

Future of Mobility in Counties

Smart Mobility Roundtables 22 May 2020

Decarbonisation

This report documents the fifth and sixth in a series of roundtable discussions organised by the Smart Mobility Unit at the University of Hertfordshire and sponsored by Department for Transport and others. The format was two 120 minute virtual meetings via WebEx due to Covid-19 social distancing restrictions.

1.0 Participants

There were 35 participants in total (with 21 in the first session and 14 in the second session). Sectors represented were sectors: national, sub-regional and local government, technology/innovation, mobility provider, transport consultancy, academic research, non-governmental organisations. Stephen Joseph chaired the discussion.

2.0 Aim

The aim of the roundtable was to explore transport decarbonisation of transport in Counties. The Government has set out the challenges it faces in decarbonising transport, while many counties and districts have declared a climate emergency.

The following questions were used to guide the discussion.

- How can places outside cities decarbonise their transport?
- What should they do in the short, medium and long term?
- How can central Government help?

3.0 Papers circulated in advance

- Bob Moran, Deputy Director Head of Environment Strategy, DfT
Powerpoint: Decarbonising Transport Outside of Cities
- CREDS report by Ian Philips, Jillian Anable and Tim Chatterton
E-bike carbon savings – how much and where?
- Richard Walker, DecarboN8 Network Team, University of Leeds
Powerpoint: Decarbonising Transport Outside Cities
- Prof. Greg Marsden, Institute of Transport Studies, University of Leeds
Powerpoint: Decarbonising Transport Outside Cities, Policy Perspectives
- Lisa Hopkinson, Transport for Quality of Life
Decarbonising Transport Outside Cities: Challenges and Possible Directions

4.0 Presentations

4.1 Bob Moran

We are in an unprecedented time and a very active time. DfT is committed to decarbonising transport as signified by the policy paper Decarbonising Transport: Setting the challenge¹ published on 26 March 2020, three days after the UK entered lockdown for Covid-19.

Decisions are taking place rapidly on restarting/recovering from Covid-19. We immediately noticed the improved air quality and want to know how to retain this for the future and reduce carbon emissions from transport. The reaction to the DfT paper published a few days into lockdown was very good.

The Minister anticipated the message to increase walking and cycling and use our cars less would gain some traction but the Covid-19 crisis has proven a major lesson for government in terms of the scale of the

¹ <https://www.gov.uk/government/publications/creating-the-transport-decarbonisation-plan>

behaviour change that is possible and the value of walking and cycling for economic recovery. This is a huge shift for the government and really brings these modes up the agenda.

DfT wants to invite a different kind of discussion. The department has produced masses of strategies in the past but has failed to look at transport as a system. Silo thinking has been a problem. To deliver the scale of change required to decarbonise transport we need a systems approach to drive major change across all parts of that system. E-cars alone will not be enough. There are lots of good strategies already available. We are looking at transport as a system and we need to drive change across all parts of that system.

DfT will develop a plan to deliver setting out who needs to do what by when and now. More than a nudge will be needed and we will need to use some hard sticks.

The policy paper publicly acknowledges that this is a huge challenge. Stakeholders can be assured that DfT knows this is a huge gap to close and big changes are needed, including more use of walking cycling and public transport. These must become the natural first choice for journeys under a certain radius yet to be determined (5,10,15 miles?)

It is very important that the paper says "we will use our cars less in future".

The six main themes have been carefully selected. Freight and Place are particularly important. Place is key for today's discussion. SoS is aware that different locations will need different approaches and the centre should not claim to have the single right solution for everywhere.

4.2 Richard Walker

DecarboN8² is a project of Northern Research Universities. Leeds Institute for Transport Studies leads on transport demand and project management. The focus is for Northern England to be a test bed for innovation, but the issues are relevant to the rest of the UK.

Transport carbon emissions as defined by BEIS are within the scope of influence of Local Authorities. The presentation ranked districts by transport carbon emissions per head within Defra's geographical categories (metropolitan to rural) as used by ONS. Emissions are derived from a government model of road based emissions within a local authority area, including through traffic. Emissions from motorway traffic has been stripped out as Local Authorities have no influence over these.

Other variables examined included population density, IMD deprivation score, cars per thousand population and levels of walking and cycling.

- Key points
- The biggest emitters are outside Metropolitan areas. Shire counties account for 63% of population and 74% of transport carbon emissions.
- The more rural the district, the higher the per capita transport carbon emissions.
- Surprisingly, there is no strong correlation between emissions and any of population density, deprivation and emissions or car ownership levels. This suggests that choices matter. Poor performing local authorities can be challenged to match better authorities with similar geography and demographics.
- The places which seem to be doing well on emissions are very varied, likewise the poorest performing areas. Rutland and Eden (Penrith) are comparable on emissions. This is not deprivation linked. The best performing authorities contain Barrow-in-Furness, Lancaster and medium sized county towns. The 12th worst is East Herts. In the top performing "urban with cities/towns" category, Cambridge is an extreme outlier for cycling. The worst performing "urban with cities/towns" include the most deprived LAs in England including Middlesbrough. Kettering is the worst performing district in this category.

² <https://decarbon8.org.uk/>

- Comparing top and bottom performing districts by CO₂ per capita, some very comparable authorities differ markedly. Mid Devon is good whereas West Devon is poor. Sevenoaks, Aylesbury Vale and Central Beds are good, whilst Winchester, Vale of White Horse and South Cambridgeshire are poor. This might be due to rail accessibility in the area as rail commuting might be a confounding variable. We need to examine why areas, superficially at least, which appear to be very similar perform so differently. This is a big research opportunity.

Conclusions:

- Comparable authorities vary a great deal on transport emissions.
- While there is a question about whether the CO₂ emission data is biased by through traffic, it is what we've got to work with. It is official data even if not ONS level of quality.
- Cycling and walking levels vary a great deal for comparable places, so there is scope for places to raise their game. East Herts for example can't plead population density or deprivation reasons for falling behind districts with similar geographies like Chiltern or Wycombe in Buckinghamshire.
- We need to answer the question what short term measures can the biggest cuts in emissions for the money?

4.3 Greg Marsden

DecarboN8 has been established for over a year. His focus is on place based transport decarbonisation to understand what it is and how different places will vary. We need to know when it makes sense to diverge and when to adopt a common approach. It is also important to understand the costs of making things work in different places.

Excluding the strategic road network (SRN) and based on traffic flow metrics, we can see how carbon emissions from transport are distributed by local area.

The North East Yorkshire MOT data of annual mileage per head of population, shows that Leeds, York and Middlesbrough have relatively low CO₂ per capita but there are other very different places which also perform well. There is no sharp dichotomy. Filey and Scarborough have lower economic activity but have similarly low transport emissions. North Allerton is good despite being a centre with a highly car dependent hinterland.

But we need to decarbonise everywhere. Nowhere should get a free pass.

DecarboN8 is working with the Local Government Association on what Local Authorities can do after having declared Climate Emergencies. Diversity of approach is very important.

Local Authorities have three options to pursue: Avoid, Shift and Improve. The more urbanised authorities are aiming for more modal shift, whereas others are concentrating more on the improve strategy.

AVOID: In terms of avoiding travelling altogether, we can ask what Covid-19 has taught us about the potential for travelling less in different locations. There are some very good opportunities to learn right now about our ability to service people depending on where they live.

SHIFT: This is very difficult at the moment. We can't just say keