to Freedom of Information request made by Cycling UK. 26/10/2016.
[127] Police Scotland. *Annual Police Plan* 2016/17. http://www.scotland.police.uk/assets/pdf/392813/annual-police-plan-2017-18
[128] Chenery S, Henshaw C, Pease K. *Illegal Parking in Disabled Bays: A Means of Offender Targeting.* 1999. Home Office. Cited in: *Essential Evidence on a Page* by Dr Adrian Davis. No. 99. 2013. www.travelwest.info/evidence
[129] The circumstances in which the police may make a charging decision are set out in *The Director's Guidance on Charging* 2013. 5th edition, May 2013 (revised arrangements). Guidance to Police Officers and Crown Prosecutors Issued by the Director of Public Prosecution under S37A of the Police and Criminal Evidence Act 1984. (CPS).
[130] 'Summary only' offences are tried in a Magistrate's Court (or possibly a 'Traffic Court'), where there is no jury.
[131] An 'either way' offence is triable either in a Magistrate's Court (with no jury) or in the Crown Court (with jury).

By implication, therefore, if the police believe that the non-fatal driving was merely 'careless' or not culpable at all, they are not required to report the case to the CPS, even for very serious injuries. The extent of this problem is unclear, but there are concerns that this leads to a significant number of reported collisions resulting in little or no action against the driver.

Each police force is of course independent, and some take a tougher approach than others, but a widespread failure to take further action in so many cases means that too few incidents of unlawful driving are effectively penalised and prosecution is weakened as a deterrent. Moreover, the lack of a resulting criminal record means that repeat offenders can easily go undetected.

Accountability presents another problem. If a driver is not charged, the injured victim or their bereaved family often remains unclear about who took the decision and why. This makes challenging that decision particularly difficult. There are no data available to explain how, why or by whom such decisions are made, either for individual police forces, CPS areas or for the system as a whole.

Consequently, Cycling UK believes that police and prosecutors should be required to justify their charging decisions, and data about these decisions should be systematically collected in the interests of transparency and accountability (see 5.4.2 & 5.4.3). Such information could be used to help identify scope for improvements, e.g. the need for more resources; better training on investigation procedures to ensure that there is enough evidence to make a case worth referring to the CPS; and best practice reporting systems etc.

This is particularly important because roads policing, as well as being omitted from the SPR, has also been omitted from the assessment criteria used by Her Majesty's Inspectorate of Constabulary (HMIC) when reporting on the performance of police forces. PEEL assessments (police effectiveness, efficiency, and legitimacy),[132] which are published annually, deal with most other aspects of policing, but not roads policing. Again, this highlights the need for greater transparency in decision making.

It should be noted that Cycling UK, RoadPeace and other VRU groups have previously responded to consultations on HMIC's proposed inspection framework.[133] Together, we have called for roads policing to be included within the PEEL programme, a call supported by the All Party Parliamentary Cycling Group's (APPCG) report into 'Cycling and the Justice System' in May 2017 (recommendation 4). [134]

[132] https://www.justiceinspectorates.gov.uk/hmicfrs/peel-assessments/peel-2016/
[133] https://www.cyclinguk.org/sites/default/files/document/migrated/blog/joint_response_to_hmic_consultation.pdf
[134] APPCG. *Cycling and the Justice System*. May 2017. https://allpartycycling.files.wordpress.com/2017/05/appcg-justice-report-2017.pdf

Need for research into how the police handle collisions or 'near misses'

2.3.3 The Home Office should act on the recommendations of the Transport Select Committee, and commission research on how collisions or near misses are handled by the police.

We know from the findings of the Near Miss Project[135] (see 2.6.1) that 'near misses' and 'scary' incidents can deter people from cycling, regardless of whether any injury is sustained. Consequently, it is crucial for cycle safety and cycling that reports of seriously bad or aggressive driving are properly investigated, even when no injury occurs.

The importance of this, and the substantial variation between police forces regarding how reports of near misses are handled, was recognised by the Transport Select Committee (TSC) in their 2016 report on road traffic law enforcement,[136] at which Cycling UK gave both written[137] and oral evidence.[138]

> "The vulnerability of cyclists provides a particular road enforcement challenge. A "near miss" involving a cyclist can be close to a fatal accident, and "near miss" reports involving cyclists should be considered in that light. It is clear that there is a problem with the actual and subjective safety of the roads for cyclists, as well as the perception of the likely result of reporting offences to the police. The level to which cyclists feel unsafe on the roads due to a perceived failure to enforce traffic law is at odds with the Government's aim to promote cycling, and must be addressed.
>
> "We recommend that the Government's strategy should not only promote cycle use, but must do so whilst reducing the proportion of people who consider that it is too dangerous for them to cycle on the roads.
>
> "There appears to be substantial feeling that collisions or near misses involving cyclists are sometimes not effectively handled. More generally, there is great variation between police forces in how a road user is able to report near misses, and the development of best practice would be of benefit to all road users. We recommend that the Home Office commission research on how collisions or near misses are handled by the police, particularly how this varies between each force area, and how this impacts the proportion of people who believe it is too dangerous to cycle on the roads."
>
> **House of Commons Transport Select Committee: Road traffic law enforcement. March 2016.**

135 http://www.nearmiss.bike/wp-content/uploads/2014/12/Nearmissreport-final-web-2.pdf
136 https://publications.parliament.uk/pa/cm201516/cmselect/cmtrans/518/518.pdf
137 http://data.parliament.uk/WrittenEvidence/CommitteeEvidence.svc/EvidenceDocument/Transport/Road%20traffic%20law%20enforcement/written/22818.html and http://data.parliament.uk/WrittenEvidence/CommitteeEvidence.svc/EvidenceDocument/Transport/Road%20traffic%20law%20enforcement/written/25532.html
138 http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/transport-committee/road-traffic-law-enforcement/oral/25092.html

In the two years since the publication of the TSC's report, no steps appear to have been taken to implement this recommendation. Cycling UK now urges the Home Office to do so.

Reporting portal for camera footage

2.3.4 The National Police Chief's Council should be encouraged to follow the lead of police forces in Wales by creating a similar online reporting portal across England to facilitate the submission of dash, bike and helmet-cam footage of irresponsible road use.

As outlined in the previous recommendation, the TSC's report referred to the variation between police forces regarding how road users are able to report near misses. The APPCG did likewise in their 'Cycling and the Justice System' report, recommending that: "All police forces should ensure that evidence of common offences submitted by cyclists, or other witnesses, using bike or person mounted cameras or smart phones is put to use, and not ignored".

Unfortunately, many forces have no online reporting systems to allow cyclists to submit headcam or handlebar video footage of incidents, or for drivers to submit dash-cam footage. Amongst the forces that do, there is a wide variation in reporting requirements in terms of evidence required, length of recording etc. Essentially, each force is ploughing its own furrow.

By contrast, the four police forces in Wales have adopted a joined-up approach, rolling out 'Operation Snap' across Wales, with one online reporting portal and common system for reporting incidents of bad driving and submitting video evidence. [139]

Given the resource constraints on police forces, the falling number of traffic officers, and the closure of many local police stations, it is essential that people are able to log incidents online. If they are unable to do this, non-injury or slight injury cases are unlikely to be reported on any scale, let alone investigated.

Whilst some forces in England do have efficient online reporting systems, a single portal operating throughout England would standardise procedures, help clarify what evidence will be considered and is needed, reduce operating costs and promote consistency of response. Cycling UK therefore recommends the roll-out of a system similar to 'Operation Snap' across England.

Cycling UK has engaged with the provider of the portal in Wales to encourage adoption in England, but support from the Home Office and NPCC is required to progress this.

[139] https://gosafe.org/

The 'Investigating Road Deaths' manual

2.3.5 The College of Policing's 'Investigating Road Deaths' guidance should be extended to cover serious injury cases.

The College of Policing's 'Investigating Road Deaths' is the professional guidance that the police use in the UK.[140] Despite its title, the manual is also intended to cover 'life changing injuries', but there is no obligation to follow the guidance in cases where serious injuries have been sustained, but which are not 'life changing'.

This leads to inconsistency in the standard of collision investigations, and presents particular problems in collisions involving VRUs because of their susceptibility to injury, and the fact that they may have to depend almost entirely on the police to find out what happened. For example, a cyclist might be hit from behind, and/or suffer amnesia afterwards, etc.

Some of the common problems with collision investigations include:

- Not investigating a serious injury case as carefully as a fatal incident;
- Not investigating fatal injuries adequately, due to the initial belief that the victim's injuries would not prove fatal;
- Not gathering evidence at the scene of the collision, or promptly afterwards, either from the driver, the victim(s) or other witnesses;
- Not investigating potential ancillary offences, e.g. mobile phone use or defective eyesight.
- Not following up witnesses who provided contact details at the scene, and not calling on them to give evidence in court;
- Relying so heavily on the presence of witnesses at the scene and their statements that they set too little store on other forms of evidence, e.g. CCTV footage or the results of an examination of the site.

Cycling UK recommends extending the guidance, and changing the name to 'Investigating Road Crashes' to help ensure that it is also always followed for non-fatal injuries.

Proactive enforcement/education operations

2.3.6 Police forces should be encouraged to adopt operations which combine enforcement and education to promote safety for vulnerable road users.

As mentioned at recommendation 2.1.3, education and enforcement form a winning partnership as far as road safety is concerned, a fact that is well-demonstrated by West Midlands Police's 'Operation Close Pass' targeted at drivers who overtake cyclists too closely.

[140] *The Authorised Professional Practice on Investigating Road Deaths* (College of Policing) superseded ACPO's *Road Death Investigation Manual* (RDIM) in 2014.

Operations of this nature, combining the threat of prosecution with education and awareness, have the capacity to influence behaviour and thus provide road safety benefits.

Cycling UK recommends that police forces are encouraged to mount similar public-facing initiatives. As a result, roads policing would no longer merely focus on reacting to collisions, but work proactively to stop them happening in the first place too.

2.4 Other enforcement agencies and regulatory bodies

Headline recommendation:

2.4 Ensure that other bodies with an enforcement and/or regulation role in road safety play their part effectively.

Supporting recommendations:

2.4.1 The Health and Safety Executive (HSE) should take a more proactive line over work-related road safety and should receive adequate funds to do so.
2.4.2 The Government should establish a national scheme to promote collaboration between responsible agencies (e.g. police, DVSA, local authorities and the HSE), based on the model of TfL's London Freight Enforcement Partnership.
2.4.3 To enable Traffic Commissioners to use their powers effectively to regulate irresponsible HGV operators and drivers, they should be adequately resourced with systems introduced to ensure timely notification of concerns and investigations.

The Health and Safety Executive

2.4.1 The Health and Safety Executive (HSE) should take a more proactive line over work-related road safety and should receive adequate funds to do so.

In 2015, the Transport Safety Commission published the 'Who should be responsible for road safety' report, expressing disappointment at HSE's approach to work-related road safety.[141]

They recommended that the HSE change its policy so that employers have to report when someone driving or riding for work injures a member of the public, and identified that this would help ensure that those injuries were managed and investigated in a commensurate manner to those sustained in a fixed workplace.

> "Around 30% of road deaths occur during the course of employment and greatly exceed those occurring in the workplace, yet the Health and Safety Executive's priorities do not include work-related road safety."
>
> **Professor Stephen Glaister, Co-Chair Transport Safety Commission Inquiry Report**

[141] http://www.pacts.org.uk/2015/03/transport-safety-commission-inquiry-report-published/

The HSE has jurisdiction to prosecute offences under the Health and Safety at Work Act (HSWA) section 3, which provides a general duty on employers to conduct their business in such a way as to ensure, as far as reasonably practicable, that members of the public who may be affected thereby are not exposed to risks to their health and safety.[142]

In theory, this means that the HSE could and should have a role in enforcing work-related road safety. In practice, however, the HSE's policy is that road traffic law should be enforced by the Police and the Driver and Vehicle Standards Agency (DVSA), ignoring the fact that safe work practices for commercial drivers require operational management systems and casualty reduction through learning from past mistakes. Accordingly, the HSE does not generally become involved in road traffic incidents, unless they are in specific work-related situations (e.g. refuse collection, hedge cutting and similar).

HSE's unwillingness to involve itself in cases where there are clear breaches of health and safety legislation, simply because they occur off-site on a public road, means that work-related road safety is not prioritised. This is demonstrated by the case study below, regarding the HSE's failure to prosecute Fry's Logistics Limited (Frys).[143]

[142] http://www.legislation.gov.uk/ukpga/1974/37/section/3
[143] For more, see Cycling UK's news releases: https://www.cyclinguk.org/news/20151223-%e2%80%98policy%e2%80%99-prevents-prosecution-frys-charity-cyclists%e2%80%99-deaths / https://www.cyclinguk.org/news/20150608-reining-rogue-goods-vehicle-operators / https://www.cyclinguk.org/news/20151013-collaborating-unsafe-hgvs

Case study - the failure to prosecute Frys

Andrew McMenigall and Toby Wallace were on a charity cycle ride in July 2013 when they were killed near Newquay: HGV driver Robert Palmer drove into them after falling asleep at the wheel.

Palmer pleaded guilty at Truro Crown Court in September 2014 and was given a prison sentence for causing their deaths by dangerous driving, and for a separate offence of dangerous driving seven weeks later when, again in the course of his employment by Frys, he drove into the rear of another vehicle.

Frys regularly allowed Palmer to drive while exhausted after working consecutive shifts, repairing vehicles in their yard followed by a shift driving an HGV.

In November 2016, the Traffic Commissioner revoked Frys' HGV operator's licence, saying the company put profit before the law with its lack of regard to the rules. The Commissioner said that this contributed to Andrew and Toby's deaths, adding that the case was by far the worst she had seen since starting as a Traffic Commissioner in 2007.

She also disqualified Transport Manager Mark Fry, the sole director of Frys, from acting as a transport manager for 10 years, and both Frys and Fry himself from holding an operator's licence or being involved in the management of HGVs for the same period. The Commissioner stated that this was "the longest period of disqualification [she] had imposed by far" in her role.

The missing part of the enforcement package was the failure to prosecute Frys as an employer. This was because the HSE declined to investigate, stating that it was "not within their protocols for prosecution".

Cycling UK wrote to the HSE, referring them to their jurisdiction under the HSWA. HSE response indicated that:

- As a regulator, they have developed policies to guide them on when to investigate;
- The policies are in place to help them decide which incidents to investigate regarding their priorities and available resources;
- It is not their policy to seek to enforce Health and Safety at Work legislation where public safety is adequately protected by more specific and detailed law enforced by another authority;
- In relation to road traffic incidents, their policy is to focus on specific work activities (e.g. hedge cutting and refuse collection), and vehicles moving in and out of work premises.

Nevertheless, Cycling UK argues that investigating the death of two members of the public on a public road, caused by a driver whose employer knowingly allowed him to work long hours and drive while exhausted, should have been a priority for the HSE.

More generally, Cycling UK recommends that the HSE should be required to prioritise their road safety role in any case, to pursue it proactively, and be given the resources to do so. Its policies and advice to employers should also make it clear that they need to consider not only the road risks faced by employees themselves, but also the dangers they may impose on other road users.

Collaboration between responsible agencies

2.4.2 The Government should establish a national scheme to promote collaboration between responsible agencies (e.g. police, DVSA, local authorities and the HSE), based on the model of TfL's London Freight Enforcement Partnership.

In 2015, TfL, City of London Police, the Met Police Service and DVSA set up the London Freight Enforcement Partnership (LFEP). Building on existing initiatives like the Industrial HGV Task Force, LFEP is a joint intelligence-led scheme to eliminate rogue freight operators.

Sharing intelligence between agencies, along with conducting joint enforcement operations that involve both the police and the DVSA, has enabled the LFEP to target the least compliant freight operators. This is of particular relevance to VRUs given the disproportionate risk HGVs present to cyclists and pedestrians (see 4.1).

Celebrating the partnership's second anniversary in November 2017, TfL announced that it had: [144]

- Stopped and checked 33,000 freight vehicles;
- Issued 9,114 fixed penalty notices and traffic offence reports, along with 5,600 mechanical prohibitions to operators with seriously defective vehicles;
- Seen 106 arrests, 221 vehicles seized, and 12 operator licences revoked.

Having accepted Cycling UK's case for the LFEP model to be implemented throughout the country, the Transport Select Committee (TSC) recommended that "the Government assess the impact of intelligence sharing and joint working in London and the South East, and ensure that it is possible for information and technology to be used effectively by the DVSA across the country in order to improve compliance." [145]

Likewise, the APPCG recommended that the Government and other local authorities adopt similar partnerships in other parts of the country to counter the risk posed by illegal freight operations. [146]

Despite these recommendations, and the LFEP's continued success, the model has not been adopted beyond London. Cycling UK recommends that the Government takes the lead either to establish a national scheme based on LFEP's model or ensure that similar schemes are adopted elsewhere.

[144] https://tfl.gov.uk/info-for/media/press-releases/2017/november/partnership-checks-more-than-33-000-vehicles-to-keep-london-s-roads-safe
[145] Recommendation 33. https://publications.parliament.uk/pa/cm201516/cmselect/cmtrans/518/518.pdf
[146] Recommendation 5. https://allpartycycling.files.wordpress.com/2017/05/appcg-justice-report-2017.pdf

Traffic Commissioners

2.4.3 To enable Traffic Commissioners to use their powers effectively to regulate irresponsible HGV operators and drivers, they should be adequately resourced with systems introduced to ensure timely notification of concerns and investigations.

There are only seven Traffic Commissioners (TCs) covering England and Wales to fulfil a role which involves:

- The licensing of the operators of HGVs and of buses and coaches (public service vehicles or PSVs);
- The registration of local bus services;
- Granting vocational licences and taking action against drivers of HGVs and PSVs.

When HGVs are involved in serious injury or fatal collisions, the subsequent focus is often largely on the driver and/or the victim, rather than on the operator who employed the driver and supplied the vehicle. However, it is important not to forget the responsibility of operators who, for example, employ unfit or unqualified drivers (see the case of Frys above), and/or allow unsafe vehicles onto the roads.

The TCs' role in regulating operators' licences is therefore crucially important, yet their ability to act is compromised by lack of resources, and/or simply because they are not being notified. For example:

- The driver of the lorry that killed cyclist Alan Neve in London (2013) was unlicensed and had a string of previous convictions. The TC, however, was not notified of this until after these facts emerged at trial, nearly two years after Mr Neve's death.[147] Only then could the TC act to revoke the operator's licences of the two transport managers/owners of the company that had hired the driver.
- It was not until the end of 2015 that the TC took action against Frys, the operator of the lorry that killed two charity cyclists in Cornwall in July 2013 (see 2.4.1). The driver had worked excessive hours and was involved in a second collision before he was convicted.

To enable TCs to use their powers effectively, and in a timely manner, to act against irresponsible operators and drivers, Cycling UK recommends that systems are introduced to ensure that the Commissioners are systematically notified of concerns / investigations into drivers and operators, and properly resourced to undertake their role.

[147] https://www.cyclinguk.org/news/20150608-reining-rogue-goods-vehicle-operators

2.5 Road traffic offences and penalties

Headline recommendation:

2.5 Carry out a comprehensive review of road traffic offences and penalties.

Supporting recommendations:

2.5.1 The legal definitions of 'careless' and 'dangerous' driving, and their associated penalties, should be reviewed or replaced by an alternative legal framework.
2.5.2 Greater use should be made of substantial driving bans in cases where the driver's actions have caused harm but where they are not obviously a dangerous person who needs to be locked up for the public's protection. Convicted drivers should not be able to routinely evade driving bans by claiming this would cause 'exceptional hardship'.
2.5.3 A new offence of causing death or serious injury by car-dooring should be introduced.
2.5.4 There should be increased penalties for 'failing to stop' offences where the driver must or should have known there was a possibility of a serious or fatal injury.
2.5.5 Part 6 of the Traffic Management Act should be commenced, so that local authorities can take on responsibility for enforcement action against those who infringe mandatory cycle lanes and commit other 'moving traffic offences'.

Why we need a full review of road traffic offences and penalties

Road safety laws (RSL) are aimed at reducing casualties and improving road safety. They also set the legal framework for dealing with irresponsible behaviour by all road users.

The effectiveness of RSL is of particular importance to VRUs because, as often discussed above, irresponsible driving presents a disproportionate threat to pedestrians and cyclists and puts people off travelling by foot or cycle, despite their health and environmental benefits.

In other aspects of our lives, high safety standards are expected where there are inherent risks (e.g. rail and air travel, in the workplace or on construction sites), and the law creates strong obligations to avoid or minimise hazards. Despite the fact that driving a motorised vehicle on a public road presents a risk to others, the cultural attitude to that risk is different. Lapses of concentration are regularly dismissed as 'accidents' or 'carelessness' rather than something that is avoidable, reflecting the attitude that an absence of care and the resultant collisions are inevitable.

The legal framework should instead make it clearer that it is unacceptable to endanger other road users, and that road crime is real crime.

Cycling UK has therefore long argued that a full review of road traffic offences and penalties is required, not least because the current legal definitions for 'careless' and 'dangerous' driving have led to confusion and inconsistency.

Limited action from the Ministry of Justice

The need for such a review appeared to be acknowledged four years ago, when the then Justice Secretary Chris Grayling MP announced the Government's intention to launch "a full review of all driving offences and penalties", stating that he "wanted to make our roads safer".[148] No such review has been undertaken.

In December 2016, the Ministry of Justice (MoJ) did launch a limited consultation focussed on specific driving offences and penalties relating to causing death or serious injury.[149] However, the questions it asked, and the scope of the review, were limited to whether:

- There should be a new offence of causing serious injury by careless driving and, if so, what the maximum penalty for the offence should be;
- The maximum penalty for causing death by dangerous driving / death by careless driving under the influence of drink or drugs should be extended to life imprisonment;
- Longer minimum periods of disqualification from driving in causing death by driving cases should be considered;
- There should be changes to other causing death or serious injury by driving offences.

Cycling UK's submissions to the consultation[150] outlined the need for a more comprehensive review of all road traffic offences and penalties, highlighting four concerns which were not directly addressed within the consultation questions, but should have been. These are:

- The need for a holistic review of the distinction between 'careless' and 'dangerous' driving;
- The declining use of driving disqualifications as a penalty, and the need for disqualification to be used more frequently, and for longer periods;
- The need to review both the scope of and penalties for the offence of 'car-dooring' (£1,000 maximum fine [151]), where it is an offence under construction and use regulations to open, or cause or permit to be opened, a car door so as to injure or endanger anyone;[152]
- The available penalties for the offence of failing to stop after or report accidents.[153]

The MoJ's response to the consultation (October 2017), set out its proposals to increase maximum penalties for the two 'causing death by driving offences' referred to, and to introduce a new offence of 'causing serious injury by careless driving'.[154]

No Bill, though, has yet been presented to Parliament or issued in draft form for consultation. In any case, Cycling UK argues that the MoJ's proposals would only have an impact on sentencing in

148 https://www.gov.uk/government/news/justice-for-victims-of-banned-drivers
149 https://consult.justice.gov.uk/digital-communications/driving-offences-causing-death-or-serious-injury/
150 https://www.cyclinguk.org/sites/default/files/document/migrated/blog/moj_consultation_response_on_motoring_offences_and_penalties.pdf
151 http://www.legislation.gov.uk/ukpga/1988/52/section/42
152 http://www.legislation.gov.uk/uksi/1986/1078/regulation/105/made
153 http://www.legislation.gov.uk/ukpga/1988/52/section/170
154 https://www.gov.uk/government/consultations/driving-offences-and-penalties-relating-to-causing-death-or-serious-injury

a relatively small number of the most serious cases that come before the courts each year. What they would not do is address the common problems that irresponsible driving causes daily on our roads; nor would they address the wider problems with RSL in more typical cases - frequent examples of which occupy far more of the police and courts' time and discourage people from cycling.

Although Cycling UK's key recommendation is that a comprehensive review of *all* road traffic offences and penalties is needed, we focus here on the four concerns we highlighted in our submissions to the MoJ and have set out above. Before doing so, however, it is necessary to point out the apparent disconnect between the MoJ, and its role / remit regarding road traffic offences, and the DfT's road safety role.

The need for the MoJ and DfT to connect over revisions to the wider legal framework

As already identified, the MoJ proposes to introduce a new offence of 'causing serious injury by careless driving', without having consulted on or carried out a review to determine whether the definitions of 'careless' and 'dangerous' driving need to be revised. Their plan is to bolt on a new offence to an existing legal framework, regardless of whether that legal framework is working.

Separately, the DfT announced in September 2017 that it intended to carry out an urgent review into whether new offences equivalent to causing death or serious injury by dangerous driving should be introduced for cyclists.[155] The consultation on this is expected to commence imminently yet, once again, there appears to be no intention to consider if the 'careless' and 'dangerous' distinction and definitions, whether applied to driving or cycling, create an effective legal framework for categorising and dealing with irresponsible behaviour by road users that endangers others.

Thus, the MoJ is looking at a new careless driving offence and penalties for the worst careless and dangerous driving offences; while the DfT is looking at careless and dangerous cycling offences.

The fact is, though, that rather than concentrating merely on what new offences could or should be added, both departments need to be working together on a holistic review. This must start with the most critical question of all: is the legal framework correct and fit for purpose in the first place?

'Careless' and 'dangerous' driving offences: not fit for purpose

2.5.1 The legal definitions of 'careless' and 'dangerous' driving, and their associated penalties, should be reviewed or replaced by an alternative legal framework.

The current distinction between 'careless'[156] and 'dangerous' driving[157] offences was introduced by the 1988 Road Traffic Act. This sought to distinguish between the two categories of offence on the

[155] https://www.gov.uk/government/news/government-launches-urgent-review-into-cycle-safety
[156] http://www.legislation.gov.uk/ukpga/1988/52/section/3ZA
[157] http://www.legislation.gov.uk/ukpga/1988/52/section/2A

basis of the *standard of driving*, and specifically whether it fell 'below' or 'far below' the standard that would be expected of a notional 'competent and careful driver'.

The reasons behind this step were sound and justifiable. Before the 1988 Act, it was the driver's *state of mind* (*'mens rea'*) that determined whether their driving was 'careless' or 'reckless' - the two categories of bad driving offence at the time. Determining a driver's state of mind, however, caused problems, which was why the 1988 Act categorised offences on the basis of the objective *standard of the driving* instead, and whether it would cause 'danger' foreseeable by a 'competent and careful driver'. As a result, the driver's state of mind was no longer supposed to be relevant.

But, with the standard of driving as the key determinant, the *consequences* of an act of bad driving - i.e. principally whether a victim dies or survives – then become legally irrelevant in deciding whether it should be prosecuted as a 'careless' or 'dangerous' offence. This caused such concern, however, that a new offence of 'causing death by *careless* driving' was introduced in 2008 to accompany the existing offence of 'death by *dangerous* driving'.[158] This enabled 'careless' driving with fatal consequences to be charged and sentenced as a more serious offence.

Once the issue of whether the victim of a collision survives or not became relevant to the classification of both 'careless' and 'dangerous' driving offences (with more serious 'death by' categories for each), the question then arose about what to do with 'dangerous' driving cases where the victim survived but was perhaps left with life-changing injuries. This led to the introduction of the new offence of 'causing *serious injury* by dangerous driving' via the Legal Aid, Sentencing and Punishment of Offenders Act 2012.

Inevitably, this move led in turn to the question of what to do in cases where it was 'careless' driving that caused serious injury - hence the MoJ's recent consultation and the decision to introduce a new offence of 'causing *serious injury* by *careless* driving', as and when parliamentary time allows.

It is no surprise that the MoJ concluded that there is a gap in the law that needs to be filled with a new offence: it is illogical to consider death relevant in both 'careless' and 'dangerous' charges, but serious injury relevant only in 'dangerous' driving cases. Also, this creates a huge disparity in sentencing because whether a victim dies or happens to survive - even if they are left wheelchair-bound and reliant on carers for life - makes a significant difference to the maximum penalties available.

The MoJ's decision to create a further bad driving offence categorised by consequences is thus the latest in a series of attempts to allay ongoing concerns about making the severity of a victim's injuries legally irrelevant.

In Cycling UK's view, though, bolting on yet another offence to a chronically problematic legal framework makes no sense and may well compound its difficulties.

[158] http://www.legislation.gov.uk/ukpga/1988/52/section/2B

A case in point here is the above-mentioned introduction of the 'death by *careless* driving' offence in 2008. This charge was only expected to be used occasionally, but more people are now taken to court for it than for 'causing death by *dangerous* driving'. In E&W: [159]

- By and large, each year since 2010, for causing death charges, the number of people prosecuted for 'careless' driving has exceeded the number prosecuted for 'dangerous' driving: in 2010, 196 people were prosecuted for 'causing death by dangerous driving', and 285 for 'careless'; in 2017, 225 were prosecuted for 'dangerous' and 237 for 'careless' driving. (The gap does seem to be decreasing, though, but the only year since 2010 where 'death by dangerous' exceeded 'death by careless' was 2016: 229 to 215 respectively).
- Between 2008 and 2017, the number of people charged with 'causing death by dangerous driving' as a principal offence dropped by 15% (266 in 2008 and 225 in 2017).

The new charge, then, saw driving that causes obviously foreseeable *danger* become more likely to be dismissed as merely '*careless*'. In effect, therefore, it downgraded the threshold between 'dangerous' and 'careless' driving, even though the legal definitions did not change. This caused confusion over the correct definitions and inconsistency in their application and interpretation. This outcome is entirely at odds with the need to promote road safety.

One of the reasons for this downgrading (which also applies in non-fatal cases) is just how difficult it seems to be to avoid inferring a driver's state of mind when deciding between 'careless' and 'dangerous' charges, despite the legislative intent of the 1988 Act.

For example, as a matter of law, if a driver unintentionally crosses a white line and hits another vehicle, their momentary lapse of attention should be irrelevant to the charging decision: it is, supposedly, the standard of driving that counts. Viewed objectively in this light, crossing a white line and driving into another vehicle must be driving below the standard of a competent and careful driver (i.e. 'careless'); and, indeed, it is in fact difficult to dispute that such an act is not *far* below that standard (i.e. 'dangerous').

In the real world, however, charging decisions are not informed so much by the standard of driving, as by the likely sentencing outcome, and the knowledge that juries can, perhaps understandably, empathise with otherwise law-abiding people who may have made a momentary error with catastrophic consequences. Juries, in other words, may well be swayed by the driver's apparent state of mind and favour a 'careless' charge, even in cases where the driving in question, when viewed objectively, caused obviously foreseeable *danger*.

It can therefore be difficult for police and prosecutors to disregard drivers' intentions when deciding whether a charge has a realistic chance of succeeding in court, and for magistrates and juries to disregard them when determining guilt or innocence.

Also, while it is often claimed that the legal tests for determining whether someone has driven carelessly or dangerously are *objective*, the reality is that in both cases the test involves assessing

[159] Ministry of Justice. Criminal Justice Figures. *Criminal Justice Statistics Quarterly Motoring Data Tool.* May 2018. https://www.gov.uk/government/collections/criminal-justice-statistics

the extent to which a driver has fallen short of the standards expected of a careful and competent driver – an exercise that involves considerable *subjectivity*: what one juror thinks is far below the standard and therefore dangerous, another might think is an acceptable mistake; you say 'dangerous', I say 'careless', and someone else says it's neither, just an 'accident'.

For example, looking but failing to see a cyclist at a junction is inherently dangerous, but such behaviour is often dismissed as 'careless', even though most people would agree that it falls *far* below the standard to be expected of a competent and careful driver. Sadly, there are many examples of this, some of which we list in our briefing on traffic law and enforcement.[160]

Improving the legal framework

Cycling UK believes that the legal framework needs to change to eliminate the element of subjectivity and stop driving that causes obvious danger from being dismissed as merely 'careless'. This could broadly be achieved by either:

- Retaining the current distinction between two levels of bad driving, but re-naming the lower tier offence (e.g. 'unsafe' or 'negligent' driving instead of 'careless' driving), and;
- In addition, **revising the definition of 'dangerous' driving in unambiguously objective terms** (i.e. relating to the manner of the driving, not the mind-set of the driver). As explained, this was the 1988 Act's aim, but it has not worked in practice. A possible definition for dangerous driving would be: "Driving that gives rise to a reasonably foreseeable risk of non-trivial injury to any person, or of serious damage to property, where this risk would be reasonably foreseeable by a driver who was driving competently and carefully."

Or

- **Reverting to a two-tier distinction between 'careless' and 'reckless'**, i.e. reintroducing the state of mind ('*mens rea*') of the driver, but avoiding the problems that existed before the 1988 Act by making it clear that the court is entitled to infer the state of mind of the driver *from the manner of the driving*. In this case, it would also be necessary to introduce much tougher penalties for acts of 'careless' driving that caused actual danger to signal the social unacceptability of lapses of attention when undertaking a task as safety-critical as driving. The two offences could be named 'negligent' and 'grossly negligent' driving, reflecting similar distinctions in other areas of the law (e.g. manslaughter).

And in either case:

- **Introducing a clearer objective test of the standard of driving expected**. Whether or not *mens rea* is reintroduced, the standard of driving should be measured against a clear, objective test. This could, perhaps, be based around the minimum standard required to pass the driving test, a well-known and accepted standard that has been developed to assess the competency to drive safely.

[160] https://www.cyclinguk.org/sites/default/files/document/migrated/info/traffic-law-enforcementoverview4bbrf.pdf See p13.

To sum up, the lack of a coherent legal framework within which to classify and define irresponsible behaviour and bad driving has direct repercussions for road safety. It leads to dangerous driving behaviour being minimised and a level of acceptance of the consequences which is inconsistent with a 'Safe systems' approach. It leaves VRUs in particular feeling less confident than they deserve to be that the justice system will robustly challenge the kind of irresponsible behaviour that endangers them. This does nothing to make them feel that walking and cycling are safe.

This is why Cycling UK has repeatedly argued for a comprehensive review of the definition, classification, and sentencing options for all bad driving offences currently charged as 'careless' or 'dangerous', and opposes the serial addition of new offences to the existing framework in an area of law that has proved so problematic for many years.

On 22 May, the Home Office (HO) announced plans to amend the definitions for offences of 'careless' and 'dangerous' driving to take account of the training and experience of police drivers, launching a consultation with a question relating to the standard of the careful and competent driver, but *only in relation to police drivers*.

Rather than conducting a cross-departmental review of all road traffic offences currently categorised as 'careless' and 'dangerous', asking whether those definitions are indeed fit for purpose, the HO will become the **third** government department to independently focus on one part of a bigger problem:

- As discussed, the MoJ has recently consulted on whether to add one new offence of 'causing serious injury by careless driving'.
- The DfT is about to commence a consultation on new 'careless' and 'dangerous' cycling offences where death or serious injury is caused, but looking purely at cyclists.

With the new HO consultation, that will be three departments looking at different aspects of 'careless' and 'dangerous' behaviour on our roads, but none of them is carrying out the much-needed comprehensive review looking at the definitions for these offences.

Cycling UK would simply ask, why wouldn't you all work together rather than independently, and have one comprehensive review?

https://www.gov.uk/government/news/consultation-to-give-police-greater-confidence-to-pursue-suspects

Disqualification

2.5.2 Greater use should be made of substantial driving bans in cases where the driver's actions have caused harm but where they are not obviously a dangerous person who needs to be locked up for the public's protection. Convicted drivers should not be able to routinely evade driving bans by claiming this would cause 'exceptional hardship'.

For some time, Cycling UK has both lobbied the MoJ and campaigned for the more frequent use of driving disqualifications for longer periods. The justification for this is the need to protect the public, which should always come before the perceived inconvenience caused by a driving ban. As

such, the focus on disqualification should not be limited to the most serious cases where death is caused: minimum disqualification periods should also be considered for other more common offences and repeat offenders.

Before detailing the statistics showing the declining use of driving disqualifications, it is helpful to set the context by referring to the case of cyclist Lee Martin. This clearly demonstrates why minimum disqualifications for repeat offenders,[161] the totting up system,[162] and the 'exceptional hardship' loophole[163] (which allows offenders to avoid a totting up disqualification), must be reviewed:

Lee Martin was killed in July 2015 by Christopher Gard,[164] who drove into him while texting at the wheel of his van. Gard was convicted of causing Lee's death by dangerous driving.

Tragically, six weeks before he killed Lee, Gard appeared in a local magistrates' court facing a totting up disqualification. He had six previous convictions for driving whilst using his mobile phone, and had also escaped prosecution twice for the same offence by attending a driver re-training course in lieu of prosecution. He still avoided a disqualification by pleading 'exceptional hardship', namely the consequences for his family if he could not drive.

Gard should have been disqualified before he went on to cause Lee's death. Having been caught driving irresponsibly **eight** times, he should not have been given a ninth chance before permission to drive was suspended. Lee's brother Darrell is a supporter of Cycling UK's 'Cycle safety: make it simple' recommendations.

"Why wouldn't you change a system that allows people convicted of dangerous driving to get back on the road before it's proven that they're safe to drive?

"Too often, drivers who have committed serious offences with terrible consequences face ridiculously lenient penalties, and are free again to drive within a few weeks or months."

Darrell Martin, brother of Lee Martin.

161 http://www.legislation.gov.uk/ukpga/1988/53/section/35
162 https://www.gov.uk/driving-disqualifications
163 http://www.motoringlawdefence.com/points.html
164 https://www.cyclinguk.org/news/magistrates-allowed-texting-driver-keep-licence-lee-lost-life

To highlight the declining use of disqualification powers:

- As of January 2017, 9,909 drivers were still able to drive even though they had more than 12 points on their driving licence,[165] the majority of whom had avoided a totting up disqualification by successfully pleading 'exceptional hardship'. Cycling UK collates this figure annually to update its legal framework and sentencing policy briefing.[166] Every year the number of people still able to drive with more than 12 points on their licence increases.
- In England and Wales (E&W), the number of drivers disqualified by the courts for a motoring offence fell from 134,817 in 2007 to just 58,099 in 2017, a drop of 57%.[167]
- For offences where bans are supposedly obligatory, the number of people escaping disqualification has more than doubled from 3% to 7% (2005 – 2015, E&W). Where bans are discretionary (as with most endorseable offences), the proportion receiving a ban has declined from almost 13% to less than 3%.[168]
- In 2017 (E&W), 93.5% of drivers sentenced for killing another road user were disqualified, compared to 98.1% in 2005.[169]

These statistics are merely a sample of a series which identify declining use of disqualifications for all motoring offences, for shorter periods, and an increase in drivers avoiding disqualification by arguing special reasons or 'exceptional hardship'. In Cycling UK's view, this increasing reluctance to remove driving licences from those who endanger others necessitates a comprehensive review of the laws on driving disqualification, primarily to consider whether road safety would be improved by:

- **Re-drafting the existing legislation that permits drivers to argue 'exceptional hardship' to retain their driving licence and avoid a disqualification**. One option would be to remove the exceptional hardship 'defence' completely. Another would be to more tightly define the remit of this 'defence'. The predictable inconvenience consequent upon losing your licence should not justify a repeat motoring offender avoiding a disqualification. This is exactly what happened in the Christopher Gard case.
- **A similar re-drafting of the legislation which permits 'special reasons' to be advanced to avoid supposedly obligatory disqualification.**[170] A 'special reasons' defence was meant to be something exceptional. It was never intended to be a mechanism to allow over 7% of drivers facing obligatory bans for serious offences to avoid disqualification.
- **The introduction of further obligatory disqualification periods for other bad driving offences**, for example, speeding at over twice the speed limit, or for a second careless driving offence within a five-year period.

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[165] DVLA answer to a Freedom of Information follow-up request made by Cycling UK, June 2017.
[166] https://www.cyclinguk.org/sites/default/files/document/2017/07/legal-framework-sentencing_4d_brf.pdf
[167] Ministry of Justice. *Criminal Justice Statistics Quarterly*. Dec 2017. May 2018. Overview Tables A.6.5A
[168] For this, and further facts and commentary on driving bans, see RoadPeace's briefing *Driving bans given at court*. Dec 2016
[169] Ministry of Justice. *Criminal Justice Statistics Quarterly* Dec 2017. May 2018. Calculated from Overview Tables A.6.3A and A6.5A
[170] http://drinkdrivingdefences.co.uk/mitigation/

- **Longer minimum bans for those offences subject to existing obligatory bans.**
- **Extending the requirements for drivers to be ordered to undertake an extended re-test before recovering their licence following a disqualification.**[171] Currently, the courts require only a very small proportion of the drivers they ban directly to take an extended test before they can recover their licence (7% in 2016, E&W – 4,499 out of 62,822).[172]
- **Introducing driver re-training as a sentencing option**, to allow courts to order drivers to undertake a re-training course as part of the sentencing package (currently driver re-training courses are merely an alternative to prosecution offered by the police, not a sentencing option).

The fundamental priority for disqualification powers, and the use of disqualification as a sentencing option, is that there must be a legislative signal that driving is not an entitlement, but merely a revocable privilege; and that licence to do so should be removed for public protection where driving falls below the required standard.

The contrast between the way the courts deal with the disqualification of offenders in driving cases and those in animal neglect cases demonstrates how illogical their current approach is: someone who fails to seek medical attention for their pets is likely to face a lengthy animal ownership disqualification order on conviction for neglect;[173] but someone who endangers other road users through neglect is far less likely to be banned from driving. Animal welfare trumps the pet owner's desire to own a pet, whereas the need to drive seems to trump road safety and public protection.

It is crucially important that our key recommendation for a review of road traffic offences and penalties generally, and this specific recommendation regarding disqualification powers, are not simply passed over by the DfT for consideration solely by the MoJ. Road safety falls within the DfT's remit, and this consultation on cycling and walking safety makes it clear that the perception of safety is important if the ambition to increase active travel is to be fulfilled.

If irresponsible drivers do not get the message that they will very probably be banned for texting at the wheel or repeat speeding offences, they are less likely to change their behaviour. If other road users, particularly cyclists and pedestrians, see drivers breaking the rules without apparent consequences, they are less likely to feel safe sharing the roads with them, and more likely to perceive active travel as unsafe.

In sum, effective laws are inextricably linked to road safety, and the laws on driving disqualification are ineffective.

[171] https://www.gov.uk/driving-disqualifications/disqualification-until-test-pass-or-extended-test-pass
[172] Ministry of Justice. *Criminal Justice Statistics Quarterly* Dec 2016. May 2017. Overview Table A.6.6A. (link above
[173] http://www.legislation.gov.uk/ukpga/2006/45/section/34

An offence for 'car-dooring'

2.5.3 A new offence of causing death or serious injury by car-dooring should be introduced.

Cycling UK has also lobbied and campaigned for a review of the scope of and penalties for the offence of 'car-dooring', where it is an offence under construction and use regulations to open, or cause or permit to be opened, a car door so as to injure or endanger anyone.

Being knocked off whilst cycling when someone opens their car door without looking is a very real fear for cyclists. Alongside drivers overtaking too close and vehicles turning left across their path, it is a major concern, particularly in urban areas and around parked vehicles. This is because, as the case studies below demonstrate, a carelessly opened car door can lead to a collision with another vehicle, with fatal consequences.

Sam Harding

Cyclist Sam Harding was killed in August 2012 when driver Kenan Aydogdu opened his car door in front of Sam on London's Holloway Road, knocking him off his bike and under a bus.

Aydogdu had decided to darken his car windows by fitting plastic tinting film, so the side windows only provided 17% transparency, detrimentally affecting what he could see from the driver's seat. The restricted vision wasn't an accident: it was an obvious result of a conscious choice.

Given that this was not a 'driving offence', and the maximum penalty for car-dooring is only £1,000, the Crown Prosecution Service (CPS) brought a manslaughter prosecution against him, but he was acquitted. Aydogdu was fined £200 for the car-dooring offence.

Sam's father Keith Harding told reporters that there was gap in the law, with a huge gulf in penalties between a nominal fine for car-dooring, which is treated and perceived as a regulatory offence, and a manslaughter conviction, which in most cases will be unrealistic, adding that: "the law needs to find something which is commensurate".

www.cyclinguk.org/cycle/car-door-dangers

www.standard.co.uk/news/crime/motorist-who-knocked-cyclist-under-bus-had-only-17-vision-through-car-s-tinted-window-8399206.html

Robert Hamilton

Cyclist Robert Hamilton was killed in January 2014, when Joanne Jackson opened the driver's door of her car in front of Robert as he was cycling along Linaker Street in Southport.

The CPS considered a manslaughter charge, but concluded that there was insufficient evidence to provide a realistic prospect of conviction. The only remaining option was to prosecute for a car-dooring offence, for which Jackson was fined £305.

Following the case, Robert's widow echoed Keith Harding's comments saying: "I am so disgusted with the way these deaths are trivialised with very minor charges."

www.liverpoolecho.co.uk/news/liverpool-news/merseyside-woman-who-caused-cyclist-7729343

Sam Boulton

Sam Boulton died in July 2016 on his 26th birthday. He was cycling along London Road past Leicester train station when the passenger in a private hire vehicle, Mandy Chapple, opened the offside rear door, knocking Sam of his bike into the path of a Citroen van.

The taxi driver, Farook Yusuf Bhikhu, had decided to park on double yellow lines outside the train station rather than use the station drop-off area, allowing his passenger to disembark on the road side. Chapple pleaded guilty to car-dooring and was fined £150. Bhikhu was charged with permitting the car-dooring, but pleaded not guilty. He was convicted after a trial and fined £955, with further costs ordered after he lost his appeal.

Speaking to ITV News after Bhikhu's conviction, Sam's father Jeff Boulton said that a new offence should be introduced for causing serious injury or death by car-dooring, referring to the maximum £1,000 fine which "needs to change as it does not take into account if someone is killed or seriously injured."

www.mirror.co.uk/news/uk-news/popular-cyclist-killed-26th-birthday-8565722
www.cyclinguk.org/press-release/conviction-upheld-taxi-driver-death-sam-boulton
www.itv.com/news/central/2017-07-19/family-of-cyclist-who-died-call-for-change-in-law-sam-boulton-cycling-leicester-car-dooring-leicestershire/

Figures released by the DfT to Cycling UK following an FOI request show that, between 2011 and 2015, there were 3,108 people injured, eight fatally, where 'vehicle door opened or closed negligently' was a recorded contributing factor in incidents attended by the police.[174] 2,009 of those casualties were people cycling, with five resulting in fatalities.

Those figures are, however, highly unlikely to be fully representative of the scale of the problem, because only a small proportion of car-dooring incidents will be attended by the police. While it is reasonable to assume that most serious injury and all fatalities will lead to police involvement, and will therefore be recorded on the DfT STATS 19 figures, the minor injury cases (cuts, bumps, bruises etc.) are significantly under-reported as many cyclists do not involve the police in such cases.

As demonstrated in the case studies, the gap between manslaughter and a construction and use prosecution for car-dooring is a chasm. The evidential test for the former presents a formidable burden of proof, whereas a prosecution and the resultant penalties for the latter can appear derisory. This is not simply a justice issue: it matters for road safety reasons because it perpetuates a culture where a very real safety concern - car-dooring, the fear of which can deter people from cycling - is perceived to be:

- just one of those things that can't be avoided;
- a trivial matter, a mistake anyone can make;
- something which isn't a 'proper crime', just a regulatory error;
- something that drivers don't need to think more carefully about, because the law treats it as a minor issue.

Consequently, Cycling UK's recommendation, supported by the families of those who have tragically lost their lives through car-dooring, is that consideration should be given to a new offence, with more severe penalties, for opening a car door so as to cause death or serious injury. This step would send a message that car-dooring is a serious issue, helping to focus attention on public awareness and education to reduce the number of incidents.

The DfT is currently in the process of undertaking an urgent review into whether new offences equivalent to causing death or serious injury by dangerous driving should be introduced for cyclists. The question at the heart of that review is whether or not there is gap in the law. Jeff Boulton, Keith Harding and May Hamilton would all say that there is a gap in the law around car-dooring, and ask whether that can similarly be reviewed by the DfT.

[174] https://www.cyclinguk.org/press-release/2017-09-10/cycling-uk-calls-greater-public-awareness-'car-dooring'

Failing to stop

2.5.4 There should be increased penalties for 'failing to stop' offences where the driver must or should have known there was a possibility of a serious or fatal injury.

The offences of 'failing to stop' and 'failing to report an accident'[175] encompass a wide range of offending behaviour, from failing to report a car park scrape resulting in damaged paintwork, to the driver who knows that they have been involved in a potentially fatal collision, but then flees the scene leaving someone in need of urgent medical attention.

There have been several fatal collisions with cyclists, often in rural areas or on quiet roads, where drivers have left the scene and the cyclist has subsequently died in circumstances where, had immediate medical help been sought, they might have survived.[176] If 'careless' or 'dangerous' driving cannot be proved because there are no witnesses, the driver who fails to stop or report, if subsequently identified, can only be charged with a 'fail to stop' charge with a maximum six-month custodial sentence.

This is neither conducive to road safety, nor does it encourage reporting. A driver under the influence of drink or drugs who causes a collision and injures someone must surely be given to understand that there are real and substantial penalties for failing to stop and failing to report. Too often, particularly with collisions with VRUs, drivers leave the scene with relative impunity, and in some cases take a calculated risk because they know the penalties for failing to stop and report are limited.

Cycling UK is not suggesting that the current penalties are inadequate for non-injury vehicle damage cases. Rather, we believe that in potentially serious injury or fatal cases, the maximum penalties for failing to stop are inadequate, and that there are offences in this bracket for which a custodial sentence in excess of six months would be appropriate.

Increased penalties for 'failing to stop' offences where the driver must or should have known there was a possibility of a serious or fatal injury would:

- deter those involved in collisions from fleeing the scene;
- assist in securing early medical assistance in some cases; and
- reinforce the message that there are potential consequences for actions which compromise public safety on our roads.

This would benefit all road users, but it has particular relevance for VRUs who often find themselves immobile following a collision with a motor vehicle, whereas the driver still has the opportunity to leave without reporting.

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[175] http://www.legislation.gov.uk/ukpga/1988/52/section/170

[176] http://www.dailyecho.co.uk/news/14745752.Driver_who_failed_to_stop_after_fatal_cyclist_crash_smiles_as_he_walks_free_from_court/?ref=twt&cid=dlvr.it

Misuse or tampering with autonomous vehicle technology

Cycling UK believes that misusing or tampering with autonomous ('driverless') vehicle technology should be classified as a dangerous driving offence. We discuss autonomous vehicles in section 4.2.

Commencing Part 6 of the Traffic Management Act

2.5.5 Part 6 of the Traffic Management Act should be commenced, so that local authorities can take on responsibility for enforcement action against those who infringe mandatory cycle lanes and commit other 'moving traffic offences'.

This recommendation is not directly related to the review of road traffic offences, but does relate to legal provisions that, if commenced, would improve cycle safety.

The provisions for moving traffic offences in Part 6 of the Traffic Management Act 2004[177] (TMA) have not been activated. These would grant local authorities the powers to enforce, and issue penalty charges for, offences such as disregarding one-way systems, failing to give priority to oncoming traffic, or disregarding box junction markings. Under Part 6, local authorities can also apply for powers to take on further enforcement themselves, rather than relying on the police.

A report by the Transport Select Committee (TSC) in 2011 recommended that Part 6 of the TMA be brought into force by 2013.[178] As this did not happen, the recommendation was repeated in the TSC's subsequent report in 2016,[179] which explained that granting local authorities the power to enforce against moving traffic offences allows enforcement to take place even where roads policing numbers are in decline, and provides local accountability.

The rationale for all the powers under Part 6 to be put in place nationally, and for consideration of further enforcement powers, was also outlined in the Local Government Association's evidence to the TSC.[180] They stated that: "the police have largely ceased to enforce moving traffic offences in the wake of the TMA's passing".

Also, in their evidence to the TSC in 2015, London Councils[181] and the Mayor[182] argued that the DfT should allow local authorities across London to enforce mandatory cycle lanes in the interests of cycle safety, and enforce against vehicles crossing advanced stop lines at cycle box junctions.

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177 http://www.legislation.gov.uk/ukpga/2004/18/part/6
178 House of Commons Transport Committee. *Out of the jam: reducing congestion on our roads*, Ninth Report of Session 2010–12, HC 872 , paragraph 16
179 https://publications.parliament.uk/pa/cm201516/cmselect/cmtrans/518/518.pdf
180 http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/transport-committee/road-traffic-law-enforcement/written/22656.pdf
181 http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/transport-committee/road-traffic-law-enforcement/written/22870.pdf
182 http://data.parliament.uk/writtenevidence/committeeevidence.svc/evidencedocument/transport-committee/road-traffic-law-enforcement/written/22964.pdf

The 2016 TSC report therefore also recommended that the Government consider the case for allowing additional moving traffic offences to be subject to civil enforcement in the capital.

Yet neither of the TSC's recommendations have been implemented. Consequently, we have traffic rules and laws which are routinely disregarded for want of enforcement.

Cycling UK recommends that Part 6 of the Traffic Management Act be commenced, with consideration given to allowing additional moving traffic offences to be subject to civil enforcement where requested by local authorities.

2.6 The Highway Code

Headline recommendation:

2.6 Revise the Highway Code

Supporting recommendations:

2.6.1 The rules on overtaking cyclists should be made clearer, to include a minimum distance guideline.
2.6.2 The rules should contain clearer guidance about opening car doors safely, and include advice on the 'Dutch Reach'.
2.6.3 New rules on junction priority should be introduced to improve safety and convenience for pedestrians and cyclists at junctions.
2.6.4 Remove legally prejudicial rules on helmets and hi-viz clothing for cyclists.

The Highway Code (HC) applies in England, Scotland and Wales[183] (GB). There is a separate HC in Northern Ireland[184] (NI), which is based on the GB version. The specific rules referred to within our supporting recommendations are, however, the same in both the GB and NI versions of the HC. Cycling UK's recommendations regarding HC amendments are therefore relevant throughout the UK, but would need to be implemented separately in NI.

There are 307 rules in the HC. Those saying 'MUST' or 'MUST NOT' relate to statute law, and breaching them is an offence. Infringing the other rules is not inherently criminal, but may be used in court to decide whether a more general offence has been committed (e.g. 'careless' or 'dangerous' driving, or obstruction of the highway), or whether civil liabilities have occurred (whether someone is owed compensation for injury or property damages).

Typically, the HC is fully reviewed every six or seven years, but there has been no such review since 2007, when Cycling UK's campaigning led to 40 changes to the initial consultation draft. Another revision is long overdue, not least because of the need to ensure that the rules take account of the

183 https://www.gov.uk/guidance/the-highway-code/introduction
184 https://www.nidirect.gov.uk/articles/highway-code-rules-159-203

increasing automation of vehicles, and of various changes which have been made to traffic signs and signals (many of which have provided welcome benefits for cycling).

Whilst Cycling UK argues that a full review is needed, there are four specific recommendations for rule changes which are particularly important either for cycle safety, or to prevent people from being deterred from cycling.

Overtaking distances

2.6.1 The rules on overtaking cyclists should be made clearer, to include a minimum distance guideline.

The current rules

HC Rules 162-169 deal with overtaking generally, with Rule 163 referring to the distance to leave when overtaking a cyclist and advising that drivers should overtake only when it is safe and legal to do so, and "give motorcyclists, cyclists and horse riders at least as much room as you would when overtaking a car".

It is not clear, however, how much room that is, because the space people give when overtaking cars varies considerably. If a driver routinely overtakes other motor vehicles leaving less than a one metre gap, does Rule 163 imply that this is all they have to leave when overtaking a cyclist, regardless of their speed, the weather and the road conditions?

Rule 212 also refers to overtaking cyclists and motorcyclists, with advice to "give them plenty of room", a phrase which is repeated in Rule 213 in the context of advice that they "may suddenly need to avoid uneven road surfaces and obstacles such as drain covers or oily, wet or icy patches on the road".

But 'plenty of room' is another subjective concept.

Cycling UK recommends that either Rule 163 is amended, or a new rule is inserted, to specifically refer to a minimum passing distance guideline. Before expanding on this proposal, and explaining why a guideline in the HC is preferable to a minimum passing distance set by statute, it is important to explain why being overtaken too close is a major barrier to getting more people cycling, especially less confident cyclists, women, older people and children.

The Near Miss Project

The 'Near Miss Project' investigated the rates and impacts of near misses and related incidents among UK cyclists.[185] Participants were asked to keep a record of all cycle trips and any incidents on a nominated day, which enabled a per-mile rate for UK cycling near misses to be calculated for the first time. The research provided insight into incident rates, as well as types of near misses, how they affect people, and how cyclists think they might be prevented.

[185] https://www.sciencedirect.com/science/article/pii/S2214140515002236

One headline finding was that near misses, including those reported as 'scary', are a normal experience for many people cycling in the UK. Overall rates did not differ much depending on where people live, although the types of incident did.

The study did, however, find a gender difference in rates. Women reported more incidents per mile than men, although that was due to a difference in speed, with people who reached their destinations faster reporting fewer incidents. So, slower cyclists experience more near misses, which is of particular concern given that increasing and diversifying cycling requires the creation of comfortable cycling conditions for a range of ages and abilities.

Other headline findings of the project included:

- Fear of injury is a barrier to cycling, and experiencing non-injury incidents (near misses) may contribute to this;
- UK cyclists experience very high rates of non-injury incidents, by comparison with any reported injury rates;
- The most frightening incidents involve moving motor vehicles, particularly larger vehicles;
- Problematic passing manoeuvres are especially frequent and frightening;
- Higher rates are experienced in the morning peak and by slower cyclists.

The very high rates of non-injury incidents by comparison to reported injury cases is crucially important. This is because road safety policy is often driven by casualty statistics, and close passes / near misses do not register on those statistics.

What the Near Miss Project demonstrates, though, is that experiencing those near misses can create a fear of injury, which is a barrier to cycling. Consequently, changing the HC to include a guideline minimum distance to leave when overtaking a cyclist not only has road safety benefits, but would also help encourage more cycling by less experienced cyclists.

Minimum distance guideline

Various countries and states have passed minimum passing distance laws (MDL) to make it an offence to overtake a cyclist leaving less than the stated minimum distance. Those distances have varied, with some for example opting for 1 metre at speeds below 50 km/h (31 mph) and 1.5 metres at speeds above 50 km/h, with others opting for 1.5 metres whatever the speed.

Comparisons between countries, however, are not particularly helpful given the difference in road conditions, traffic volumes, cultural attitudes towards cycling, traffic law and levels of enforcement. In addition, as the Near Miss Project shows, there are wider benefits in reducing close passing incidents that are not obvious from casualty statistics alone.

Cycling UK is not recommending an MDL. This is because it would be difficult to enforce given the need to establish in evidence the exact distance and speed of the overtaking vehicle, if the minimum distance set by the law were linked to driving speed. By way of example: if the minimum distance set were 1.5 metres at under 30 mph, and 2.00 metres above that speed, then the police might have to prove that a driver was travelling at 31 mph rather than 29 mph. Equally, the

driver might dispute the alleged distance – they might claim it was 1.45 metres, and the police that it was 1.55.

Cycling UK would therefore prefer to see minimum distances set as guidelines within the HC. This would not only provide much clearer advice than the current rules, but also allow for a degree of nuance and flexibility to take account of road conditions, weather, speed of both cyclist and the overtaking vehicle, and its size and type, etc.

Such guidelines could advise:

- A guideline minimum distance of 1.5 metres at speeds under 30 mph;
- A guideline minimum distance of 2.0 metres at speeds over 30 mph;
- All drivers to take extra care and consider giving more space when overtaking cyclists in bad weather;
- Drivers of larger vehicles (buses, lorries etc.) to take extra care and consider leaving more space when overtaking cyclists.

To ensure that any changes to the HC had maximum effect on driver behaviour, they would have to be linked with and promoted by a robust and well-resourced public awareness campaign (see 2.1).

Car-dooring and the 'Dutch Reach'

2.6.2 The rules should contain clearer guidance about opening car doors safely, and include advice on the 'Dutch Reach'.

The number of cyclists injured or killed when drivers or passengers open car doors without looking is outlined in 2.5.3, where we call for a new offence for 'car-dooring'. The Near Miss Project also identified 'near' car-dooring incidents as one of the most common 'scary' incidents reported. The fear of car-dooring is, therefore, like close overtakes, something which deters people from cycling.

Given that it is an offence to open, or cause or permit to be opened, a car door so as to injure or endanger anyone, the relevant HC is expressed as a 'MUST' in Rule 239. This states that you "MUST ensure you do not hit anyone when you open your door", with further advice to "check for cyclists or other traffic". This rule, however, is not well-known or publicised, and fails to adequately alert drivers to the specific risks to cyclists and motorcyclists if car doors are opened into the road without looking behind first.

Cycling UK recommends that the HC rules should be amended to highlight the dangers that car-dooring poses to cyclists and motorcyclists, together with guidance about the 'Dutch Reach'.[186] This is a simple technique to use when opening a car door, can be learned in seconds, costs nothing, and can save lives.

[186] https://www.cyclinguk.org/blog/samjones/dutch-reach

What is the 'Dutch Reach'?

The Dutch Reach is a method of opening a car door for a driver (or passenger) where you use your far hand rather than the near hand.

In the UK, this means a driver (or a passenger on the driver's side) would look to open their door with their left hand, not their right. To do this the driver has to reach across their chest, so their body naturally turns, making it easier not just to check their mirrors for oncoming traffic (including cyclists), but also places them in a position to actually see the traffic. If it is safe to do so, they can then open their door and, as they are reaching across their body, they can ensure the door only opens partially, not to its full extent.

This technique is taught in the Netherlands during driving instruction and has been helping to save lives there for close to 50 years. Its use by rear seat passengers, who do not have a wing mirror, could help avoid tragic deaths such as that of Sam Boulton (see page 83), who died as a result of a rear seat passenger's failure to look behind before opening her door. Sam's father Jeff Boulton has been campaigning for the introduction of the 'Dutch Reach' into the HC, with a linked public awareness campaign, and supports Cycling UK's 'Cycle safety: make it simple' recommendations.

> "Why wouldn't you change the Highway Code to introduce a simple technique that could stop hundreds of cyclists being knocked off their bikes every year?
>
> "By introducing the Dutch Reach into the Highway Code, drivers would learn to always look over their shoulder before opening their car doors. It can be learned in seconds and costs nothing."
>
> **Jeff Boulton, father of Sam Boulton.**

Rules on junction priority

2.6.3 New rules on junction priority should be introduced to improve safety and convenience for pedestrians and cyclists at junctions.

As outlined in section 1.2, most continental countries oblige traffic to give way to cyclists and pedestrians going straight ahead at a junction, even where the turning traffic has a green traffic light. British Cycling's (BC) 'Turning the Corner' campaign',[187] which Cycling UK strongly supports, calls for something similar in the UK.

Recently, a report from The London Assembly Transport Committee, 'Hostile Streets' (March 2018), which examined walking and cycling at outer London junctions, recommended that TfL

[187] https://www.britishcycling.org.uk/campaigning/article/20170118-campaigning-Chris-Boardman--Support-British-Cycling-s-Turning-the-Corner-campaign-0

consider further research on 'Turning the Corner' type changes, with a traffic modelling study followed by off-street trials.[188]

To allow for this, though, it is important to revise HC rules on priority at junctions. Then, if the pilots prove successful, and once road users are more familiar with the concept, the principle of priority could be enshrined in law.

The rule change is vital because the HC provides the foundation for road user behaviour, and highway designers look to it to help them design roads and junctions. There is, however, no clear rule on giving way, which is why cycle lanes disappear at junctions where cyclists need the most protection: essentially, engineers protect themselves by not providing anything.

The current HC rules also mean that most cycle paths along by the main carriageway keep coming to a 'give way' stop at every side road. This frequently makes them so much less convenient to use than the main road itself that many cyclists end up riding along the road next to 'cycling infrastructure', but not on it.

It is true that highway designers who want to provide priority to pedestrians and cyclists crossing side-roads already have various options open to them. Depending on the exact circumstances, they can install various give-way signs, crossings and other physical features such as speed tables etc.. Yet they are reluctant to deploy these features for the simple reason that drivers may not 'give way' as intended. This is despite 14 separate existing HC rules that are meant to deter drivers from overtaking, cutting in and running into pedestrians and cyclists crossing side road junctions.

Introducing a universal priority rule to the UK, though, would help improve local highway authorities' confidence in installing continental-style cycle lanes and cycle paths that go across the mouths of side-roads. Such a rule would, in effect, consolidate and clarify existing rules, and make cycle lanes and paths simpler, safer and more efficient for everyone, as is the case elsewhere in Europe.

This simple change to the Highway Code, then, would be a major step towards embedding a custom that not only has the potential to make a huge difference to cycle safety in the UK, but also help deliver better cycling infrastructure.

[188] https://www.london.gov.uk/sites/default/files/hostile_streets_-_final_report_for_print.pdf

Removing prejudicial rules on helmets and hi-viz

2.6.4 Legally prejudicial rules on helmets and hi-viz clothing for cyclists should be removed.

The current rule

Rule 59 of the HC contains advice on what people should wear when riding a bike, including:

- A cycle helmet which conforms to current regulations, is the correct size and securely fastened;
- Light-coloured or fluorescent clothing which helps other road users to see you in daylight and poor light;
- Reflective clothing and/or accessories (belt, arm or ankle bands) in the dark;

There are two pictures underneath the text setting out the rule, captioned: "Help yourself to be seen".

Before outlining why this rule should be amended, it is important to clarify that Cycling UK is not opposed to cycle helmet-wearing. We are simply pro-choice, and believe decisions about whether or not to wear a helmet should be made by individuals, and in respect of children, by their parents. We adopt a similar stance regarding clothing.

Helmets

Cycling UK has an extensive policy briefing on helmets[189] covering the:

- Impact of helmet promotion and compulsory helmet laws;
- Low risks of cycling;
- Deterrent effects of helmet laws and net loss to public health;
- Exaggerated safety claims;
- Enforcement problems;
- Alternative ways to make cycling conditions safer;
- Need for informed decisions.

Our accompanying compilation of evidence sets out the detailed case for not making cycle helmets compulsory in law or the subject of promotional campaigns. Here, we focus on the public health consequences of such measures. [190]

Essentially, Cycling UK's opposition to both helmet promotion campaigns and helmet compulsion is based on the detriment to public health that accompanies both. This is because they lead to a reduction in cycling, an activity that offers enormous health benefits as set out in the introduction to this response.

[189] https://www.cyclinguk.org/sites/default/files/document/2017/11/helmets-policy_4s.pdf
[190] https://www.cyclinguk.org/sites/default/files/document/2017/11/helmets-evidence_brf.pdf

Helmet laws and drops in cycling use levels

Enforced helmet laws and helmet promotion have consistently caused substantial reductions in cycle use (e.g. 30-40% in Perth, Western Australia). Although they have also increased the proportion of the remaining cyclists who wear helmets, the safety of these cyclists has not improved relative to other road user groups (e.g. in New Zealand). The resulting loss of cycling's health benefits alone (i.e. before taking account of its environmental, economic and societal benefits) is very much greater than any possible injury prevention benefit.

The evidence also suggests a particularly strong deterrent effect among teenagers, a key target group for efforts to encourage physical activity. If children can be persuaded to keep cycling as teenagers, the habit will probably last into their adult years. Conversely, those deterred from cycling as teenagers are much less likely to pick up the habit later on.

Following the introduction of a helmet law in 1994, cycling trips in New Zealand initially fell by 26%, but continued falling to 51% below their pre-law levels by 2006.[191] Estimates suggest that around 136,000 adults and children there (nearly 4% of the total population) stopped cycling in the immediate aftermath of the legislation, 47,000 being teenagers (13-17 years-old).[192]

There is also evidence of sharp falls in cycle use among young people in the immediate aftermath of the introduction of legislation in New South Wales and Melbourne in Australia.

In New South Wales, the law came into effect in January 1991 for adults and in July 1991 for children. Figures from a major study, involving pre-law and post-law counts at 120 locations, showed that there was a 49% fall in under 16 year-old cyclists counted at road intersections, and a 48% drop in child cyclists counted at school gates between 1991 (pre-law) and 1993. There was also a smaller but still significant 32% fall in recreational areas.[193] Thus, the greatest deterrent effect appears to have related to utility cycle trips made by children.

In Victoria State, which includes Melbourne, a cycle helmet law was introduced in July 1990. Another major study, involving counts at 64 locations in Melbourne, found that there was a 43% drop in cycle usage amongst teenagers (12-17 year-olds) by 1991, and 45% by 1992, despite the fact that their numbers had been rising prior to the introduction of the law.[194]

Helmet promotion and drops in cycle use levels

But these effects are not limited to places where compulsory laws are introduced. There is also evidence that even the voluntary promotion of helmet wearing may reduce cycle use. Research commissioned by the DfT found that, in areas where a helmet campaign was held, "a larger increase in helmet wearing was found than in the areas which had not held such a campaign. However, this increase was found to be strongly linked to a decrease in the numbers of cyclists

191 http://www.cycle-helmets.com/nz-ltsa-2006.pdf
192 http://injuryprevention.bmj.com/content/8/4/317.full
193 Smith F & Milthorpe N. Roads Traffic Authority, 1993 ISBN0-7305-9110-7.
194 https://www.monash.edu/__data/assets/pdf_file/0006/217464/muarc051.pdf

observed. Also, in those areas where a campaign had been held and the numbers of cyclists had increased, helmet wearing fell."[195]

Similarly, a report for the European Conference of Transport Ministers noted that: "From the point of view of restrictiveness, even the official promotion of helmets may have negative consequences for bicycle use, and that to prevent helmets having a negative effect on the use of bicycles, the best approach is to leave the promotion of helmet wear to manufacturers and shopkeepers."[196]

Even picturing helmets on marketing materials designed to promote and encourage cycling appears to have an adverse impact: Danish research found that images of cyclists wearing helmets had a negative impact on people's attitude to cycling, despite the apparently high public acceptance of bicycle helmets in Denmark.[197]

Helmet compulsion and/or promotion: drops in cycle use v injury savings

Accordingly, a key issue in the helmet debate - and, for Cycling UK, the overwhelmingly important issue - is the need to weigh up whether any possible injury savings due to helmet wearing justify the likely reductions in cycle use which accompany either compulsion or promotion, and the consequent loss of its health, environmental and other benefits.

Addressing this question, Australian statistician Piet de Jong concluded that: "Even with very optimistic assumptions as to the efficacy of helmets, relatively minor reductions in cycling on account of a helmet law are sufficient to cancel out, in population average terms, all head injury health benefits." [198]

Based on de Jong's evidence, Cycling UK has estimated that telling people to wear helmets (let alone requiring them to do so by law) would shorten more lives than helmets themselves could possibly save (even if helmets had miraculous safety properties) if this led to reductions in cycle use of more than a fraction of a percent.[199]

Focussing on the benefits of cycling instead

Cycling UK therefore believes that, instead of focusing on helmets, health and road safety professionals and others should promote cycling as a safe, normal, aspirational and enjoyable activity.

Although individual cyclists may sometimes choose to use helmets, either for confidence or because of the type of cycling they are doing, they should not feel under pressure to wear them. For the sake of our health, it is more important to encourage people of all ages to cycle, than to make an issue of whether they use a helmet when doing so. This is our main reason for

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195 https://trl.co.uk/reports/TRL286
196 http://ebiz.turpin-distribution.com/search.aspx?pub=472&adv=1
197 http://thomaskrag.com/trma/20130708opinionImpact.pdf
198 https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1539-6924.2011.01785.x
199 See Cycling UK's evidence briefing on cycle helmets, downloadable from https://www.cyclinguk.org/campaigning/views-and-briefings/cycle-helmets

recommending that Rule 59 of The Highway Code should be amended to delete reference to helmets.

Highway Code Rule 59 and civil / criminal proceedings

Our main concern over Rule 59 is that it routinely leads to victim-blaming in civil and criminal cases. This is because defendants (or their representatives / insurers) sometimes try to claim that whether a victim was wearing a helmet or not made a difference to the outcome of a collision, and refer to the advice given in the HC. But, for example:

- If someone fails to see a cyclist in front and drives into them, whether or not the cyclist was or was not wearing a helmet is irrelevant to the causation of the collision;
- If a cyclist dies from a collapsed chest after being crushed by a lorry, whether they were wearing a helmet is a complete red herring.

Nevertheless, it is highly likely that the question of their headwear will feature both in media reports and the court proceedings.

As currently drafted, then, Rule 59 creates the impression that a cyclist riding without a helmet is behaving irresponsibly and, in legal proceedings, it may be used to underpin attempts to deflect responsibility for the real cause of a collision.

Hi-viz and retroflective clothing

Cycling UK has similar concerns regarding Rule 59's advice on clothing, given that:

- There is no sound evidence that hi-viz clothing makes a positive impact on cyclists' safety; and
- The rule is frequently used to blame cyclists when drivers fail to see them (i.e. because they have not helped themselves to be seen by wearing hi-viz), in order to deflect attention from their own apparent failure to look properly.

Hi-viz research and its implications for rule 59

The research concerning hi-viz clothing and other 'conspicuity' measures is outlined in Cycling UK's briefing paper on the subject,[200] but in summary it suggests that:

- Wearing hi-viz makes very little difference to how closely motorists overtake a cyclist;[201]
- Whilst the rules refer to light-coloured or fluorescent clothing, it is in fact contrasting colours (i.e.: colours that contrast with the background) which are likely to make a difference;
- At night, retroreflective accessories attached to limbs that move make the most difference as far as detecting cyclists is concerned. This is because they move, and human beings are particularly sensitive to 'biomotion'.

[200] Hi-viz briefing Cycling UK. https://www.cyclinguk.org/sites/default/files/document/2018/06/1805_cuk_hi-viz_evidence.pdf
[201] http://opus.bath.ac.uk/37890/1/Walker_2013.pdf

On the basis of these findings, we note that:

- Rule 59 advises light-coloured or fluorescent clothing, yet a cyclist wearing a yellow jacket as they ride past a field of oil seed rape is less conspicuous against that background than someone wearing a black jacket and white shorts.
- When cycling at night, retroreflective accessories attached to limbs (e.g. ankle straps) probably make more difference than the colour of someone's jacket, but the rule omits to mention this.

Nobody would accept the argument that a driver who crashed into a parked car should not be held responsible because the parked car was black. Yet Rule 59 has led to a situation where the colour of a cyclist's clothing is commonly, and incorrectly, thought to be relevant to the cause of the collision. Victim-blaming like this does nothing to promote road safety, as it can deflect focus from the true cause of the incident, i.e. someone's failure to pay attention and look properly whilst driving.

2.7 Regulating cyclists' behaviour

Headline recommendation:

2.7 The Government should avoid introducing measures in the name of 'cycle safety' that could reduce cycle use.

Supporting recommendations:

2.7.1 The causes of offending behaviour should always be investigated.
2.7.2 Road traffic rules and their enforcement must protect, not undermine, cyclists' safety. Where there are conflicts between them, the police should exercise discretion in enforcing the rules, until such time as they can be amended.
2.7.3 Do not make training, testing, licensing or insurance compulsory for cyclists/cycles.

As discussed above (2.6.4), Cycling UK believes that the rules in the Highway Code on cycle helmets and hi-viz are legally prejudicial and should be amended. Also, we have explained why we are opposed to laws making helmet-wearing compulsory, and that we are yet to find convincing research demonstrating the safety properties of hi-viz.

The motivation behind such rules and legislative measures is, ironically, cycle safety, although evidence strongly suggests that: they are most unlikely to improve overall casualty rates; and, in supressing cycling, would be detrimental both to public health, while increasing the risks the remaining cyclists face by eroding the benefits they gain from the 'Safety in Numbers' effect. In any case, the health benefits of cycling are known to outweigh the risks by far (see Introduction). The upshot is that if these measures were to reduce cycle use by even a fraction of a percent, they would shorten more lives than they could possibly save – see page 95.

It is for these reasons that we urge the Government to avoid taking steps in the name of 'cycle safety' that could reduce cycle use. Our recommendation in this respect not only relates to personal safety equipment, but also to some road traffic rules and the perennial calls for wholly disproportionate and unworkable regulatory measures such as mandatory training, testing and licensing for cyclists.

These calls, of course, are often inspired not so much by 'cycle safety', but in the unfounded belief that cyclists cause havoc and harm on the roads, and that the public and pedestrians in particular need to be protected from them. In this section, we look at this in more detail.

We must emphasise here, though, that Cycling UK does not condone irresponsible or law-breaking behaviour by cyclists. In particular, we urge cyclists to behave responsibly by:

- being aware of the requirements of motorists and making their intentions clear;
- ensuring they (or their children) are competent to ride in traffic;
- obeying traffic signals and signs unless this places them in direct danger;
- ensuring that they and their cycles are visible at night;
- maintaining their cycle so as not to cause a danger to themselves or others.

Nevertheless, we must stress too that there is no evidence to suggest that cyclists are any more prone to irresponsible behaviour than any other road user group. On the contrary, we have noted that cyclists and bus drivers are the road users who are least likely to have 'contributory factors' attributed to them by the police when they are involved in collisions.

Cyclists are also:

- disproportionately represented in road casualty statistics (see below);
- vulnerable road users when compared to motor occupants (see below);
- subject to negative stereotyping that leads to an exaggeration of the risks they pose and the level of lawless behaviour they exhibit;
- when involved in collisions, less likely to be at fault than other parties / more likely to be the victim; and
- road users who cause little damage to themselves or others, including pedestrians.

Cyclists' vulnerability and the relatively low risk they pose to others

Our understanding of DfT (GB) figures indicates that from 2012 to 2016, about 1.7% of all trip stages by private transport were made by cycle, but cyclists represented over 6.2% of reported road fatalities and about 14.4% of serious injuries.[202]

- In 2016, out of the 14,668 collisions involving a car and cycle, no car occupant died. Fifty cyclists were killed, however.[203]
- From 2007 to 2016, the vast majority - 98.6% - of KSI pedestrians in collision with a vehicle in any location were hit by a motor vehicle.[204]
- We calculate (in absolute numbers) that, on average a year from 2007 to 2016 (GB), cycles were involved in only 0.4 pedestrian fatalities on the footway/verge, and about 19 serious pedestrian injuries. No pedestrians were killed in collision with a cycle on the footway/verge in 2007, 2009, 2011-2013 inclusive, in 2015 or 2016.[205]
- From 2007-16, 98.9% of pedestrian fatalities and 95.6% of pedestrian serious injuries that happened in collisions on a footway/verge involved a motor vehicle.[206]
- In 2016, of the 290 pedestrians who died in collisions in urban areas, only two were hit by cycles (0.7%), neither on the pavement or verge.[207]
- From 2007-2016, no pedestrians were killed by red light jumping cyclists, while around five a year (50 in total) were killed by red light jumping drivers or motorcyclists. For pedestrians hit by red light jumping vehicles, just 7.6% of those slightly injured, and 5.4% of those seriously injured, involved cycles. The other 92%-95% involved motor vehicles.[208]

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[202] DfT. *National Travel Survey: 2016.* Table NTS0304. July 2017 & Reported Road Casualties GB: 2016. Table RAS30001. September 2017.
[203] DfT. *Reported Road Casualties Great Britain: 2016*. Sept 2017. Table RAS40004.
[204] DfT. *Reported Road Casualties Great Britain: 2016.* Sept 2017. Table RAS40004.
[205] Data supplied on request to Cycling UK by DfT, 09/11/2017.
[206] Answer (clarified) to Freedom of Information (FOI) request made to DfT by Cycling UK (then CTC) on 3/2/2016. https://www.whatdotheyknow.com/request/pedestrian_ksi_1_from_red_light_2?nocache=incoming-762565#incoming-762565; and answer to an FOI request made to DfT by Cycling UK on 9/11/2017. https://www.whatdotheyknow.com/request/collisions_involving_pedestrians?nocache=incoming-1077541#incoming-1077541
[207] Casualty figures from the DfT's *Reported Road Casualties Great Britain: 2016.* Sept 2017). Table RAS 40004.
[208] Answer to Freedom of Information requests made to DfT by Cycling UK (then CTC) on 7/12/2015 & 9/11/2017 (browse requests and search 'pedestrians' & date). https://www.whatdotheyknow.com/

Our understanding of TfL figures [209] indicates that, from 2007 to 2016, despite the significant rise in cycling's modal share into London (with journey stages up by 61% in 2015 compared to 2005[210]) – and bearing in mind the particularly heavy concentration of pedestrians, cyclists and traffic lights:

- 16% of pedestrians injured or seriously injured by red light jumping involved cyclists. The rest (84%) involved red light jumping by drivers or riders of motor vehicles.
- In particular, red light jumping car drivers were involved in seven pedestrian fatalities over the ten-year period in total.

The need to investigate the reasons behind offending behaviour

2.7.1 The causes of offending behaviour should always be investigated.

To gain widespread respect from cyclists, road traffic rules and their enforcement need to protect, and not undermine, cyclists' safety. Cyclists should never be expected to face situations where they feel they have to choose between acting legally and protecting themselves (e.g. by riding on a footway to avoid a lorry or moving safely into open space at signalised junctions rather than waiting for the following traffic to accelerate into that junction when the lights turn green).

Hence, it is important to consider the reasons behind any offending behaviour and to address these. In the case of cyclists, they may include: age, inexperience or the fear of on-road riding, a lack of cycle training, poor infrastructure, unhelpful traffic regulations etc.

By way of example, if footway cycling is proving to be a nuisance somewhere, it makes sense for the highway authority to find out why cyclists are not using the legal route. Reducing speeds, installing a cycle link or redesigning a junction may be enough to eliminate the problem (see 1.1 for more on infrastructure).

Need for road traffic rules and their enforcement to protect, not undermine, cycle safety

2.7.2 Road traffic rules and their enforcement must protect, not undermine, cyclists' safety. Where there are conflicts between them, the police should exercise discretion in enforcing the rules, until such time as they can be amended.

In section 1 above, we covered the need for new rules on junction priority to address a key situation where adherence to traffic rules can sometimes be contrary to the interests of cycle

[209] Answer to Freedom of Information requests to TfL made by Cycling UK (then CTC) on 7/12/2015; and 9/11/2017. https://www.whatdotheyknow.com/request/pedestrian_ksi_1_from_red_light?nocache=incoming-759237#incoming-759237
https://www.whatdotheyknow.com/request/collisions_involving_pedestrians_2?nocache=incoming-1081671#incoming-1081671

[210] TfL. *Travel in London. Report 9*. 2016. http://content.tfl.gov.uk/travel-in-london-report-9.pdf

safety. We do not condone red light jumping, although it has to be acknowledged that it can in fact be a safer option in some situations. We would far prefer that this debate be resolved by introducing new rules on junction priority which supported the safety of both pedestrians and cyclists – see 1.2.

As for pavement cycling, when FPNs for breaching S72 of the Highways Act 1835 were first introduced in England and Wales, cycling organisations (including Cycling UK) asked for assurance from the Government that the penalty would be applied fairly and only used when the behaviour put pedestrians at risk.

We received such confirmation from the then Home Office Minster in 1999, Paul Boateng MP, who stated in a letter to Ben Bradshaw MP that the introduction of FPNs: "… is not aimed at responsible cyclists who sometimes feel obliged to use the pavement out of fear of the traffic, and who show consideration to other pavement users when doing so. This is not a clamp down on responsible cycling, and I know the police service too do not see it in that way." (Paul Boateng MP to Ben Bradshaw MP, 9/7/1999).

In 2014, this advice and a reminder that the police should use their discretion over fining people for cycling on the pavement was re-circulated to police forces, and endorsed by the then cycling minister, Robert Goodwill MP.[211]

Cycling UK urges the Government to uphold this approach. As mentioned, we do not excuse or condone irresponsible cycling but, if people (especially children) are riding on the pavement because they are genuinely scared of the road, it is important not to treat them like criminals, providing they maintain a safe and respectful speed and distance from any pedestrians.

We reiterate that we do not support pavement cycling and that, in most circumstances, we do not favour the conversion of footway space to cycle tracks either. This is never an ideal solution and, in built-up areas, it is almost invariably the wrong one (see 1.1.3). In any case, as the figures above show that cyclists riding on the pavement are not the threat to pedestrians that many people assume they are.

Cyclist licensing/compulsory training & insurance

2.7.3 Do not make training, testing, licensing or insurance compulsory for cyclists/cycles.

Exaggerating the level of irresponsible behaviour amongst cyclists, and reluctance to put the consequences of it in perspective, are among the most obvious symptoms of negative stereotyping. They also lead to recurrent calls to regulate cyclists by introducing a testing and licensing system, and making third party liability insurance compulsory.

Cycling UK believes this would have little, if any, positive effect on road safety. As discussed above, cycling is an inherently benign mode of transport, and those who indulge in reckless and potentially harmful behaviour do not typify cyclists in general.

[211] See ACPO press release. 17 January 2014. https://news.npcc.police.uk/releases/support-for-police-discretion-when-responding-to-people-cycling-on-the-pavement

In countries famed for their high levels of cycle use and cycle safety, cyclists are not expected to be tested, licensed/registered etc.. Prime examples of this are the Netherlands and Denmark.

A variety of regulatory systems has been introduced in other countries or in cities elsewhere, but subsequently abolished (e.g. in Toronto and Switzerland – see case studies below); either that, or their main aim was or is to tackle bike theft through registration (e.g. in Japan), rather than irresponsible riding behaviour.

Cycling UK's arguments against compulsory regulation for cyclists are based on practicalities, likely impact and proportionate response. We are pleased to note that several of the concerns and disbenefits we identity have led Government ministers to reject calls for compulsory regulation of various kinds over the past few years. [212], [213], [214], [215].

In our view, compulsory regulation would be:

- **Costly and disproportionate**: the number of people who own a cycle in Great Britain runs into millions, and is not much less than the number of licensed cars. A licensing system would impose a significant extra burden on the taxpayer, and one that would not prove cost-effective in terms of road safety given the negligible harm cyclists do.
- **Impractical to administer and enforce**, especially given the numbers of children who cycle or own a bicycle. In fact, they are much more likely to be bicycle-owners than adults, according to the NTS.[216] Measures to oblige every child (or even children from a certain age) to carry a licence ready for inspection by the police are wholly unrealistic, inoperable and unenforceable. Regulating child cyclists, in fact, caused such serious problems that it was one of the reasons behind Toronto's decision to revoke its bicycle licensing bylaw (see case study below).
- Also, as **bicycles change hands more readily than motor vehicles**, keeping the system up to date would be very difficult. Moreover, the police are under-resourced, and enforcing a licensing system for cyclists, child and adult alike, would stretch them yet further. Even when supplied with a drivers' licence plate number and full details, many police forces already find it challenging enough to pursue each and every report of bad driving.
- **A barrier to the uptake of cycling**: cycling is so healthy and environmentally-friendly that it makes no sense to put anything in the way of people who are interested in taking it up. Newcomers or occasional cyclists may be put off if they have to apply for a licence, register their machines, purchase insurance and undergo compulsory training before they can pop on their bike for a quick trip to the shops or even dream of a cycle outing with their family.
- **Complex to introduce**: as the DfT will be aware, the Vehicle Excise and Registration Act 1994 provides for the registration of mechanically propelled vehicles, but not for cycles or cyclists, meaning that new, and probably convoluted, legislation would be needed if the

[212] https://www.theyworkforyou.com/wrans/?id=2015-11-24.HL3851.h
[213] https://www.theyworkforyou.com/wrans/?id=2006-10-09d.1.742
[214] https://www.theyworkforyou.com/wrans/?id=2016-06-06.HL475.h.
[215] https://www.theyworkforyou.com/wrans/?id=2016-10-19.HL2481.h
[216] DfT. *National Travel Survey 2016*. Table NTS0608. July 2017.

Government decided to regulate cyclists/cycling/cycles in a similar way. It would also require extensive upgrades to the relevant computer systems.

Public liability insurance

Cycling UK does not want anyone to face barriers if they decide to cycle somewhere, and this includes making third party liability insurance compulsory. We have already stressed that cyclists do little harm to others, and are less likely to contribute to a collision than the driver of any car involved. Also, given their vulnerability, most do not ride negligently because they are more than likely to come off worse in a collision with a motor vehicle than its driver or passengers.

Nonetheless, we encourage cyclists to take out public liability insurance in the unlikely event that they do cause injury or damage to anyone else or any property in a road traffic incident. All our members, in fact, are automatically covered up to £10 million, and we offer a discounted rate to members of affiliated groups.

Our views on 'presumed liability' are also relevant here. This helps correct for the imbalances in power and vulnerability amongst road users in the context of liability for injury or damage to third parties, and is the approach taken in the majority of European countries. For more on this, see 5.4.4).

Case studies:

City of Toronto, Canada

In 1935, Toronto introduced a bylaw requiring residents who owned and used bicycles on the city's highways to buy a licence for their bikes. It was, necessarily, a complicated system, and involved much paperwork, visits to police stations, bike inspections etc.. In 1957, the bylaw was repealed, with the City stating that it "... often results in an unconscious contravention of the law at a very tender age" and noting the poor public relations it caused between police officers and children.

On occasion since then, the city has thought about reintroducing the bylaw, but has each time rejected the idea, mainly citing how difficult it is to keep the database up to date and license children, and its basic failure to modify the kind of behaviour it wanted to target.

www.toronto.ca/services-payments/streets-parking-transportation/cycling-in-toronto/cycling-and-the-law/bicycle-licencing/

Switzerland

Very early in its cycling history in the 1890s, Switzerland obliged all cyclists to purchase a metal bicycle licence plate unique to the bike and its owner, both of which were thereby registered. This was an expensive and complicated system (involving either the municipality or the police), and was replaced by the mandatory Velo-Vignette in 1989.

Purchasing a Velo-Vignette, a self-adhesive sticker, was compulsory and covered cyclists with third party liability insurance. The stickers were valid from 1 January one year to 31 May the next, and non-compliance was penalised with a fine. Obligatory registration and the central registry dealing with it was disbanded, however.

The Velo-Vignette was finally abolished from 1 January 2012 (except for e-bikes capable of exceeding 25 km/h). Its high cost and administrative burden had been repeatedly questioned and 90% of cyclists were found to be covered by private liability insurance in any case. www.ch.ch/en/cycling-switzerland/

'Road tax'

Unjustified claims that virtually all cyclists misbehave themselves on the roads often trigger calls for them to pay their 'fair share' of 'road tax'.

This is illogical for many reasons: i.e. as we know, there is no such thing as 'road tax', but VED based on fuel type and CO2 emissions; VED revenue goes into general taxation (at least at present), and has little bearing on road user behaviour; cyclists do very little damage to the roads; and most are also drivers and/or income/council taxpayers who contribute financially to national and local road maintenance and infrastructure anyway.

The prospect of a new 'Roads Fund' from 2020, financed by VED revenue for new cars, is of some concern to Cycling UK, however. This move could breathe more life into the argument that 'cyclists don't pay road tax', making it all the more important to address the negative stereotyping and misunderstandings that cycling unfortunately attracts from some sections of the public and media.

Cycle training

Headline recommendation:

2.8 The Government should strengthen funding for Bikeability so that every child has the chance to qualify at least to Level 2, and preferably to Level 3, free of charge before they leave school/college.

Supporting recommendations:

2.8.1 The Government should require local authorities and schools to collect data directly from pupils on the impact of Bikeability training, and provide the tools to do this.
2.8.2 The DfT should commission research into the impacts of cycle training on driving competence and behaviour.
2.8.3 National Standard cycle training should be included in the National Curriculum.
2.8.4 Cycle training should be systematically enrolled as a measure to prevent and correct anti-social and illegal cycling behaviour.
2.8.5 To maintain quality assurance, national government should continue to maintain/support: the National Standard; the training of National Standard Instructors (NSIs); regular reviews; quality assurance processes and registration systems; and an accessible national database of qualified NSIs.

National Standard Cycle training ('Bikeability') in perspective

It goes without saying that riding a cycle is not nearly as complex as driving a car, and does not involve the same degree of operational risk. This, along with our overarching opposition to putting any hurdles in the way of such a healthy and relatively harmless activity, is why Cycling UK does not accept that training should be a compulsory prerequisite to cycling in any circumstances (e.g. cycling to school, or on business).

Equally, it is important to see cycle training not as a panacea for safe cycling, but as part of the 'Safe systems' approach that we advocate in this document. Indeed, some adult cycle trainees questioned by researchers pointed out that training does have its limitations, i.e. that it is not sufficient on its own to overcome fear of traffic if roads and infrastructure remain poor for cycling and dangerous driving is seen to be tolerated.[217]

Note: we are aware that cycle training to the National Standard is not always branded as 'Bikeability' but, for ease of reference and given that it is the term used for the training DfT supports in schools, this is the name we will use here.

Bikeability's benefits

We have already made the case for integrating cycle training into the driver training and testing process for all drivers, and for it to be made compulsory for those in charge of large vehicles such as HGVs. This, we believe, would improve drivers' behaviour and attitudes towards cyclists, give all road users a better insight into vulnerability, and boost road safety overall.

More generally, as one of the original proponents of and contributors to the development of the National Standard in 2005, Cycling UK strongly advocates high quality and inclusive on-road cycle training that is sensitive to cultural issues and suitable for people of all ages, backgrounds and abilities. This is principally because it:

- is a very effective way to encourage more people of all ages, backgrounds and abilities to cycle by boosting riding skills and confidence, particularly in imperfect cycling conditions;
- is not just about bike-handling - it also educates trainees in the rules of the road, risk assessment and management;
- helps make parents more confident about allowing their children to cycle;
- has the potential to address the behaviour of offending cyclists.

While broad national level data does not indicate a change in the proportion of pupils cycling to school since the introduction of Bikeability (it remains at about 2%), more 'granular' evidence gathered a local level (e.g. in Cambridge – see below) does suggest that it is making a difference.

Clearly, the DfT is already persuaded of the benefits and positive impact of cycle training for children, and will be aware of the range of research and evidence for this, much of which is listed on Bikeability's website.

[217] Sherriff, Graeme. *Communicating Cycle Training: Perceptions and Experiences of Adult Cycle Training*. University of Salford, Manchester. Aug 2014. http://usir.salford.ac.uk/35778/1/Sherriff-2014-Communicating-Cycle-Training-Perceptions-and-Experiences-of-Adult-Cycle-Training.pdf

To pick out just a few of the published findings that indicate that training improves safety as well as encouraging use, and is good value for money:

- Earlier (2.2.1), we referred to research showing that children who have received Bikeability Level 2 training are more confident and significantly better able to perceive a hazard on the road and respond appropriately than untrained pupils of the same age.[218]
- A 2014 report published by The Association of Bikeability Schemes (TABS),[219] based on a survey of 1,345 trained and untrained Year 5 & 6 pupils in 25 primary schools in seven local authorities in England, suggests that trained children:
    - are more likely to cycle to school than untrained children;
    - are more likely to cycle on roads and less likely to cycle on pavements;
    - feel more confident than untrained children cycling on the road, particularly in areas where children generally cycle less, and especially for girls;
    - trained children enjoy cycling more, especially trained girls (although most children enjoy cycling very much).
- During the pilot of Bikeability Plus, the number of children who cycled to school at least once a week more than doubled.[220]
- An evaluation of Bikeability Scotland training found that it had a positive effect for the majority of participants (approx. 75%). Most parents said the training had improved their child's confidence when cycling.[221]
- A 2013 survey commissioned by Cambridge County Council found that in four urban schools in Cambridge (rounded figures):[222]
    - 10% more Bikeability-trained than untrained pupils reported frequent cycling overall (i.e. at least once a week);
    - 20% more trained girls than untrained girls normally cycled frequently to school;
    - 54% of trained pupils mainly cycled on the roads with traffic, compared to 27% of untrained pupils;
    - 10% of trained pupils cycled on pavements, cycle paths or lanes separated from traffic, compared to 37% of untrained pupils.
- Also, having looked at four interventions to increase cycle use, a report on the economic benefits of cycling concluded that cycle training for all ages represented the best value for

[218] Hodgson, C & Worth, J. *Research into the impact of Bikeability training on children's ability to perceive and appropriately respond to hazards when cycling on the road.* Published by NFER. Feb 2015. http://bikeability.org.uk/publications/

[219] TABS. *2014 Bikeability School Travel Survey Report*. Dec 2014. http://www.tabs-uk.org.uk/wp-content/uploads/2014/12/2014-Bikeability-School-Travel-Survey-Report-England-FINAL.December17.2014.pdf

[220] Parliamentary answer from Andrew Jones MP. 21/3/2017. https://www.theyworkforyou.com/wrans/?id=2017-03-14.67941.h

[221] Scottish Government. *Tackling the school run research study.* Oct 2016. www.gov.scot/Resource/0051/00513039.pdf

[222] Frearson, M. *Bikeability cycling outcomes pupil survey proof of concept.* (Outspoken Cycle Training; Cambridgeshire County Council; The Association of Bikeability Schemes). May 2013. 224 pupils responded to the survey. http://www.bikehub.co.uk/wp-content/uploads/2013/10/Bikeability-cycling-outcomes-pupil-survey-FINAL.pdf

money. Even on the basis of very conservative estimates, the authors calculated that the benefits outweighed the costs by 7.4 to 1. [223]

Obviously, the boost that cycle training gives to cycle use benefits public health, a fact that NICE recognises in its guidance to local authorities on how to promote walking and cycling. It says, for example: [224]

> "Ensure training is available for those who are interested in cycling, either as a form of transport or as a recreational activity."
>
> "Ensure all children can take part in 'Bikeability' training [...]. Ensure cycle training is age-appropriate and timed to allow cycling to school to become a habit."

Finally, a recent academic paper highlighted the need to promote the scheme further in deprived areas in particular. [225]

The benefits for local authorities and schools

Supporting and encouraging schools to organise Bikeability training is a good way for local authorities to boost cycling to school in their areas, and it is money well spent in terms of the 'Safety in Numbers' effect. For instance, we understand from a report for the DfT (2012) that authorities who draw down more Bikeability funding from central government see larger increases in cycling to secondary schools than those who draw down smaller sums.[226]

High-quality cycle training helps schools (i.e. headteachers/governors etc.) feel more confident about promoting cycling and it is reassuring for parents. In addition, it can form a valuable learning opportunity that relates directly to other useful life-skills, e.g. risk management, navigation, local geography, mechanics and safe and independent mobility.

Also, local authorities can add value to their Bikeability programmes by: arranging for classes that allow parents and children to train together (thus refreshing adults' cycle safety skills and cycle awareness too); and providing free 'Dr Bike' cycle safety checks and maintenance courses.

To sum up, Bikeability offers significant benefits in terms of encouraging children to cycle more, parents' confidence in allowing them to do so, the 'Safety in Numbers' effect, safe cycling behaviour, and life-skills more generally. Not only this, but it is also a highly cost-effective investment.

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[223] SQW for Cycling England. *Valuing the Benefits of Cycling*. May 2007. http://webarchive.nationalarchives.gov.uk/20110407101006/http://www.dft.gov.uk/cyclingengland/site/wp-content/uploads/2008/08/valuing-the-benefits-of-cycling-full.pdf

[224] NICE. *Walking and Cycling: Guidance* (PH41). November 2012. http://www.nice.org.uk/guidance/ph41/chapter/recommendations#local-action

[225] Goodman, *A. Cycle training for children: Which schools offer it and who takes part?* Dec. 2015. Published in ScienceDirect. http://www.sciencedirect.com/science/article/pii/S2214140515006623

[226] Steer Davis Gleave for DfT. *A review of school census and Bikeability delivery data.* March 2012. http://bikeability.org.uk/publications/

Yet, at present, the funding for Bikeability cycle training (amounting to around £12.5m per year) is only sufficient to make it available for around 50% of pupils at primary age (i.e. taking them up to Bikeability Level 2).

The funding should be initially doubled, so this figure can be increased to 100% of primary school-age pupils, then increased so that Bikeability Level 3 can be provided at secondary school age, free of charge. This would give teenage pupils the confidence and skills to cycle on busier main roads as they expand their travel horizons and freedom of movement, helping them to retain the habit of cycling as they make the transition into adulthood. This could be hugely beneficial for their long-term health and wellbeing.

Need for systematically collected and analysed evidence

2.8.1 The Government should require local authorities and schools to collect data directly from pupils on the impact of Bikeability training, and provide the tools to do this.

While evidence quoted above points clearly to the positive impact Bikeability has on both cycle use and safety, Cycling UK believes that national government should introduce a consistent, more systematic process to enable all local authorities and schools to collect and return data on the impact of Bikeability on schoolchildren and their level of cycling.

The figures from Cambridge, quoted above, demonstrate the value of local data, collected in a robust, cost-effective and efficient way.

Case study: collecting local Bikeability data

In 2013, Cambridgeshire County Council commissioned 'proof of concept' research to establish whether Bikeability-trained children cycled more than untrained children in the area.

For this, the researchers developed an online 'travel' (rather than 'Bikeability') survey, using simple multiple-choice options based on National Travel Survey questions. Years 5 and 6 were invited to complete it at four schools in Cambridge, and it took each child only about five minutes during ICT class time, using school laptops. The response rate was high (224 responses from 320 children).

The process was low-cost, quick and efficient, and provided good, primary evidence.

www.bikehub.co.uk/wp-content/uploads/2013/10/Bikeability-cycling-outcomes-pupil-survey-FINAL.pdf

As discussed above in 2.2.1, Cycling UK urges the DfT to commission research into the long-term impact that Bikeability training may have on learning to drive and driving standards in later life.

Cycle training and the National Curriculum

2.8.2 National standard cycle training should be included in the National Curriculum.

Although it is now more widespread, the provision of National Standard cycle training is still patchy because neither schools nor local authorities are currently obliged to provide it, and there is insufficient funding to enable them all to do so. This is not the case with swimming, which is considered to be a crucial life-skill. The same, though, could easily be said of being able to cycle on the roads confidently and safely for transport.

The solution is to include cycling, like swimming, on the national curriculum, a move that Cycling UK and others called for when the DfE consulted on changes in 2013.

Cycle training and irresponsible/offending behaviour

2.8.3 Cycle training should be systematically enrolled as a measure to prevent and correct anti-social and illegal cycling behaviour.

Cycle trainers as road safety spokespeople

In Cycling UK's experience, cycle trainers often command young people's respect, because the instruction they offer promises greater freedom and independence, not to mention more adventure and fun. This makes them good spokespeople for road safety messages about what constitutes anti-social cycling, and why no cyclist of any age should indulge in it (for example, by explaining why close passing can intimidate pedestrians who are frail or who have poor sight, hearing, balance etc.).

Cycle training courses for offenders

Given that the police have the discretion to offer an offending driver a training course as an alternative to prosecution through NDORS, Cycling UK believes the same arrangement should apply to offending cyclists and, in many cases, will be the most proportionate and effective response. After all, Bikeability Level 2 covers the requirements of the law and, if the offence relates to pavement riding, training could help the offender feel more confident about using the roadway.

Quality assurance

2.8.4 To maintain quality assurance, national government should continue to maintain/support: the National Standard; the training of National Standard Instructors (NSIs); regular reviews; quality assurance processes and registration systems; and an accessible national database of qualified NSIs.

The DfT already plays a vital role in overseeing the quality and consistency of the delivery of the National Standard, and we urge that this continues. Regular reviews are crucial too. In this regard, we would also like to see a more formalised system of CPD for qualified instructors.

This is important not just for the provision of training in schools, but also for individuals and organisations who book cycle training for adults. Colleges, universities, workplaces and fleet operators, for example, may wish to promote and encourage cycling and/or cycle awareness, and the training they pay for needs to be of assured quality.

See also Cycling UK's briefing on cycle training.[227]

[227] Downloadable from https://www.cyclinguk.org/campaigning/views-and-briefings/cycle-training

3 SAFE SPEEDS

Headline recommendation:

3.1 Make 20 mph the default speed limit for most streets in built-up areas, with 30 mph (or higher) limits being the exception that requires signing, not the other way round.

Supporting recommendations:

3.1.1 20 mph streets should be made to look and feel like 20 mph streets, with the local community involved in their design to maximise local support.
3.1.2 A default limit of 40 mph should be adopted for minor rural roads.
3.1.3 Speed limits need to be enforced actively by the police, supported by zonal cameras, Intelligent Speed Adaptation (ISA), and driver education.

Why lower speeds?

Although the call for evidence does not ask any specific questions on safe speed, it is too crucial a matter for cycle safety, perceptions of cycle safety, and the 'Safe systems' approach for us to ignore in our response.

The correlation between vehicle speed and crash risk is well-documented: only recently, the International Transport Forum (ITF) has echoed the findings of numerous past studies by stating:

> "With higher driving speeds, the number of crashes and the crash severity increase disproportionally. With lower speeds the number of crashes and the crash severity decrease." [228]

The severity of a collision for the parties involved is, of course, largely a manifestation of the laws of physics. It follows that a cyclist or pedestrian in collision with a motor vehicle (i.e. an object of much greater mass travelling at a higher speed) is far more likely to be hurt than anyone inside the vehicle. Another factor is how much time anyone has to react to an unexpected event like an impending collision, meaning that the faster a vehicle is going, the less time there is for the driver, or anyone in their way, to take evasive action.

This is an intimidating thought for vulnerable road users, whether they are crossing roads, or cycling or walking along them. It is also an instinctive concern for local communities, families and schools, and it is hardly surprising that a low speed limit of 20 mph for residential streets attracts such a high degree of support amongst the British public (c70%[229]).

[228] International Transport Forum/OECD. *Speed and Crash Risk*. 2018. https://www.itf-oecd.org/sites/default/files/docs/speed-crash-risk.pdf
[229] DfT. *British Social Attitudes Survey*: 2016. August 2017. Table ATT0359.

Cycling UK, therefore, strongly welcomes the ITF's recommendation that the:

> "... forces a human body can tolerate and still survive must be considered when designing the road system and setting the speed limits. Such physical limitations are for example that most unprotected road users survive if hit by a vehicle at up to only 30 km/h ...".

The report also reiterates the accepted fact that even small increases make a difference:

> "... a 1% increase in average speed results in approximately a 2% increase in injury crash frequency, a 3% increase in severe crash frequency, and a 4% increase in fatal crash frequency. Thus, reducing speed by a few km/h can greatly reduce the risks of and severity of crashes."

Having looked at several speed-reducing schemes in ten countries, the authors recommend that:

> "To reduce road trauma, governments need to take actions that will reduce the speed on roads as well as speed differences between vehicles sharing the same road. For individuals, the risks of a severe crash might seem small, but from a societal point of view there are substantial safety gains from reducing mean speeds on roads."

As the DfT will be aware, much research has been conducted in the UK on the impact that 20 mph programmes have had (or could have) in local areas which have already introduced schemes, or are seriously considering them. To highlight just one these, estimates published in 2017 suggest that if all current 30 mph limit roads in Wales became 20 mph limits, between 6 and 10 lives would be saved and 1,200-2,000 casualties avoided each year, at a value of prevention of £58M-£94M. [230]

Also, the authors of a recent academic study suggest that, in policy terms, their findings "... provide support for reducing speed limits from 30 mph to 20 mph, a process which continues in London and in cities and countries worldwide." The data, they say, "... suggest that speed limits of 20 mph help reduce cycling injury risk", (although, as they also point out, their research accounted for speed limits, not actual driven speeds – an important distinction).[231]

Probably the most comprehensive study yet, though, is still expected, namely the Atkins study commissioned by the DfT in 2014. We await this with much interest.

Below we set out Cycling UK's current recommendations on 20 mph.

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[230] Jones, S. J.; Brunt, H. *Twenty miles per hour speed limits: a sustainable solution to public health problems in Wales*. Published in Epidimol Community Health, 0: 1-8. 2017. https://www.ncbi.nlm.nih.gov/pubmed/28341623

[231] Aldred, R. et al. *Cycling injury risk in London: A case-control study exploring the impact of cycle volumes, motor vehicle volumes, and road characteristics including speed limits*. 2018. Published in Accident Analysis & Prevention. https://www.sciencedirect.com/science/article/pii/S0001457518301076

20 mph for most urban streets

Our recommendations align with those of the ITF, who (to summarise), advise:

- 30 km/h maximum (c20 mph) where vulnerable road users share the same space with motor vehicles;
- Nothing above 50 km/h (c30 mph) for urban areas, with the exception of limited access arterial roads where there is no interaction between motorised and non-motorised road users.

It is the case, of course, that there are some 30 mph urban streets where driven speeds are already low for some reason (i.e. below 24 mph). Consequently, implementing a 20 mph default speed limit may not make a perceptible difference.

This should not, however, be seen as an indication that such limits are ineffective. On the contrary, Cycling UK advocates the adoption of 20 mph as the default limit for most urban streets, because:

- This would give the police the unambiguous legal backing they need to intercept and, if necessary, charge the minority of drivers who persist in putting people at risk by travelling at speeds that are too high for residential environments;
- As mentioned, even small decreases in speed can reduce crash severity;
- It would help reassure communities, making their streets feel safer and improving their quality of life.

'Default' not 'blanket'

It is important to stress that Cycling UK is not calling for a 'blanket' 20 mph approach; rather, we believe that 30 mph (or higher) limits should be the exception (e.g. for arterial roads) and determined carefully and realistically by local authorities with input from the police and the local community.

It is these roads that would then need signing, rather than those where the default of 20 mph applies. The result would be a reduction in the total amount of signing needed, confining it to more major roads where it would be a lot less visually intrusive than on residential streets.

Implementing 20 mph: street design, infrastructure and design by community

3.1.1 20 mph streets should be made to look and feel like 20 mph streets, with the local community involved in their design to maximise local support.

There are some roads where speed restrictions are not enough on their own to change behaviour. This is most likely in streets that still look as if driving significantly above 20 mph (i.e. at 24 mph+) is still excusable, with the result that some drivers may even breach the limit by a large margin. This not only runs the risk of undermining the credibility of lower limits as a concept, but also as a measure that the police are readily prepared to enforce.

As the ITF report mentioned above states: "It is important that the drivers understand what speeds they are expected to drive at. Road design should be self-explaining, reflecting the speed limits and guiding road users in choosing the right speed."

Overall, research shows that 20 mph zones (i.e. those with traffic calming features), reduce speeds more effectively than 20 mph limits (signs only). Engineering interventions to reduce speeds, however, do not necessarily have to involve traditional traffic calming infrastructure, such as chicanes and speed humps, which are often costly and sometimes unpopular with cyclists because they can be uncomfortable and inconvenient to negotiate.

Instead, sympathetic design, high-quality (cycle-friendly) surfacing, furniture, planters and trees all help contribute to an environment where drivers are immediately given the impression that they are guests on a street and must adopt a low speed. Removing central white lines and other highway markings can also help reinforce the visual impression of a 'street' or a 'lane', rather than a road.

In other words, these measures make 20 mph streets look and feel like 20 mph streets, and provide a comfortable, safe-feeling and attractive environment for pedestrians, shoppers and people on bikes. As pointed out above, a set limit also helps protect communities from the threat of drivers travelling too fast for the environment, because the police can then charge them with a specific offence.

As mentioned above, another benefit of making 20 mph the default limit for most urban streets is that they would no longer require signing, thus reducing visually intrusive clutter. On the other hand, signing would be required on roads where 30 mph (or higher) still applied.

In terms of traffic management, opportunities should be taken to restrict through movement for motor vehicles, while retaining it for cycles.

Naturally, re-designing any street is not an overnight process and, for those where typical speeds are nearer 30 mph (or higher), a local authority may be best advised to exempt it from a 20 mph default until and unless it is able to introduce wider design changes to bring actual speeds down to nearer 20 mph.

Either that, or they could follow the example of Leeds City Council and adopt an 'installation and review' approach for the completion of its 20 mph programme. On this basis, Leeds will be monitoring compliance, and only install engineering works where regulations on their own have not brought speeds down to the acceptable level. This will also save the council money: in the past, the average cost of each of its 20 mph zone schemes was £18,000 but, from now on, each of their forthcoming 90 schemes will come in at around £6,000 (covering legal and staff fees, and all signing).[232]

[232] Leeds City Council. *Decision details: Leeds 20mph Local Areas Speed Limit Programme. Cover Report*. 21 March 2016. https://democracy.leeds.gov.uk/ieDecisionDetails.aspx?AIId=65943

Alternatively, where a highway authority intends, after consultation, to maintain a 30 mph (or higher) limit in the longer term, it should consider introducing high-quality protected cycle facilities as soon as possible along every exempted road.

Community engagement

The more the local community is involved in the design of low speed streets, the more invested they will be in both enjoying and furthering the desired result, i.e. principally: responsible driving speeds, a safer feeling, and more local walking and cycling as opposed to driving (which in turn helps improve air quality and boost physical activity).

Case study: community engagement

Marks Gate in East London, a two-year collaborative project delivered by Sustrans, is a good example of positive input from the local community. Along with a range of other interventions, trees as a gateway feature and children's drawings on slow signs remind drivers that they are entering a 20 mph zone. An interim survey found:

- 65% of the residents surveyed walked or cycled more;
- 64% felt road safety had improved;
- a 22% reduction in residents saying traffic speed is a problem;
- a 32% increase in respondents feeling the area offered space for socialising;
- a reduction in average speed on affected roads.

www.sustrans.org.uk/marksgate

40 mph for minor rural roads

3.1.2 A default limit of 40 mph should be adopted for minor rural roads.

Cycling UK also supports the ITF's recommendation regarding speed limits for rural single carriageway, namely that:

- 70 km/h (c40 mph) for rural roads without 'median barriers' (i.e. as in rural single carriageways).

As in the case of default 20 mph for urban areas, signs should indicate any carefully considered exceptions on wider / straighter single-carriageway roads, while roads with speed limits above 40 mph should progressively have cycle tracks added.

Enforcement and education

3.1.3 Speed limits need to be enforced actively by the police, supported by zonal cameras, Intelligent Speed Adaptation (ISA), and driver education.

The combination of good design and community engagement (as describe above) should ensure that enforcing 20 mph requires no additional police resources than 30 mph limits do.

This is important because forces are by no means always in favour of 20 mph proposals, usually because they do not feel they have the capacity to police them. Instead, they may well only support 'self-policing' 20 mph schemes (i.e. those implemented with traffic calming infrastructure, or which are very obviously low speed streets).[233] Police enforcement is a crucial factor in the success of a 20 mph scheme, though, and another argument for reversing the decline in roads traffic policing numbers (see 2.3).

Technology

Speed cameras are an effective way of ensuring high levels of compliance and ensuring that drivers who insist on breaking the limit are penalised.

Early cameras were criticised on the grounds that they prompted drivers to slow down momentarily (and possibly unsafely), then speed up immediately afterwards. Zonal cameras, which calculate the average speeds of vehicles over a measured distance travelled within the enforcement zone, give an accurate idea of a driver's behaviour throughout a speed limited area, and make this kind of response entirely pointless.

Now that speed cameras can measure speed very precisely, including those operated by police on-site, Cycling UK does not believe there should be any margin of tolerance. As is often said, a speed limit is the maximum, not a target.

Cycling UK is also in favour of ISA systems, i.e. using technology to ensure that vehicles stick to the defined speed limits. It has been estimated that such a system could eliminate 20% of injury collisions and 37% of fatal collisions.[234]

Education

As discussed in 2.1.3, education is an essential adjunct to any enforcement regime, and the effectiveness of 20 mph schemes is as reliant on the combination as any other measure to improve road safety. Again, good community engagement is a key component here too.

Pollution

With the UK struggling to meet its legal limits on air pollution, especially in urban areas, there are understandable concerns about the effect lower speeds have on air quality. This is a complex issue, with the mix of traffic, fuel type (i.e. diesel or petrol), age of vehicles, driving styles, the

[233] Transport Select Committee. *Road Safety inquiry*. Second Report of Session 2012-13. July 2012. P27. https://publications.parliament.uk/pa/cm201213/cmselect/cmtran/506/506.pdf
[234] Carsten, OMJ; Tate, FN. *Intelligent speed adaptation: accident savings and cost-benefit analysis.* May 2005. Published in Accident Analysis & Prevention. www.sciencedirect.com/science/article/abs/pii/S0001457504001174

presence or absence of calming infrastructure, junctions and pedestrian facilities (i.e. features that lead to deceleration/acceleration) etc. all coming into play.

It is Cycling UK's understanding, however, that it is most unlikely that 20 mph limits impact negatively on air quality. As a project report for the City of London concluded (2013) after a full technical analysis of the environmental impacts of 20 mph restrictions in central London: "… it would be incorrect to assume a 20 mph speed restriction would be detrimental to ambient local air quality, as the effects on vehicle emissions are mixed". [235]

It seems that in many residential streets with existing 30 mph limits, speeds are close to 20 mph in any case. Consequently, lowering the limit will make little difference (although we argue, of course, that it does make a positive difference to enforcement, perceptions of safety and comfort, and the attractiveness of non-polluting modes over driving). The study also found that, when light-duty petrol vehicles travel at 20 mph speeds, the emissions are not greatly different to when they travel at 30 mph (per g/km: +7.9% for NOx; +2.1% for CO2). For diesel vehicles, on the other hand, the difference was large (per g/km: -8.2% for NOx; -0.9% for CO2). Importantly, both fuels showed -8.3% g/km for PM10.

It seems, in fact, that 20 mph is particularly valuable in terms of reducing particulates. The academic study of the potential impact of 20 mph in Wales referred to above concluded that if all current 30 mph limit roads in Wales to become 20 mph limits: "In terms of air pollution, deaths attributed to nitrogen dioxide (NO2) may increase by 63, and years of life lost by 753. However, deaths attributed to particulates (PM2.5) may decrease by 117 and years of life lost by 1400." (The review also highlighted other benefits in terms of road traffic casualties, active travel, noise pollution, greater social inclusion, greater community cohesion and local business viability).[236]

With regard specifically to cyclists, who usually ride in close proximity to motor traffic in urban areas, assessments of the overall health impacts of cycling have consistently concluded that the benefits outweigh the disbenefits. Not all assessments have factored in traffic pollution, but even those that have still suggest that cycling as a physical activity is far more beneficial than harmful to health. For more, see our briefing on air quality. [237]

Autonomous vehicles (AVs)

Finally, looking to the future, AVs represent an opportunity to enforce speed limits that are entirely appropriate to the environment: perhaps 10 or 15 mph. Cycling UK believes that the DfT should, in readiness, provide a much wider array of possible solutions for lower speed limits and access arrangements (see 4.2).

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[235] Transport and Environmental Analysis Group. *Centre for Transport Studies Imperial College London: An evaluation of the estimated impacts on vehicle emissions of a 20mph speed restriction in central London*. April 2013. https://www.cityoflondon.gov.uk/business/environmental-health/environmental-protection/air-quality/Documents/speed-restriction-air-quality-report-2013-for-web.pdf

[236] Jones, S. J., & Brunt, H. *Twenty miles per hour speed limits: a sustainable solution to public health problems in Wales.* Published in Epidimol Community Health, 0: 1-8. 2017. https://www.ncbi.nlm.nih.gov/pubmed/28341623

[237] www.cyclinguk.org/sites/default/files/document/2017/08/air-quality_1e_brf.pdf

4 SAFE VEHICLES

4.1 HGVs

Headline recommendation:

4.1 Improve lorry safety, focussing on safe lorry design and equipment, enforcement of rules covering driver, vehicle and fleet safety and demand reduction measures.

Supporting recommendations:

4.1.1 The Government should introduce a national 'direct vision standard' (DVS) for HGVs, to enable lorry permit schemes, modelled on the scheme being introduced in London, to be adopted in urban areas throughout the country.

4.1.2 Cycling UK supports both the DVS and the concept of a 'Safe system' approach, but agrees with TfL's proposals to base the star rating system purely on the vehicle's direct vision, rather that combining the DVS and 'safe system' so that the star ratings relate to the overall safety of the vehicle.

4.1.3 National and local government should take steps to help reduce the demand for HGV movements in urban areas, and at the busiest times. These should include the promotion of cargo bikes.

4.1.4 National and local authorities should be encouraged to use their powers to regulate HGV traffic, both under the Road Traffic Regulation Act 1984, through their procurement powers and via planning permission conditions or S.106 agreements. These should be supported through planning guidance.

4.1.5 CLoCS (Construction Logistics and Community Safety) standard should be adopted as a national standard for safer lorry equipment, driver training and fleet management.

Consultation question 5 in the CWIS safety review asks for suggestions on how government policy on vehicles and equipment could improve the safety of cyclists and pedestrians, whilst continuing to promote more walking and cycling.

While Cycling UK recommends that the main focus should be on safe lorry design, we have also included further supporting recommendations to improve lorry safety that are not related to vehicle design or equipment.

The risk HGVs pose to cyclists

As the DfT will be aware, HGVs (i.e. goods vehicles over 3.5 tonnes) pose a disproportionate risk to both pedestrians and cyclists. On average each year between 2012 and 2016, they: [238]

- Accounted for only around 3.6% of non-motorway motor traffic mileage on British roads, but were involved in 17.5% of cyclist fatalities;
- Were involved in almost 14% of pedestrian fatalities;
- Accounted for around 2% of urban and 5% of rural motor traffic, but were involved in almost a quarter of cyclist urban fatalities and just over 12% of cyclist rural fatalities.

Cyclist fatalities involving HGVs (GB roads) 2012-2016									
Year	Urban			Rural			All areas		
	Killed by HGV	Killed by all vehicles	*% Killed by HGV*	Killed by HGV	Killed by all vehicles	*% Killed by HGV*	Killed by HGV	Killed by all vehicles	% Killed by HGV
2012	12	54	*22.2*	11	64	*17.2*	23	118	*19.5*
2013	12	46	*26.1*	6	63	*9.5*	18	109	*16.5*
2014	12	51	*23.5*	8	62	*12.9*	20	113	*17.7*
2015	12	49	*24.5*	6	51	*11.8*	18	100	*18.0*
2016	10	43	*23.3*	6	59	*10.2*	16	102	*15.7*
Annual average	**12**	**49**	***23.9***	**7**	**60**	***12.4***	**19**	**108**	***17.5***

Cyclists' collisions with HGVs are also far more likely to prove fatal than those involving cars: the cyclist is killed in about a fifth of serious injury cyclist/HGV collisions, compared with around 2% for cyclists/car collisions.

Most of the collisions between cyclists and HGVs occur during lorry manoeuvres and /or at junctions,[239] with the most serious risk to pedestrians and cyclists coming from the largest, heaviest vehicles that seat the driver high up and provide only limited 'direct vision' from the cab. This is especially the case with HGVs used on off-road sites.

'Direct vision' and vehicle design

'Direct vision' refers to a driver's ability to see what is going on outside their cab without using the indirect means of mirrors or cameras: it is what the driver can see directly. Obviously, this is crucial for cyclists and pedestrians who share the roads with lorries and are disproportionately at risk from their manoeuvres.

[238] The traffic statistics in this section come from: DfT. *Road Traffic Estimates in Great Britain* 2016. April 2017. Table TRA0104; and the road casualty statistics from: DfT. *Reported Road Casualties Great Britain*: 2016. Sept. 2017. Table RAS40004.
[239] Knowles, J et al. *Collisions Involving Cyclists on Britain's Roads*. TRL. October 2009. www.trl.co.uk.

Yet, while our urban environment has changed dramatically in the last twenty years, with many more cyclists in London for example, the basic HGV cab has hardly altered since the 1970s. Their design has been dictated by their chief operating purpose and commercial viability. For instance, contractors working on landfill, construction or quarry sites favour vehicles with a high ground clearance able to cope with the terrain, even though they often spend only a tiny amount of their time in off-road conditions – about 2% of it in London.[240] These vehicles (N3Gs), however, afford their drivers a limited direct view from the cab, and consequently present a particular threat to pedestrians and cyclists.

Accordingly, the primary issue to address when reducing lorry danger is cab design, and whether HGVs with cabs that do not meet a set standard for direct vision should be permitted to operate in urban areas. Clearly, this is essential if we want to encourage more people to cycle in the busiest urban areas, and for cycling and walking to be universally seen as easy, fun and safe.

A Direct Vision Standard

4.1.1 The Government should introduce a national 'direct vision standard' (DVS) for HGVs, to enable lorry permit schemes, modelled on the scheme being introduced in London, to be adopted in urban areas throughout the country.

Proposals in London

In 2016, the London Mayor announced plans to assess construction and other HGVs using a world-first 'Direct Vision Standard' (DVS), supported by a safety permit scheme. Informed by collision research, DVS is a proposed five-star rating standard based on how much a driver can see of the area outside where VRUs are most risk. [241]

If approved, the scheme will apply to all large HGVs over 12 tonnes (N3 Class) working in or entering Greater London from 2020. HGVs will be given a rating of between 'zero-star' (lowest) and 'five-star' (highest). Only those vehicles rated 'one-star' and above would be allowed to enter or operate in London from 2020. Zero-rated vehicles would only be allowed if they can prove compliance through safe system measures.

By 2024, only 'three-star' rated HGVs and above would automatically be given a safety permit. HGVs rated 'two-star' and below would need to demonstrate increased safety through progressive safe system measures.

[240] TfL. Safer Urban Truck infographic. http://content.tfl.gov.uk/safer-trucks-infographic.pdf
[241] https://tfl.gov.uk/info-for/deliveries-in-london/delivering-safely/direct-vision-in-heavy-goods-vehicles

The evidence

The scheme is being introduced because the evidence shows that the amount an HGV driver can directly see through the cab's windows plays a major role in collisions with VRUs.

Whilst it is not possible to retrospectively determine, with certainty, whether or not a particular HGV collision with a cyclist or pedestrian would have been avoided if the driver's direct vision from his or her cab had been better, the various studies carried out by TRL, Leeds University, Loughborough University and TfL indicate, for example, that:[242]

- In collision with HGVs between 2009 and 2014, 61% of cyclist and 49% of pedestrian fatalities were potentially influenced by the vehicle's blind spots;
- Drivers relying on mirrors rather than direct vision take on average 0.7 seconds longer to observe potential hazards around their cab. This equates to a travel distance of 1.5 metres at 5 mph;
- Mirrors do not provide the comprehensive coverage of the area which is directly visible from a 'five-star' direct vision HGV;
- In simulated potential HGV collisions with a pedestrian, 23% more participant drivers collided with a pedestrian in standard cabs compared to low entry cabs (LEC) with improved direct vision.

Not surprisingly, the introduction of a DVS enjoys substantial support. TfL's first consultation on it revealed that:[243]

- 84% of respondents agreed that adopting a DVS had the potential to reduce road danger;
- 78% of respondents agreed that lorries with the worst DVS should be excluded for London.

Construction-type vehicles, such as tippers and skip-loaders, are over-represented in crashes with cyclists, but other types of HGVs are also involved.

Modern designs

It is important to note that LEC HGVs with significantly improved direct vision are already in use and on the market. Mercedes and Denis Eagle, for example, have adapted their refuse lorries for construction use, offering a variety of mixer, tipper, tractor unit and other bodies / cabs for purchase.

Also, the benefits of LEC and improved direct vision have long been recognised within the refuse sector, where such designs are now the norm.

[242] https://tfl.gov.uk/info-for/deliveries-in-london/delivering-safely/direct-vision-for-hgvs-research-and-tools
[243] https://consultations.tfl.gov.uk/roads/direct-vision-standards-phase-2/user_uploads/appendix-6---dvs-phase-1-consultation-results---tfl.pdf

To sum up, it cannot be stressed enough that:

- The casualty statistics clearly show that HGVs present a disproportionate risk to VRUs, particularly in London;
- The research identifies a solution, through improved direct vision from the cab;
- Vehicles providing improved direct vision are already on the market, but we have yet to see a wide uptake, and they are far from the norm.

Costs

Unfortunately, some elements of the freight industry are opposed to the safety permit scheme on the grounds of the financial outlay involved in transitioning their fleets. Cycling UK, though, is sceptical about such arguments because they overlook the economic and other costs to business of collisions and fatalities, and the benefits of improved safety performance.

An HGV operator involved in a fatal collision will potentially:

- Sustain reputational damage;
- Lose business;
- Face increased insurance costs;
- Incur legal costs;
- Expend considerable management time dealing with the consequences;
- Face prosecution / civil proceedings;
- Have to address work practices after the event.

In short, improving work-related road safety makes business as well as road safety sense.

Diluting DVS

4.1.2 Cycling UK supports both the DVS and the concept of a 'Safe system' approach, but agrees with TfL's proposals to base the star rating system purely on the vehicle's direct vision, rather that combining the DVS and 'safe system' so that the star ratings relate to the overall safety of the vehicle.

Quite reasonably, TfL is considering a safety permit scheme whereby responsible operators, who have invested in other safety equipment such as cameras, sensors, under-run protection etc., can demonstrate a 'safe system' *in lieu* of their vehicle passing the DVS star-rated standard.[244]

If the DVS and safe system approach are merged into an overall star rating system, however, the certainty and objectivity of the DVS will be compromised. After all, the assessment of a HGV's DVS will involve an empirical calculation of the actual field of vision from a particular position in the cab. Subject, of course, to accurate measurement, it will be a calculation which yields a definitive and objective answer.

[244] https://consultations.tfl.gov.uk/roads/direct-vision-standards-phase-2/

The certainty offered by a DVS-only star-rating system offers substantial advantages. For example:

- An operator will know the specific rating of any vehicle they purchase - if that is a 'three-star', they will know the vehicle will still automatically obtain a permit in 2024;
- It gives those whose vehicles fail the objective DVS test the chance to present a case for a permit based on a safe system instead.

Merging these concepts (i.e. DVS + safe system approach) into an overall star-rating, though, would merely introduce uncertainty, potentially leading to vehicles moving in and out of bands dependent on which camera system they have at a particular time, whether driver training is still being offered etc. As the current vehicle fleet is progressively replaced, direct vision cabs need to become the norm, with sensors, cameras, driver training etc. providing additional benefits, rather than being seen as alternatives to direct vision.

In conclusion:

- HGV cabs should be designed so that drivers can see pedestrians and cyclists directly through their windows (in the same way that most bus drivers can).
- Extending the glass in cab doors and windows as far as possible helps improve the driver's direct view of cyclists and pedestrians nearby. Along with more glass, lower driving seats bring the driver personally closer to the level of other road users, again making it easier to see VRUs, and anticipate and react to their movements.
- There may be benefits from fitting indirect vision devices (cameras, mirrors and sensors), but they are no substitute for direct vision and designing out 'blind-spots' altogether.

The research evidence, as discussed above, is clear: improved DVS has road safety benefits, particularly for VRUs.

Reducing the demand for HGV movements in urban areas

4.1.3 National and local government should take steps to help reduce the demand for HGV movements in urban areas, and at the busiest times. These should include the promotion of cargo bikes.

In our recommendation 4.1.1, we implicitly recognise that banning all HGVs from every urban area for the sake of cycle safety is not feasible. This is why we support a system that would refuse HGVs with inadequate DVS a safety permit unless further safety measures are implemented.

The Government and local authorities, however, could and should do more to help reduce the demand for HGV movements in urban areas.

Routing

Operators can minimise risk by routing HGVs away from roads and streets that are busy with cyclists, pedestrians and community activity. Digital mapping tools can help facilitate this and, if such lorry route networks are clearly signed, other road users can also choose to avoid them.

Out-of-hours/night-time only deliveries

Despite the safety benefit for cyclists and pedestrians if deliveries are made outside the rush hour, residents and communities often object because of the disturbance caused, particularly at night. It is not just the sound a lorry makes whilst driving that causes problems, but also the noise made while they are being unloaded. As a result, some councils restrict delivery activity at certain times.

Limited permit schemes, promoting the use of smaller goods vehicles and evening-only deliveries to shops in residential areas may, for instance, help allay residents' concerns.

Also, distribution centres away from residential areas should also be able to receive deliveries at night, with the goods being transferred to smaller vehicles and sent on at less unsociable times.

Cycling UK supports night-time and out-of-hours deliveries, but only if:

- Restrictions are also applied at busier times;
- The vehicles involved are designed with cycle safety in mind (see 4.1.1);
- Residents' quality of life is safeguarded.

Distribution centres

Encouraging the location of distribution centres on the periphery of urban areas would enable HGVs to transfer their loads onto smaller vehicles (including electric lorries and cargo bikes) for delivery further into the town or city.

Not only could this improve safety for VRUs, but also improve efficiency for freight operators, as congestion and the infrastructure typical of many urban areas are often a challenge for HGV drivers to negotiate (e.g. roundabouts that cannot cater for their vehicle's turning circle).

Action from big customers

Large establishments, including local authorities and government-funded companies, should also get involved in schemes to reduce the number of freight vehicles delivering to them. A good example is Newcastle University's 'urban consolidation trial',[245] which focuses on electric vehicles.

Cargo bikes and other alternatives to HGVs

As an alternative to larger vehicles, freight (cargo) cycles are an efficient and environmentally sound way of transporting and delivering loads in urban areas, helping to reduce the number of lorries and vans on the road, and the hazards and congestion they cause. A report from CycleLogistics (an EU project to promote cargo cycles) calculated that, potentially, 42% of all motorised trips for goods transportation in European cities could be shifted to cycles.[246]

[245] http://freightinthecity.com/2016/05/how-newcastle-university-has-learnt-to-love-consolidation/
[246] CycleLogistics. *Potential to shift goods transport form cars to bicycles in European cities*. Oct. 2013. www.cyclelogistics.eu/docs/111/CycleLogistics_Baseline_Study_external.pdf . The study actually looked at the potential shift not just from cars, but from a variety of goods carrying motor vehicles.

As no legal weight limit applies to the load carried by any cycle, the deciding factors are the machine's specification and the ability of the rider to propel it. With electric assist, loads of up to 300 kilos can be delivered.[247]

Cycling UK welcomes the Government's plans to provide financial support for the uptake of cargo bikes.[248] However, we urge it to seek to overturn a recent suggestion from the European Commission that riders of e-bikes (including electrically assisted freight bikes) must have compulsory insurance.[249] There is no justification for treating e-bikes as being more hazardous than equivalent conventional bikes, given that the weight and power limits for e-bikes are set to avert this risk.

Increasing the volume of goods transported by river is also a viable option for many cities, as is rail. This offers both road safety and air quality benefits. Research for the Campaign for Better Transport found that removing just 2,000 lorries a day from four specific roads would result in a 10% reduction in NOx and a 7% reduction in particulates from all road traffic in each of the four routes studied, with a 2.5% reduction in carbon emission across all four routes.[250]

Regulation by local authorities

4.1.4 National and local authorities should be encouraged to use their powers to regulate HGV traffic, both under the Road Traffic Regulation Act 1984, through their procurement powers and via planning permission conditions or S.106 agreements. These should be supported through planning guidance.

Whilst the measures outlined above can help reduce the demand for HGV movements in urban areas, local authorities could and should make greater use of their powers to regulate HGV traffic. Under the Road Traffic Regulation Act 1984,[251] local authorities can introduce lorry control measures such as weight and loading restrictions or restrictions/prohibitions on movements by vehicles of certain widths, heights and weights, in certain streets/areas, at certain times of day etc.

Equally, when granting planning permission for development or infrastructure projects, local authorities should be mindful of the lorry movements the site is likely to generate during construction (and/or after construction if the site is a depot).

[247] http://freightinthecity.com/2015/10/outspoken-delivery-wins-government-funding-to-launch-electric-assist-cargo-bike-hire-service/
[248] www.gov.uk/government/news/birmingham-to-host-worlds-first-zero-emission-vehicle-summit
[249] https://ec.europa.eu/info/law/better-regulation/initiative/237387/attachment/090166e5baec10b5_en
[250] Metropolitan Transport Research Unit for Campaign for Better Transport. *Supplementary report on environmental and safety impacts of the transport of freight from road to rail on key strategic corridors*. Dec. 2017. www.bettertransport.org.uk/sites/default/files/research-files/MTRU-supplementary-report-on-impacts-of-rail-freight-december2017.pdf
[251] Road Traffic Regulation Act 1984. www.legislation.gov.uk/

Through planning permission and Section 106 agreements, Cycling UK therefore recommends that local authorities should:

- Oblige all operators to use vehicles designed to comply with DVS (see 4.1.1) and conform to the CLoCS standard (see 4.1.5);
- Stipulate the routes lorries must take (see 4.1.3);
- Require that construction sites are suitable for vehicles fitted with safety features (e.g.: sideguards);
- Insist that all drivers are given cycle awareness training (see 2.2).

Whilst it would be local authorities imposing such conditions or Section 106 agreements, national government could encourage this through planning guidance.

Both national and local government can also support the adoption of lorry safety standards through the procurement of public contracts. Examples include the HS2 rail project, highway construction work and refuse disposal contracts.

Case study: London's Safer Lorry Scheme

London's 'Safer Lorry Scheme', set up by the Mayor and TfL in collaboration with London Councils and Heathrow Airport in 2015, uses a combination of their powers to ensure that only HGVs with basic safety equipment are allowed on the capital's roads.

Covering all HGVs over 3.5 tonnes including construction vehicles, requiring most vehicles that are currently exempt from national legislation on certain safety equipment (i.e. additional mirrors and sideguards[1]) to be retrofitted. Compliance with the scheme is high, and the SLS is an example which other authorities in major cities should follow.

https://tfl.gov.uk/info-for/deliveries-in-london/delivering-safely/safer-lorry-scheme#on-this-page-1

Construction Logistics and Community Safety standard (CLoCS)

4.1.5 CLoCS (Construction Logistics and Community Safety) standard should be adopted as a national standard for safer lorry equipment, driver training and fleet management.

Drawing on best practice, CLoCS[252] is a common standard designed to protect VRUs from the risks posed by HGVs, specifically on construction projects, and is implemented by construction clients through contracts.

One of CLoCS' strengths is that it has been developed through collaboration between construction clients, logistic operators and industry associations, and therefore enjoys a significant level of

[252] http://www.clocs.org.uk/standard-for-clocs/

support. Also, it covers the role of the contracting client (i.e. the developer), as well as the construction and/or delivery companies undertaking work for them.

It sets detailed minimum requirements covering:

- Quality operations;
- Collision reporting;
- Traffic routing;
- Vehicle blind-spot minimisation;
- Warning signage;
- Under-run protection (sideguards);
- Vehicle manoeuvring warnings;
- Training and development;
- Driver licensing.

CLoCS grew out of lorry safety commitments made by TfL and Crossrail Limited during the passing of the Crossrail Bill (now the Crossrail Act), following a petition by Cycling UK. As noted above, Cycling UK now recommends that the Government supports it as a national standard for all construction lorry operations.

This would help ensure that local authorities, other public sector bodies and all other organisations who contract such services are able to identify operators who abide by the highest safety standard, and specify CLoCS and the national Direct Vision Standard (once agreed) as conditions for planning permission, or S. 106 agreements.

Importantly for the construction industry, which is understandably resistant to different standards being set by different city authorities around the UK, a national standard would ensure that the same standards applied everywhere.

Finally, the work-related risk requirements identified through CLoCS are also a good model for HGV contractors working in other fields (e.g. refuse collecting) to adapt to promote VRU safety and reduce risk.

4.2 Autonomous vehicles

Headline recommendation:

4.2 Ensure that the development of autonomous vehicles, and the legislation governing them, takes account of cycle and pedestrian safety.

Supporting recommendations

4.2.1 In the short-term, the DfT must ensure that autonomous and advanced driver technologies can operate safely around pedestrians and cyclists before permitting their further use.
4.2.2 Level 3 automation should be bypassed altogether in the roadmap to fully autonomous systems.
4.2.3 The Government must take steps to ensure that, with the arrival of AVs, good conditions for active travel are enhanced for the sake of public health and the environment.
4.2.4 The Government must legislate: against the misuse of AV technology; to ensure there is a legal entity responsible for incidents involving AVs; and to include AV sensors within Construction and Use Regulations.
4.2.5 The enforcement of traffic laws needs to be restructured so that it can apply to AV manufacturers/operators.
4.2.6 Legislation must ensure that data from AVs are readily accessible to law enforcement officials, both remotely and directly from the vehicle.

The arrival of autonomous vehicle (AV) technology will have profound effects on pedestrian and cyclist safety, and this will be contingent on how they are regulated.

Using the Society of Automotive Engineers' six levels of automation (see the next page), the DfT suggests that the term ADAS (Advanced Driver Assistance Systems) be used for partially automated vehicles up to Level 2. This already exists in some at-market vehicles, including technologies such as lane control devices, advanced cruise control and automated emergency braking.

These systems, which still require the driver to pay attention at all times, are gradually becoming better at handling more and more of the driving task. They are now being marketed almost as semi-autonomous systems - the 'conditional automation', known as Level 3.

Defining 'Autonomous vehicles' and the six levels of automation

SAE level	Vehicle characteristics	DfT term	Time frame*	Impact on safety*
0	No assistance for the driver		Current	Status quo (220k injuries/year)
1	Driver assistance - either assisted steering (lane control) or acceleration/deceleration (emergency braking).	ADAS	Some current vehicles	Possible reductions from rear-ending. Risk of driver reliance on safety features.
2	Partial automation - multiple systems providing driver assistance.	ADAS	A few existing vehicles	Possible reductions from rear-ending. Risk of driver reliance on safety features.
3	Conditional automation - optional full automation with driver required to be ready to resume control.	AV	In testing. Close to market.	Potentially high risk if distracted driver has to take over in risky situation.
4	High automation - vehicle can achieve nearly all driving tasks independently, but driver input is optional.	AV	Some companies claim it will be ready by 2021	Risk likely to be eliminated from controlled roads (motorways), but could be increased where drivers have to resume control, e.g. on rural or urban minor roads.
5	Full automation - vehicle has complete autonomy and requires no human input.	AV	>2025, with total fleet coverage decades thereafter	Likely to resolve 90-95% of traffic crashes with mature technology and full market penetration.

Figure 5: Levels of automation and equivalent DfT term.
*Impacts and time frame as assessed by Cycling UK.[253]

[253] Society of Automotive Engineers International (SAE), as reproduced in: House of Lords Science and Technology Committee. *Connected and Autonomous Vehicles: the future?* March 2017. https://publications.parliament.uk/pa/ld201617/ldselect/ldsctech/115/11502.htm

The dangers of semi-autonomous systems

4.2.1 In the short-term, the DfT must ensure that autonomous and advanced driver technologies can operate safely around pedestrians and cyclists before permitting their further use.

4.2.2 Level 3 automation should be bypassed altogether in the roadmap to fully autonomous systems.

Using a human driver to supervise a semi-autonomous system is fraught with danger. Psychological research - and real-world examples - suggests that without the constant need to contribute to the driving task, many supervising drivers quickly stop paying attention, and are unlikely to be ready to take control when the AV needs human input.[254]

This means that, while ADAS may prove beneficial to those inside vehicles, they are unlikely to improve safety for pedestrians and cyclists outside, and may in some cases make the situation worse by leading to inattentive driving. This risk has already become apparent in a well-publicised case where a test driver allowed their AV to hit and kill a pedestrian who was walking their bike across a road in the USA.[255]

In the short-term, therefore, the DfT must ensure that autonomous and advanced driver technologies are safe around pedestrians and cyclists before permitting their further use. They must, for example, be able not only to reliably detect VRUs, but predict their movements too. At present, cyclists are trained to negotiate for space with drivers by using hand signals and making eye contact. If they are no longer able to do this, a safe and convenient alternative will need to be developed so that AVs do not become a fundamental threat to the safety and freedom of movement of people walking or cycling.

We also urge the Government to ensure that, *in advance* of the rapid uptake of these vehicles, laws exist to penalise operators of ADAS technology for the misuse of their vehicles (see below for more on regulation).

Cycling UK agrees with the House of Lords Science and Technology Committee,[256] as well as many AV systems developers including Waymo and Ford, that Level 3 technology vehicles - where human control can be switched on and off - is the wrong solution, and should be avoided. To ensure the continued safety of road users, therefore, the Government must commit to a roadmap that skips Level 3 automation entirely.

In terms of the six levels of automation, then, Cycling UK believes that benefits from autonomous vehicle technology only begin to be attained at Level 5 (and some Level 4 vehicles), i.e. vehicles that are not under human control. Only these fully autonomous vehicles will offer genuine safety benefits for cyclists and pedestrians. The DfT thus needs to clarify the large difference between

[254] Carr, N. *The Glass Cage: Automation and Us.* 2014. New York: W.W. Norton & Company, p. 91.
[255] www.theguardian.com/technology/2018/mar/22/video-released-of-uber-self-driving-crash-that-killed-woman-in-arizona
[256] House of Lords Science and Technology Committee. *Connected and Autonomous Vehicles: the future?* March 2017, paragraph 131.

driverless AVs and vehicles at Level 4 (or even Level 3), where the driver is still required either to supervise, or to take over outside a prescribed area.

The emergence of autonomous vehicles: positive and negative scenarios

How markets, individuals and companies will respond to the emergence of AV technology (as distinct from ADAS) is an unknown. Now is a good opportunity, therefore, to shape our AV future with regulation to secure positive policy outcomes. It may well be, though, that existing industries and companies vested in human-controlled vehicles will oppose or reject AV technologies if they threaten their interests.

The positive scenario is one in which a fully regulated fleet of AVs quickly becomes first the dominant, then the only form of motorised traffic, with human-controlled vehicles disappearing.

With AVs regulated to travel at safe speeds and subject to greater access restrictions in urban areas, pedestrians and cyclists will enjoy much higher priority. This will be facilitated by the fact that a rapid shift to AVs may reduce the value of the personal vehicle ownership model, an eventuality that would, in turn, allow for the reallocation of road-space (e.g. from parking). This would, again, have the potential to improve conditions for cycling substantially.

Furthermore, road-sharing between cyclists and vehicles will become easier and safer on more streets.

Finally, shared-mobility platforms will give people more incentive to cycle for short trips.

The negative scenario is one in which autonomous technology is opposed by vested interests, is slowly adopted and ADAS instead becomes more widespread, serving only to augment and ease the driver experience, with humans still in control of vehicles where they wish. AVs will still emerge, but they will be expected to follow and accommodate human driver behaviour, and pedestrians and cyclists will remain at risk.

The mix of AV and human drivers may also increase the need for pedestrians and cyclists to be regulated to prevent them 'disrupting' traffic in a more chaotic system.

Additionally, weak regulation and planning may mean that AVs will be used to allow new developments to sprawl, with their lower densities making walking and cycling less attractive.

The possible winners and losers from these scenarios are outlined in the table below.

	Winners	Losers
Positive scenario:		
• Full AV fleet quickly adopted; • Personal car ownership replaced by shared mobility model; • Strong planning of future cities to prevent AV sprawl; • Human-controlled vehicles regulated off the public network within decades.	• Service operators - i.e. on-demand public transport providers; • Everyone affected by crashes - most crashes between motor vehicles eliminated; • Pedestrians and cyclists - greater sense of safety and thereby reduced barriers; • Public health interests - reduction in air pollution and road casualties by restricting traffic in urban areas; • Residents in areas blighted by traffic and parking - access restrictions more easily imposed through AV technology. Most car parking space repurposed.	• Workforce employed solely in driving - taxi drivers, bus drivers, some freight operators; • Crash industry - manufacturers of vehicles and parts, repair workshops, insurers, lawyers; • 'Keen drivers' - individuals who enjoy operating their vehicles (although driving on private land still on offer).
Negative scenario:		
• Slow take-up of AV; • Model of car ownership continues; • Voluntary use of AV technology means distracted drivers; • Unplanned development means AV used to facilitate sprawl; • Human-controlled vehicles still dominant and set the debate	• Existing vehicle/crash industry - manufacturers of vehicles, parts, insurers, lawyers; • 'Keen drivers' - individuals who take satisfaction from retaining human control, and feel that this is a right; • Peri-urban/suburban property developers - sprawl development permitted as AV technology used to facilitate longer trips.	• Workforce employed solely in driving - regardless of outcome, these workers will be most affected by even a moderate increase in AV; • All road users - road safety problems associated with interactions between AV and drivers; • Pedestrians and cyclists - demand remains suppressed, and even regulated away from AVs; • Public health interests - low modal shift to walking & cycling, road safety problems remain; • Town centres & residential areas - still blighted by over-use & human drivers disobeying limits.

Barriers to realising a positive AV scenario

Various barriers may well prevent our positive AV scenario from becoming reality. First and foremost, AV technology may never fully mature to the point that human drivers can be eliminated altogether. Some suggest that full Level 5 automation - necessary for this scenario to develop - will not become a reality until after 2030.

We are also greatly concerned that, in the push to advance AV technology, companies and regulators both in the UK and other states will begin a regulatory race to the bottom. Without proper safeguards, under-developed AV systems could be allowed too great a leeway to use the road network, placing other road users in danger.

Although the negative scenario depicted clearly has fewer winners, and many more losers, we are concerned that - without regulatory intervention - industries associated with the existing personal motor vehicle industry and allied interests will not voluntarily remove human-controlled vehicles from sale, and therefore the dangerous, negative aspects of the arrival of AV technology will predominate.

A road environment shared by both AV and human drivers could face huge practical problems, with AVs perhaps having to operate well below their efficient capability in order to accommodate human drivers. For instance, AVs operating by themselves could run in close proximity on very narrow roadways, releasing capacity for other uses, such as cyclists; human drivers, on the other hand, would still require the same space for careless manoeuvring and other errors, for which AVs would have to leave extra room. Junction capacity would similarly have to be hugely reduced to cater for human fallibility.

AVs, active travel and public health

4.2.3 The Government must take steps to ensure that, with the arrival of AVs, good conditions for active travel are enhanced for the sake of public health and the environment.

As highlighted to the House of Lords Select Committee, widespread use of AVs could make motorised travel even cheaper than it is presently, and erode more sustainable modes such as walking and cycling.[257] The Government must therefore plan holistically for the arrival of AVs, and aim for clear policy outcomes that will improve public health and the environment by preserving and enhancing conditions for active travel.

[257] *Ibid.* paragraphs 47-53.

Accountability and regulation: mechanisms to properly govern AVs and ADAS systems

4.2.4 The Government must legislate: against the misuse of AV technology; to ensure there is a legal entity responsible for incidents involving AVs; and to include AV sensors within Construction and Use Regulations.

4.2.5 The enforcement of traffic laws needs to be restructured so that it can apply to AV manufacturers/operators.

4.2.6 Legislation must ensure that data from AVs are readily accessible to law enforcement officials, both remotely and directly from the vehicle.

With AV technology still in its infancy, Cycling UK is concerned that ADAS systems already in existence and currently in development will serve only to prevent certain crashes between motor vehicles, and will have the effect of further eroding driver attention and crash avoidance skills. We believe that there is considerable potential for these systems to increase harm, particularly for pedestrians and cyclists who may not be detected by the crude sensors used in these systems.

The Electric and Autonomous Vehicles Bill now in the House of Lords represents a missed opportunity to ensure that the current framework of civil law adequately protects and gives precedence to pedestrians and cyclists.

Cycling UK thus welcomes the Law Commission review into AVs and, in particular, the commitment to determine who is legally responsible for declaring AV technology safe and who is accountable in the case of a crime.

We suggest that the following changes to legislation are required, as a minimum:

- Road Traffic Act 1988 be amended to bring misuse or tampering with autonomous vehicle technology within the definition of dangerous driving (this should be considered as part of a holistic review of careless and dangerous driving offences – we call for this in 2.5);
- Legislation be amended or introduced to ensure that there is a legal entity responsible for incidents involving AVs;
- Legislation amended or introduced to include AV sensors within construction and use regulations;
- Legislation amended or introduced to ensure that data from AVs are readily accessible to law enforcement officials both remotely, and directly from the vehicle (see below).

In addition to changes in the laws themselves, their enforcement also needs to be restructured so that it can apply to manufacturers and operators, as well as drivers.

Data sharing

Sharing data, relating both to the individuals and to the vehicles themselves, is likely to become a highly contested issue. This means that the Government must carefully consider and develop clear, unambiguous arrangements covering how data are shared between operators, insurers and enforcement agencies. This needs to safeguard users' privacy, but at the same time make sure that road traffic law can still be enforced, and other criminal activities counteracted.

Legal changes and wider benefits for active travel

AV technology allows traffic law enforcement to achieve much wider objectives, e.g.:

- **Much more pleasant road conditions for pedestrians/cyclists**, by heavily restricting access to town or city centres or residential areas, and enforcing height and weight limits.
- **A marked difference to speeds**. Speed limits are currently set using a combination of existing speeds and the desired maximum, acknowledging that some drivers will - intentionally or otherwise - disregard them. AVs, however, represent an opportunity to enforce speed limits entirely appropriate to the environment: perhaps 10 or 15 mph on most residential streets. In readiness for AVs, therefore, the DfT must provide a much wider array of possible solutions for lower speed limits and access arrangements.

The Government should therefore use the opportunity of AVs to improve the structure of traffic law to give greater protection and priority to pedestrians/cyclists in line with 2.5.

4.3 EU vehicle safety regulations

4.3 The Government should support the EC's proposals to update the EU vehicle safety regulations to ensure that they are adopted without delay.

On 17 May 2018, the European Commission (EC) published proposals to update the General Safety and Pedestrian Safety Regulations to ensure that modern safety features on vehicles are fitted as standard rather than as options. Many of them will also be integral to AV technology.[258]

The proposals include, inter alia:[259]

- Intelligent speed assistance (ISA) to help drivers keep to speed limits;
- Autonomous emergency braking systems that detect pedestrians and cyclists as well as other motor vehicles;
- Event (accident) data recorders ('black boxes') to record collision details;
- Better direct vision for large vehicles (see 4.1.1).

Given that these are all measures that Cycling UK called for when responding to the EC's consultation on the revision of the regulations in 2017, we urge the Government to get behind them.

[258] http://europa.eu/rapid/press-release_IP-18-3708_en.htm?utm_source=ETSC&utm_campaign=51839e192d-20180517_pr_mobpackiii&utm_medium=email&utm_term=0_3a7b55edbf-51839e192d-103273177
[259] https://ec.europa.eu/docsroom/documents/29343

5 SAFE SYSTEMS MANAGEMENT

While this final section does not relate to any of the questions asked in the CWIS Safety Review's call for evidence, its recommendations will enable continuous improvement to be made to cycle safety. These relate to: road casualty target-setting; resourcing the Strategy; the need for a road collision investigations body; improved access to justice for victims, and more transparency and accountability; and 'presumed liability'.

5.1 Setting road casualty targets

Headline recommendation:

5.1 Set targets to reduce road casualties that also incentivise more, as well as safer, walking and cycling.

In 1988, the UK Government set various targets to reduce road casualties. This was a world-leading step at that time, and many other countries followed the UK's lead.[260]

By the mid-2000s, there was clear evidence that setting targets was itself an effective way to galvanise the political will and resources needed, at both local and national level, to achieve real progress in reducing the burden of road traffic injuries. [261]

When it came to cycling (and to some extent walking), however, the setting of simple casualty reduction targets posed real problems. Tasked with reducing cyclist casualty numbers, road safety professionals faced a perverse incentive to reduce cycle use, contrary to all the evidence showing how increasing it would provide huge net benefits to public health (not to mention helping to tackle congestion, pollution, greenhouse gas emissions etc.).

This prompted Cycling UK to launch its 'Safety in Numbers' campaign in 2009, when the Government was planning to consult on a new road safety strategy. As outlined in our introduction, 'Safety in Numbers' presented new evidence from Britain, and existing evidence from elsewhere, that more and safer cycling can, and should, go hand-in-hand. As well as arguing that any cycle safety measures should seek to reduce danger and fear in order to achieve this effect, we also urged the adoption of targets that would incentivise it.

260 https://ec.europa.eu/transport/road_safety/sites/roadsafety/files/specialist/knowledge/pdf/quantitative_road_safety_targets.pdf.

261 Wong, S et al (2006). *Association between setting quantified road safety targets and road fatality reduction*. Accident Analysis and Prevention, 2006, vol. 38, pp997-1005.

In the consultation document on its 2009 road safety strategy,[262] the Department acknowledged Cycling UK's concern that simplistic targets could create a "perverse incentive" to reduce cycle use. It therefore adopted our proposal for 'rate-based' indicators, i.e. those that would measure the risk of cycling (and indeed pedestrian) serious and fatal injuries per mile travelled, rather than simple casualty numbers. Rate-based indicators were duly adopted in the eventual Strategic Framework for Road Safety (2011).[263]

Commendably, the Cycling and Walking Investment Strategy (CWIS) has retained a rate-based indicator for cycle safety (namely to "reduce the rate of cyclists killed or seriously injured on England's roads, measured as the number of fatalities and serious injuries per billion miles cycled"), though there is no equivalent rate-based indicator for walking.

Yet people walking and cycling - i.e. participating in the activities that the CWIS seeks to increase and normalise - now account for 45% of all fatal and serious casualties on Britain's roads, up from around 30% ten years ago. Given this, Cycling UK believes that any wider road safety targets or indicators which seek simply to reduce an absolute number of casualties should exclude walking and cycling, to avoid even indirectly creating the kind of 'perverse incentive' that the Government was rightly concerned about in 2009.

In other words, no casualty reduction targets should apply to cycling and walking unless they are rate-based.

5.2 Rebalancing transport spending

Headline recommendation:

5.2 Rebalance overall transport spending, making a far greater proportion available for cycling, walking and safer streets, including road and path maintenance.

Supporting recommendations:

5.2.1 The Government should commit to increase the proportion of national transport spending allocated to cycling and walking from around 1% at present to 5% in 2021-2, increasing to 10% over the next five years.

5.2.2 Urban local authorities should be encouraged to set higher percentage spending figures, reflecting their different needs and starting levels.

5.2.3 The ratio of capital to revenue spending on cycling and walking should start at around 70:30, increasing to around 80:20 as the overall investment total rises.

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262 http://webarchive.nationalarchives.gov.uk/20100202185027/http://www.dft.gov.uk/consultations/closed/roadsafetyconsultation/

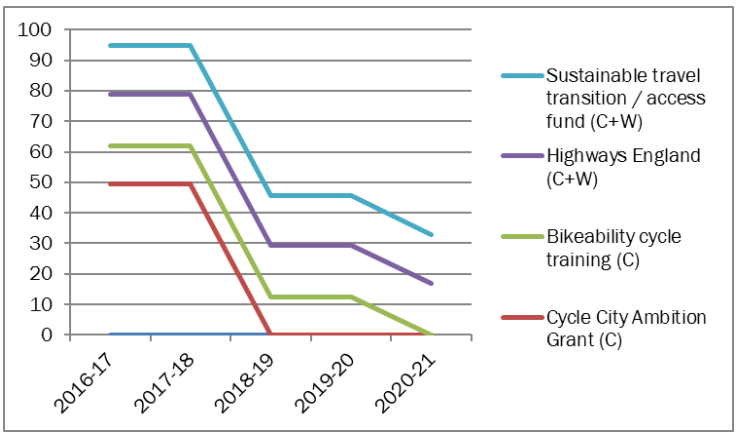
263 www.gov.uk/government/publications/strategic-framework-for-road-safety.

When the CWIS was published in 2017, it identified £1.2bn of funding over five years (2016-7 to 2020-21) that "may" be spent on cycling and walking.

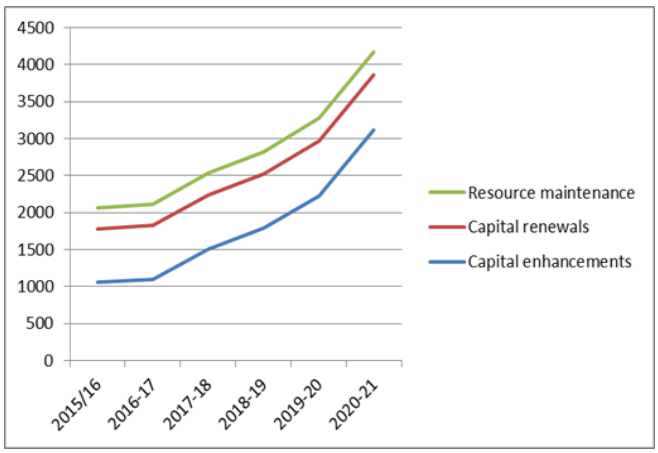
Only £314m of this, however, was specifically earmarked by central government for investing in cycling and walking - the rest was expected to be allocated by local authorities (albeit from general funding streams such as Local Transport Plan and the Local Growth Funds, which stem ultimately from central government). This £314m comprised four funding lines, only two of which were due to last for the full five-year duration of the CWIS:

- £99m to continue the Cycling Cities Ambition Grant programme in eight English cities to 2018/19;
- £50m to continue Bikeability cycle training through to 2019/20;
- £85m for Highways England to deliver walking and cycling improvements along or across its network of trunk roads and motorways;
- £80m for an Access Fund to promote sustainable travel.

With almost half of the above funding being short-term commitments, the Government's own annual investment in cycling and walking was therefore set to decline markedly over these five years: from £95m in 2016/17 (amounting to £2.07 per person annually outside London) to just £33m in 2020/21 (just 72p per person):



This 65% reduction was in marked contrast to the £15.2bn allocated for capital spending on England's motorways and trunk roads (the Strategic Road Network, SRN), via the Government's first Roads Investment Strategy (RIS1). Over the same five-year period, the annual allocations for RIS1 were set to increase from £1.83bn (or £40 per person outside London) in 2016/17, to £3.86bn (or £84 per person outside London) in 2020/21:



These contrary trends in funding are all the more curious given that investment in cycling and walking is recognised by the DfT as having a "very good" average benefit : cost ratio (BCR)[264].

They also help tackle all of the major costs of urban transport identified in a 2009 Cabinet Office review of the costs of transport in English towns. In essence, this review found that the costs of urban congestion, air pollution, physical inactivity and road casualties are all of a similar order of magnitude - each having economic costs of around £10bn in 2009 prices:

Comparison of the wider cost of transport in English urban areas (£ billion per annum, 2009 prices and values)

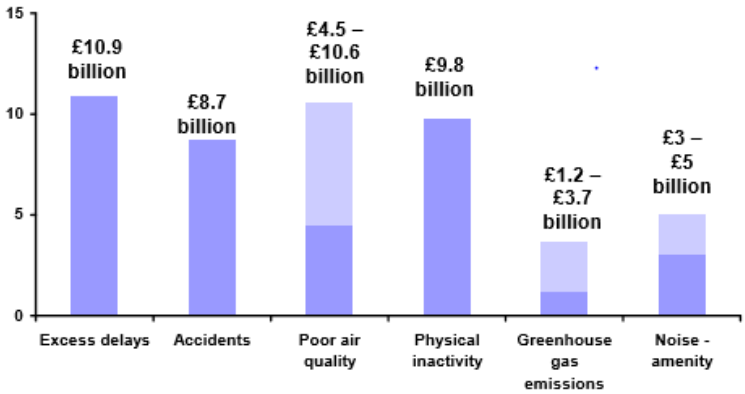


Figure 6: Table from 'The wider costs of transport in English urban areas in 2009'. Cabinet Office. Nov. 2009.

264 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/371096/claiming_the_health_dividend.pdf.

Investing in cycling and walking can help address all the above problems, as well as climate change, noise and other more localised adverse impacts of motor traffic, without presenting any significant downsides. By contrast, motorway and trunk road investment might reduce congestion for inter-urban traffic at 'bottleneck' locations where investment is made, but is also likely to generate increased traffic overall, thereby potentially exacerbating congestion, pollution and other adverse impacts elsewhere.

These more remote adverse impacts are not well understood and rarely monitored. A review[265] of the Government's Post Opening Performance Evaluation (POPE) reports on motorway and trunk road schemes found that road schemes:

- generate more traffic – often far above background trends over the longer term;
- lead to permanent and significant environmental and landscape damage;
- show little evidence of economic benefit to local economies;
- cause widespread damage to biodiversity and worse than expected increases in greenhouse gas emissions, as well as encouraging car-dependent housing and retail development.

Cycling UK therefore believes that, if the Government genuinely wishes to see walking and cycling become the norm for short journeys, and to reduce the external costs of road traffic and motor vehicle dependence, it needs to significantly shift the balance of transport funding from inter-urban roads towards more local transport solutions that encourage active travel.

National funding: how much for cycling and walking?

5.2.1 The Government should commit to increase the proportion of national transport spending allocated to cycling and walking from around 1% at present to 5% in 2021-2, increasing to 10% over the next five years.

The 2013 Get Britain Cycling (GBC) report,[266] written by the All Party Parliamentary Cycling Group (APPCG), called for measures to increase cycling from 2% of trips to 10% by 2025, and to 25% of trips by 2050. To achieve this, it recommended investing at least £10 per person annually on cycling, rising over time to £20.

The Government's more modest target, initially proposed in its draft Cycling Delivery Plan (CPD) and incorporated into the CWIS, is to double cycling trips by 2025.

[265] CPRE. *The end of the road? Challenging the road-building consensus*. March 2017. https://www.cpre.org.uk/resources/transport/roads/item/4543-the-end-of-the-road-challenging-the-road-building-consensus
[266] https://allpartycycling.files.wordpress.com/2013/04/get-britain-cycling1.pdf.

To find out how much these two targets would each generate, Cycling UK commissioned research from Leeds University (2015).[267] This calculated that, in today's money:

- meeting the CDP target would generate annual benefits worth £6.4bn in 2050, and 'discounted' cumulative benefits of £46.4bn;
- meeting the GBC's targets would generate annual benefits worth £42bn in 2050, and a total cumulative benefit between 2015 and 2050 of almost £¼ trillion (£248bn).

Sustrans later estimated (in 2016) that achieving the Government's target to double cycle use over 10 years would require investment of £8bn over that period.[268]

Yet the value of these estimates of required spending are gradually declining in real terms, due to inflation. Moreover, they only covered cycling, as they pre-dated calls for (and the adoption of) a Cycling and Walking Investment Strategy.

Given this, Cycling UK now urges the Government to raise cycling and walking investment to at least 5% of transport spending by 2021 (when its 2nd Roads Investment Strategy is due to start, and when we believe a new CWIS also needs to commence), rising to 10% over the next five years.

Local funding

5.2.2 Urban local authorities should be encouraged to set higher percentage spending figures for cycling and walking, reflecting their different needs and starting levels.

Urban local authorities should also be encouraged to aim for higher percentage spending levels, reflecting their initial starting points.

This policy adopts a precedent set by the City of Edinburgh Council. CEC committed in 2012 to allocate 5% of its transport funding to cycling, rising by 1% per year – it has now reached 12%. This 'ramping-up' policy reflects the fact that most councils would initially find it difficult to scale up their spending in a cost-effective manner. This is because they need time to recruit and train new staff, build up longer-term plans and consult on schemes, before such increased funding commitments could translate cost-effectively into higher levels of spending on the ground.

[267] https://www.cyclinguk.org/press-release/2015-01-19/%C2%A3248bn-economic-benefits-2050-cycling-says-national-charity

[268] www.sustrans.org.uk/sites/default/files/images/files/Achieving%20the%20Government%27s%20targets%20for%20cycling%20in%20the%20Cycling%20and%20Walking%20Investment%20Strategy.pdf.

Ratio of capital to revenue

5.2.3 The ratio of capital to revenue spending on cycling and walking should start at around 70:30, increasing to around 80:20 as the overall investment total rises.

As well as substantially increasing the levels of funding for the CWIS, the Government also needs to achieve a healthy balance between capital and revenue funding.

It is not sufficient to assume either that (revenue-funded) behaviour change measures can substitute for capital investment in quality cycling infrastructure. Nor can it be assumed that new cycling infrastructure will achieve optimal levels of use without behaviour change measures, particularly among groups that are currently under-represented in cycling. Positive encouragement is particularly important, if new infrastructure is to attract usage by women, older people, people with health conditions or disabilities, and people from BME communities, to overcome the perception that cycling is "not for people like me."

DfT-funded research considered the optimal balance of capital and revenue funding for sustainable transport projects in general, though not for cycling and/or walking specifically. It suggests a capital-revenue balance of between 70-30 to 80-20. [269]

Cycling UK recommends that the balance should start initially at around 70-30 in the early stages of a local cycling strategy, increasing to 80-20 as funding levels increase. This reflects the fact that relatively low-cost revenue-funded behaviour change projects can achieve relatively quick wins at a local level, whereas capital schemes take longer to develop. On the other hand, once capital projects start to come on stream (i.e. once the authority in question has recruited staff, developed a network plan and some priority schemes and consulted on them), its capital budget will need to go up both in absolute terms and as a proportion of the total budget for walking and cycling.

5.3 Road collisions investigations body

Headline recommendation

5.3 Set up a road collision investigations body, with a remit purely to recommend measures for preventing future collisions.

The Parliamentary Advisory Council on Transport Safety (PACTS) and others have called for a road collision investigatory body with a similar remit to the 'Accident Investigation Branches' for rail (RAIB), air (AAIB) and shipping (MAIB).

Like them, its role would emphatically not be to seek to apportion blame or legal liability. Rather, it would simply be to identify the causes of collisions (both of individual collisions, and looking for

269 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/606513/cycling-walking-rapid-evidence-assessment.pdf.

common causes of multiple collisions) and to make recommendations on how these might be avoided, or lessened in severity, in future.

These bodies all have the following key characteristics:

- They are independent of any organisation responsible either for delivering services or for regulation or enforcement of safety rules;
- They are staffed by experts;
- They have statutory powers, setting out what types of incidents must be notified to them, and enabling them to require the provision or seizure of evidence;
- Their investigations are carried out on a 'no blame' basis;
- Their investigation findings are made public.

This should be contrasted with the current situation, in which road collisions are investigated by:

- **The police**, whose investigations are primarily to determine whether anyone should be prosecuted, rather than to help learn lessons and avoid collisions in future;
- **Local authorities**, who have a duty (under section 39 of the Road Traffic Act 1988[270]) to "carry out studies into accidents arising out of the use of vehicles" on roads for which it is responsible, and "in the light of those studies, [must] take such measures as appear to the authority to be appropriate to prevent such accidents." Such investigations, however, are not 'independent', hence it is possible that officials may be blind to their own organisations' failings, thereby missing the chance for others to learn lessons. Nor is there any systemic process for sharing their learning with other local authorities;
- **Coroners' courts**, whose investigations are independent and conducted on a no-blame basis (i.e. they are not there to find fault). Coroners, though, are not themselves road collision experts, and in any case their investigations only cover fatal collisions.
- **The DfT's own RAIDS (Road Accident In Depth Studies) process**.[271] This consists of 'no-blame' investigations carried out by independent experts. However, it only covers a few areas of the country, and its findings are not generally made public (albeit for understandable reasons relating to confidentiality, since the participants in road collisions are much more likely to be members of the public rather than professionals, and there is a much greater chance that a criminal investigation will in ensue).

Hence road collisions - particularly non-fatal collisions - are not investigated as thoroughly, independently or transparently as those involving rail, aviation or shipping.

The set-up of a Rail Accident Investigation Branch (RAIB), recommended by the Cullen Review, followed a spate of rail fatalities in the 1980s and 1990s culminating in the Ladbroke Grove crash

[270] www.legislation.gov.uk/ukpga/1988/52/section/39
[271] www.gov.uk/government/publications/road-accident-investigation-road-accident-in-depth-studies/road-accident-in-depth-studies-raids and https://trl.co.uk/projects/road-accident-depth-study-raids.

in 1999. The necessary legislation was passed in 2003; a European Directive gave it further impetus in 2004; and it began work in 2005.[272]

In the four years preceding the RAIB (2001/2 to 2004/5), there had been 18 rail movement fatalities, with another two in 2006/7. Since then, there has only been one rail movement fatality,[273]; and, since the Cullen Review's recommendations were made, a dramatic and steady fall in the annual number of 'potentially high-risk train accidents' (PHRTAs) - from 69 in 2001/2 to 22 in 2016/17.[274]

By contrast, the long-term downward trend in road casualty numbers has plateaued, and even seems to have started rising for serious injuries, particularly for cyclists and motorcyclists.[275]

It is no surprise, then, that the road safety profession is calling for renewed impetus to reduce road collisions, with an independent investigatory body charged with ensuring systematic learning, and driving continuous improvement in safety. After all, this approach has been demonstrably effective for reducing serious incidents and fatalities on the rail network.

We therefore propose expanding RAIDS into a fully-fledged road collision investigation body. We acknowledge that such a body would be a good deal more costly than its rail, aviation and maritime equivalents, given the far greater number of casualties that might merit investigation. But it would build on resource commitments already being made to the RAIDS process, and the additional cost should be weighed up against the human and societal costs of the injuries that could be prevented and lives that could be saved - not to mention the disruption averted due to serious incidents on our roads.

We accept that it will often not be possible to publish road collision investigations in the same way as with rail, aviation and maritime investigations, at least not until any criminal proceedings have run their course. However, the learning process would doubtless still prove valuable to inform the practices and priorities of the road safety profession.

[272] See www.pacts.org.uk/wp-content/uploads/sites/2/TSC-1-RAIB-020.pdf and www.pacts.org.uk/wp-content/uploads/sites/2/170317-RTA-conference-slides-RAIB-Simon-French-final.pdf.
[273] www.gov.uk/government/statistical-data-sets/rai05-rail-accidents-and-safety#table-rai0502.
[274] www.gov.uk/government/statistical-data-sets/rai05-rail-accidents-and-safety#table-rai0503.
[275] www.gov.uk/government/statistical-data-sets/ras30-reported-casualties-in-road-accidents#table-ras30001 and http://researchbriefings.files.parliament.uk/documents/SN02658/SN02658.pdf.

5.4 Access to justice

Headline recommendation:

5.4 Improve access to justice for injured pedestrians and cyclists and the support and information provided for road crash victims.

Supporting recommendations:

5.4.1 Ensure that measures intended to tackle fraudulent whiplash and other road injury claims do not deny VRUs their right to recoup their legal costs in sub-£5,000 cases.
5.4.2 Make data available on the prosecutions, convictions and sentences for road traffic offences involving different road user groups, both as the accused party and as the victim.
5.4.3 Provide road crash victims with better information about the conduct of their cases, to improve the transparency and accountability of prosecution and other decisions.
5.4.4 Adopt the civil law principle of 'presumed liability' for road collisions involving pedestrians and cyclists, whereby drivers involved in collisions would be presumed to be liable to pay compensation to any pedestrians or cyclists injured as a result, unless they can show that the victim was wholly at fault.

Claiming injury compensation: how the UK differs from most other European countries

Pedestrians and cyclists injured in UK road collisions are at a significant legal disadvantage compared with those in most other European countries. The majority of them apply some form of 'presumed liability' principle when deciding who is liable to pay compensation. This means that a driver who is in collision with a pedestrian or cyclist is normally assumed to be liable for any resulting injuries or damages, unless they can establish that the fault lay entirely with the injured victim (Note: in Sweden, the compensation is paid by a national insurance scheme rather than the driver's insurance with similar systems operating in other Nordic countries).

We argue for the civil law principle of 'presumed liability' to be adopted in the UK in 5.4.4 below.

The only European countries which do not apply this principle are the UK, Ireland, Romania, Portugal, Cyprus and Malta. In these countries, the onus rests entirely on injured pedestrians and cyclists to demonstrate 'negligence' on the part of the driver before they can obtain compensation.

This is unjust, bearing in mind that:

- Pedestrians or cyclists involved in collisions with motor vehicles are disproportionately likely to end up being the injured victims. Conversely, it is very unlikely that the driver or any other motor vehicle occupants will be injured in collisions involving a pedestrian or cyclist but no other vehicle (see 2.7);

- Following such collisions, cyclists along with bus drivers are the road user types who are least likely to have responsibility (i.e. 'contributory factors') assigned to them by the investigating police officer (see 2.7).
- Not only are they more likely to be injured, but the resulting loss of memory - or of all their faculties in very serious cases - can also impede the ability of injured pedestrians and cyclists to provide the witness evidence necessary to demonstrate negligence on the part of the driver;
- The driver should, by law, have an insurer to defend them, whereas many injured pedestrians and cyclists in the UK do not (for our views on third party liability insurance, see 2.7.3). Hence, if the driver (or their insurance firm) denies liability, or claims that the injured party was partly at fault (i.e. 'contributory negligence'), the injured pedestrian or cyclist may well have to seek legal representation to defend their entitlement to compensation;
- This routinely allows drivers in the UK (or, in practice, their insurance companies) to seek to frustrate pedestrians' and cyclists' injury compensation claims, either by making spurious allegations of contributory negligence (e.g. that the injury would have been prevented, or been less serious, had the cyclist been wearing hi-viz clothing or a helmet) or denying liability altogether (e.g. claiming that the cyclist "suddenly swerved"). It can then take years, tens of thousands of pounds, and a huge amount of courage for seriously injured cyclists, pedestrians or their families or carers to stick to their guns and not be bullied into accepting unjust reductions in their compensation. Others, of course, feel so pressured by allegations of 'contributory negligence' that they simply give up and accept a lower settlement than they deserve.

A new threat: increasing the 'small claims limit' for road crash injuries

5.4.1 Ensure that measures intended to tackle fraudulent whiplash and other road injury claims do not deny VRUs their right to recoup their legal costs in sub-£5,000 cases.

The Government now proposes to further exacerbate this 'inequality of arms' by proposing to increase the 'small claims limit' (SCL) from £1,000 to £5,000 for all road traffic injury claims. This would effectively deny road crash victims the ability to recover their legal costs for pursuing an injury claim where the value of the 'pain, suffering and loss of amenity' (PSLA) was judged to be less than £5K. We understand, from the personal injury solicitors we work with, that this would affect around 70% of cyclists' injury claims.

The plan is to introduce the change to the SCL at the same time as measures proposed in the Civil Liability Bill (currently before Parliament) are brought into effect. The SCL changes, though, are not included in the Bill (they can be done through secondary legislation, by amending Rule 26.6 of the Civil Procedure Rules[276]).

[276] www.justice.gov.uk/courts/procedure-rules/civil/rules/part26#26.6

The Ministry of Justice's Regulatory Impact Assessment states that the increase in the SCL is part of its wider reform package to tackle what it sees as a growing number of excessive or wholly fraudulent whiplash and 'cash for crash' claims. In response, Cycling UK and others have pointed out that cyclists, pedestrians and motorcyclists hardly ever suffer whiplash claims and that no evidence has been presented of other fraudulent claims either (after all, cyclists are unlikely to put themselves physically in the way of a motor vehicle in order to make a 'cash for crash' claim).

When these points were made in the Lords,[277] Justice Minister Lord Keen of Elie responded by mounting a rather different defence of the proposed SCL changes. He argued that cyclists and other vulnerable road users would not be caught by the whiplash reforms. He pointed (correctly) to the fact that cyclists are excluded from the Bill's definition of whiplash injuries. However, his argument also implied that the SCL increase was not part of the Government's whiplash reform package, contrary to the statement in the MoJ's regulatory impact assessment.

Instead, he argued that the 'small claims track' was intended for straightforward low-value claims where the claimant would not require legal representation. Yet this fails to take account of the complexity of many pedestrian, cycle and motor-cycle injury cases. Unlike injuries to motor-vehicle occupants (where whiplash injuries are common), those suffered by people not enclosed in a motor-vehicle are more likely to arise from direct impacts with hard surfaces (e.g. the bonnet of a motor vehicle, the road) and/or from being crushed. As such, they typically involve injuries to more than one part of the body, and thus require several medical reports.

It also ignores the 'inequality of arms' point made earlier. The victim is less likely to have a good memory of the case. A non-motorised road user is also less likely to have an insurer, and hence legal representation, to support them. They are therefore vulnerable to spurious 'contributory negligence' claims or to a complete denial of liability by the driver, scaring victims into accepting a lower level of compensation than they are entitled to, or dropping the case completely.

We also question why cyclists are caught by a SCL increase to £5k for road collision injuries, when the SCL for equally serious and culpable non-road injuries is only being raised to £2k. How is a cyclist better able to pursue a claim without legal representation for an injury worth up to £5k if it was caused by a collision with a driver, rather than (say) a defect on an off-road cycle track, or a collision with an out-of-control dog?

In short, there is no conceivable rationale for cyclists and other non-motorised users being caught by these changes.

For more on the case against these changes, see Cycling UK's parliamentary briefing for the Lords 2nd Reading of the Civil Liability Bill.[278]

[277] https://hansard.parliament.uk/Lords/2018-04-24/debates/9EE297D1-7EB7-481D-ADAF-70F88B5612F0/CivilLiabilityBill
[278] www.cyclinguk.org/sites/default/files/document/2018/04/1803_dd-rg_hol2nd-rdg_civil-liability-bill_brf.pdf.

Data on prosecutions, convictions and sentences for cases involving different road users

5.4.2 Make data available on the prosecutions, convictions and sentences for road traffic offences involving different road user groups, both as the accused party and as the victim.

At present, road collision data are collected by the police (through the STATS 19 process[279]) which provide information about the types of road user involved, the severity of their injuries, the type of road or junction, the time of day and day of the week, the weather conditions etc. These are published in the DfT's annual Reported Road Casualties Great Britain statistical reports (together with quarterly updates).[280] They are used by highway authorities to identify what improvements may be needed to prevent future collisions.

Separately, the Ministry of Justice (MoJ) publishes data on the numbers of prosecutions and convictions for different offences (including road traffic offences) and the resulting sentencing.[281]

There is no linkage between these two sets of data.

This makes it impossible to tell whether the legal system responds differently to different road user groups, either as the accused party or as victims. In other words, it is impossible to obtain answers to questions such as whether collisions where cyclists are injured are more or less likely to result in a prosecution, or a conviction, than those where drivers, pedestrians etc. are injured.

It is equally impossible to examine whether the legal system responds differently depending on who was responsible: for instance, when pedestrians are injured, are there differences in the chances of a prosecution or conviction depending on whether they were in collision with a car, a taxi, a lorry, a motorcycle or a pedal cycle – and does this affect the resulting penalties?

It should be possible to link these two without breaching any principles of data anonymity, by attaching an identifier code to each incident recorded in the STATS 19 database that can then be used to track any associated prosecutions, convictions and sentencing in the MoJ data. How the justice system responds to road traffic incidents would thus become much more transparent.

Linking up statistics between departments should be part of a process of increased co-operation, which the DfT could facilitate by reinstating their 'Justice for VRU Working Group'. Historically, this involved the DfT, MoJ, Home Office, CPS and VRU groups including Cycling UK and RoadPeace.

279 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/230590/stats19.pdf
280 www.gov.uk/government/statistics/reported-road-casualties-great-britain-annual-report-2016.
281 www.gov.uk/government/uploads/system/uploads/attachment_data/file/614426/motoring-tool-2016.xlsx.

Transparency in individual cases

5.4.3 Provide road crash victims with better information about the conduct of their cases, to improve the transparency and accountability of prosecution and other decisions.

There is also a lack of transparency about how the justice system responds at the individual level. Road crash victims and their bereaved families are often not notified of key decisions about the conduct of their cases, e.g. when a decision has been made to prosecute merely for a 'careless' offence rather a 'dangerous' one, or to send the driver on a training course rather than prosecuting them.

Even when victims are notified of these decisions, it is often unclear who has made them (e.g. the Police or the Crown Prosecution Service) and for what reasons. This makes it hard for road crash victims to challenge decisions affecting their cases which they believe to be wrong. It also makes it impossible to tell, at an aggregate level, why prosecution and conviction rates for different offences change over time.

Better data is needed to improve the transparency and accountability of the legal system, so that road user and victims' groups can have confidence in how it is operating, or can challenge it more effectively if they have grounds for suspecting that it is not operating as it should.

'Presumed liability'

5.4.4 Adopt the civil law principle of 'presumed liability' for road collisions involving pedestrians and cyclists, whereby drivers involved in collisions would be presumed to be liable to pay compensation to any pedestrians or cyclists injured as a result, unless they can show that the victim was wholly at fault.

The issues raised by the Civil Liability Bill (see 5.4.1) would be less of a concern if the UK were to follow the lead of most European countries by introducing 'presumed liability' laws.

The justification for these has been outlined earlier (see 2.7.3). The likely benefits of such a change are:

- Drivers could be expected to drive with greater caution in the presence of pedestrians and cyclists, if they were mindful that they would be likely to be liable (and thus in practice to lose their no claims bonus) if they injured a pedestrian or cyclist.

  N.B. This point is impossible to prove one way or the other, since the widespread adoption of 'presumed liability' laws in other countries dates from the 1920s (France, the Netherlands and others have passed more recent laws updating and strengthening the principle, e.g. the 1986 Loi Badinter in France and the Dutch Article 185, the Wegenverkeerswet (Road Traffic Act) of 1994).[282] However, the principle itself had been established much earlier, at a time when motor vehicles were relatively uncommon and

[282] Ernst W (ed). *The development of traffic liability.* Cambridge University Press, 2010

road traffic statistics were not being collected. Hence it is impossible to look for 'before and after' case studies to see the effects of such laws. It is reasonable to assume they are likely to make some difference to the behaviour of at least some drivers, but the size of any such effect is impossible to tell.

- Victims would be able to obtain compensation more quickly, with less distress and delay, and with lower costs to both parties. There would be fewer cases where liability was disputed, as drivers would have less scope to make spurious counter-claims.

It is true that drivers' insurance schemes would, in some cases, end up paying out compensation where the victim had in fact been at fault but where the driver was unable to prove it. Given that drivers have compulsory insurance, though, this is surely less of a problem than the reverse situation, where a severely injured pedestrian or cyclist is maimed for life through a driver's negligence, but their memory loss prevented them from proving negligence to the satisfaction of the courts.

The idea that pedestrians and cyclists should be entitled to compensation without having to prove the driver was at fault has been proposed time and time again:

- 1934: first mooted in the Road Traffic (Compensation for Accidents) Bill in 1934, proposed by Lord Danefort.
- 1978: recommended by a Royal Commission.
- 1982: advocated by Lord Denning, shortly after he retired as Master of the Rolls (see below).
- 2006: proposed by the Safer Streets Coalition (of which Cycling UK was a member) as an amendment to the Road Safety Act 2006.
- There is a strong campaign for it in Scotland.

It is now time to implement it.

> "In the present state of motor traffic I am persuaded that any civilised system of law should require, as a matter of principle, that the person who uses this dangerous instrument on the road dealing death and destruction all round should be liable to make compensation to anyone who is killed or injured in consequence of the use of it. There should be liability without proof of fault. To require an injured person to prove fault is the gravest injustice to many innocent persons who have not the wherewithal to prove it."
>
> **Lord Denning, former Master of the Rolls, 1982**

Appendix: our recommendations & DfT's Qs

Safe roads and junctions

	Recommendation	Q1	Q2	Q3	Q4	Q5	Q6	Cross-cutting
1.1	**Establish consistent design standards to ensure cycle and pedestrian-friendliness is designed in from the outset into all highway and traffic schemes, new developments and highway maintenance work.**	✓						
1.1.1	Road design principles must be re-aligned to focus on movement of people rather than vehicles. In addition, design principles must extend to improving overall health, not just reducing road casualties, along the lines of Transport for London's Healthy Streets approach.	✓						
1.1.2	The Government must ensure that all local authorities have the incentives and resources to prepare ambitious long-term plans for cycling and walking infrastructure, using the Local Cycling and Walking Infrastructure Plan (LCWIP) approach.	✓						
1.1.3	The Government should update, improve and rationalise cycle design guidance to incorporate the latest thinking in cycling infrastructure. This updated guidance needs to be consistently applied with mechanisms to ensure compliance by local authorities.	✓						
1.1.4	Spatial planning policies must be improved to place higher priorities on walking and cycling, with provision for these modes prioritised in future layouts, and tests imposed on developments to ensure easy, safe access to local services.	✓						
1.1.5	Major infrastructure projects must be cycle-proofed to build cycling in from the start.	✓						
1.1.6	Significantly greater investment is required to ensure the existing road and street network is brought up to the standard required to enable people to cycle in safety and comfort.	✓						
1.1.7	Road maintenance must be better resourced and refocused to ensure that all parts of the highway are accessible, safe, and greater priority is given to active travel routes.	✓						

Safe roads and junctions (continued)

No.	Recommendation	Q1	Q2	Q3	Q4	Q5	Q6	Cross-cutting
1.2	**The Government should introduce new rules for junctions, affording greater safety and priority for cyclists and pedestrians at both signalised and unsignalised junctions.**	✓						
1.2.1	The Government must resolve the conflicts in transport policy, guidance and practice that currently undermine the ubiquitous implementation of the 'hierarchy of users' and, in doing so, compromise safe road conditions for pedestrians and cyclists.	✓						
1.2.2	The Government must implement the suggestions set out in 'Turning the Corner' to further simplify pedestrian and cycle crossings - both signalled and unsignalled - to provide better, continuous walking and cycling networks in local areas. Clear, unambiguous priority for pedestrians and cyclists over turning traffic should be enforced through alterations both to The Highway Code and legislation.	✓	✓					

Safe road users

No.	Recommendation	Q1	Q2	Q3	Q4	Q5	Q6	Cross-cutting
2.1	**Cycle safety awareness campaigns must be positive, based on fact and linked to enforcement activity.**		✓		✓		✓	
2.1.1	All drivers must be made aware of and understand cyclists' needs and respect their safety.				✓		✓	
2.1.2	Awareness campaigns and materials aimed at drivers and/or cyclists must be: based on sound research, accurately targeted, positive and non-judgemental; and avoid victim-blaming.				✓		✓	
2.1.3	Driver education/awareness campaigns must be linked to enforcement activity.		✓		✓		✓	
2.1.4	Schools and colleges should teach children about responsible road use, and promote positive messages about cycling and cycle safety.				✓		✓	
2.2	**Cycle safety awareness should be integral to the driver training, testing and licensing process.**		✓	✓	✓		✓	
2.2.1	The DfT should commission a formal study of the long-term effect that Bikeability training in school/college has on road safety, learning to drive and driving standards.			✓	✓		✓	
2.2.2	Driver training and testing processes should give greater to hazard perception, to understanding the reasons why traffic rules matter, and to cycle safety awareness.			✓	✓		✓	

Safe road users (continued)

No.	Recommendation	Q1	Q2	Q3	Q4	Q5	Q6	Cross-cutting
2.2.3	The Government should introduce a form of Graduated Driver Licensing.		✓	✓				
2.2.4	Trainee drivers should be incentivised to complete 'Bikeability training to Level 3, e.g. through discounts on insurance and on the conditions imposed under any future Graduated Driver Licensing system. Bikeability Level 3 training should be mandatory for the drivers of large vehicles, and for driving instructors.		✓	✓	✓		✓	
2.2.5	The Government should consider regular retesting and other interventions to ensure the retention of good driving habits and to remove bad and/or medically unfit drivers from the road. These processes are particularly important for older drivers.		✓	✓				
2.2.6	A special extended re-test linked to remedial training should be compulsory for: disqualified drivers; those who have accumulated 12 points; and drivers who have committed any serious road traffic offence. Drivers whose behaviour towards cyclists has been brought to the attention of the police should be sent on an NDORS-style cycle awareness course.		✓	✓	✓		✓	

Safe road users (continued)

No.	Recommendation	Q1	Q2	Q3	Q4	Q5	Q6	Cross-cutting
2.3	**Roads policing should be strengthened, both to deter irresponsible road behaviour and to improve the quality of road crash investigations.**		✓		✓		✓	
2.3.1	Roads policing should be prioritised by national government, and included in the Strategic Policing Requirement in England and Wales.		✓					
2.3.2	The police should be required to refer serious injury collisions to the CPS for a charging decision, not just those that result in a fatality.		✓					
2.3.3	The Home Office should act on the recommendations of the Transport Select Committee, and commission research on how collisions or near misses are handled by the police.		✓					
2.3.4	The National Police Chief's Council should be encouraged to follow the lead of police forces in Wales, to create a similar online reporting portal across England to facilitate the submission of dash, bike and helmet-cam footage of irresponsible road use.		✓					
2.3.5	The College of Policing's 'Investigating Road Deaths' guidance should be extended to cover serious injury cases.		✓					
2.3.6	Police forces should be encouraged to adopt operations which combine enforcement and education to promote safety for vulnerable road users.		✓		✓		✓	

Safe road users (continued)

No.	Recommendation	Q1	Q2	Q3	Q4	Q5	Q6	Cross-cutting
2.4	**Ensure that other bodies with an enforcement and/or regulation role in road safety play their part effectively.**		✓					
2.4.1	The Health and Safety Executive (HSE) should take a more proactive line over work-related road safety and should receive adequate funds to do so.		✓					
2.4.2	The Government should establish a national scheme to promote collaboration between responsible agencies (e.g.: police, DVSA, local authorities and the HSE), based on the model of TfL's London Freight Enforcement Partnership.		✓					
2.4.3	To enable Traffic Commissioners to use their powers effectively to regulate irresponsible HGV operators and drivers, they should be adequately resourced with systems introduced to ensure timely notification of concerns and investigations.		✓					
2.5	**Carry out a comprehensive review of road traffic offences and penalties.**		✓					
2.5.1	The legal definitions of 'careless' and 'dangerous' driving, and their associated penalties, should be reviewed or replaced by an alternative legal framework.		✓					
2.5.2	Greater use should be made of substantial driving bans in cases where the driver's actions have caused harm but where they are not obviously a dangerous person who needs to be locked up for the public's protection. Convicted drivers should not be able to routinely evade driving bans by claiming this would cause 'exceptional hardship'.		✓					
2.5.3	A new offence of causing death or serious injury by car-dooring should be introduced.		✓					
2.5.4	There should be increased penalties for 'failing to stop' offences where the driver must or should have known there was a possibility of a serious or fatal injury.		✓					
2.5.5	Part 6 of the Traffic Management Act should be commenced, so that local authorities can take on responsibility for enforcement action against those who infringe mandatory cycle lanes and commit other 'moving traffic offences'		✓					

Safe road users (continued)

No.	Recommendation	Q1	Q2	Q3	Q4	Q5	Q6	Cross-cutting
2.6	**Revise the Highway Code**	✓	✓		✓		✓	
2.6.1	The rules on overtaking cyclists should be made clearer, to include a minimum distance guideline.		✓		✓		✓	
2.6.2	The rules should contain clearer guidance about opening car doors safely, and include advice on the 'Dutch Reach'.		✓		✓		✓	
2.6.3	New rules on junction priority should be introduced to improve safety and convenience for pedestrians and cyclists at junctions.	✓	✓		✓		✓	
2.6.4	Legally prejudicial rules on helmets and hi-viz clothing for cyclists should be removed.		✓					
2.7	The Government should avoid introducing measures in the name of 'cycle safety' that could reduce cycle use.	✓	✓		✓			
2.7.1	The causes of offending behaviour should always be investigated.	✓	✓		✓			
2.7.2	Road traffic rules and their enforcement must protect, not undermine, cyclists' safety. Where there are conflicts between them, the police should exercise discretion in enforcing the rules, until such time as they can be amended.		✓					
2.7.3	Do not make training, testing, licensing or insurance compulsory for cyclists/cycles.		✓					

Safe road users (continued)

No.	Recommendation	Q1	Q2	Q3	Q4	Q5	Q6	Cross-cutting
2.8	**The Government should strengthen funding for Bikeability so that every child has the chance to qualify at least to Level 2, and preferably to Level 3, free of charge before they leave school/college.**		✓	✓	✓		✓	
2.8.1	The Government should require local authorities and schools to collect data directly from pupils on the impact of Bikeability training, and provide the tools to do this.			✓	✓		✓	
2.8.2	National standard cycle training should be included in the National Curriculum.			✓	✓		✓	
2.8.3	Cycle training should be systematically enrolled as a measure to prevent and correct anti-social and illegal cycling behaviour.		✓	✓	✓			
2.8.4	To maintain quality assurance, national government should continue to maintain/support: the National Standard; the training of National Standard Instructors (NSIs); regular reviews; quality assurance processes and registration systems; and an accessible national database of qualified NSIs.			✓	✓		✓	

Safe speeds

No.	Recommendation	Q1	Q2	Q3	Q4	Q5	Q6	Cross-cutting
3.1	**Make 20 mph the default speed limit for most streets in built-up areas, with 30 mph (or higher) limits being the exception that requires signing, not the other way round.**	✓	✓					
3.1.1	20 mph streets should look and feel like 20 mph streets, with the local community involved in the design to maximise local support.	✓	✓					
3.1.2	A default limit of 40 mph should be adopted for minor rural roads.		✓					
3.1.3	Speed limits need to be enforced actively by the police, supported by zonal cameras, Intelligent Speed Adaptation (ISA), and driver education.		✓					

Safe vehicles

No.	Recommendation	Q1	Q2	Q3	Q4	Q5	Q6	Cross-cutting
4.1	**Lorry safety needs to be improved, focussing on safe lorry design and equipment, enforcement of rules covering driver, vehicle and fleet safety, and demand reduction measure.**					✓		
4.1.1	The Government should introduce a national 'direct vision standard' (DVS) for HGVs, to enable lorry permit schemes, modelled on the scheme being introduced in London, to be adopted in urban areas throughout the country.					✓		
4.1.2	Cycling UK supports both the DVS and the concept of a 'Safe system' approach, but agrees with TfL's proposals to base the star rating system purely on the vehicle's direct vision, rather that combining the DVS and 'safe system' so that the star ratings relate to the overall safety of the vehicle.					✓		
4.1.3	National and local government should take steps to help reduce the demand for HGV movements in urban areas, and at the busiest times. These should include the promotion of cargo bikes.							✓
4.1.4	National and local authorities should be encouraged to use their powers to regulate HGV traffic, both under the Road Traffic Regulation Act 1984, through their procurement power and via planning permission conditions or S.106 agreements. These should be supported through planning guidance.		✓					
4.1.5	CLoCS (Construction Logistics and Community Safety) standard should be adopted as a national standard for safer lorry equipment, driver training and fleet management.							✓

Safe vehicles (continued)

No.	Recommendation	Q1	Q2	Q3	Q4	Q5	Q6	Cross-cutting
4.2	Ensure that the development of autonomous vehicles, and the legislation governing them, takes account of cycle and pedestrian safety.		✓			✓		
4.2.1	In the short-term, the DfT must ensure that autonomous and advanced driver technologies can operate safely around pedestrians and cyclists before permitting their further use.					✓		
4.2.2	Level 3 automation should be bypassed altogether in the roadmap to fully autonomous systems.					✓		
4.2.3	The Government must take steps to ensure that, with the arrival of AVs, good conditions for active travel are enhanced for the sake of public health and the environment.					✓		
4.2.4	The Government must legislate: against the misuse of AV technology; and to ensure there is a legal entity responsible for incidents involving AVs; to include AV sensors within Construction and Use Regulations.		✓			✓		
4.2.5	The enforcement of traffic laws needs to be restructured so that it can apply to AV manufacturers/operators.		✓			✓		
4.2.6	Legislation must ensure that data from AVs are readily accessible to law enforcement officials, both remotely and directly from the vehicle.		✓			✓		
4.3	**The Government should support the EC's proposals to update the EU vehicle safety regulations to ensure that they are adopted without delay.**		✓			✓		

Safe systems management

No.	Recommendation	Q1	Q2	Q3	Q4	Q5	Q6	Cross-cutting
5.1	**Set targets to reduce road casualties that also incentivise more, as well as safer, walking and cycling.**							✓
5.2	**Rebalance overall transport spending, making a far greater proportion available for cycling, walking and safer streets, including road and path maintenance.**							✓
5.2.1	The Government should commit to increase the proportion of national transport spending allocated to cycling and walking from around 1% at present to 5% in 2021-2, increasing to 10% over the next five years.							✓
5.2.2	Urban local authorities should be encouraged to set higher percentage spending figures for cycling and walking, reflecting their different needs and starting levels.							✓
5.2.3	The ratio of capital to revenue spending on cycling and walking should start at around 70:30, increasing to around 80:20 as the overall investment total rises.							✓

Safe systems management (continued)

No.	Recommendation	Q1	Q2	Q3	Q4	Q5	Q6	Cross-cutting
5.3	**Set up a road collision investigations body, with a remit purely to recommend measures for preventing future collisions.**							✓
5.4	**Improve access to justice for injured pedestrians and cyclists and the support and information provided for road crash victims.**							✓
5.4.1	Ensure that measures intended to tackle fraudulent whiplash and other road injury claims do not deny VRUs their right to recoup their legal costs in sub-£5,000 cases.							✓
5.4.2	Make data available on the prosecutions, convictions and sentences for road traffic offences involving different road user groups, both as the accused party and as the victim.							✓
5.4.3	Provide road crash victims with better information about the conduct of their cases, to improve the transparency and accountability of prosecution and other decisions.							✓
5.4.4	Adopt the civil law principle of 'presumed liability' for road collisions involving pedestrians and cyclists, whereby drivers involved in collisions would be presumed to be liable to pay compensation to any pedestrians or cyclists injured as a result, unless they can show that the victim was wholly at fault.		✓					

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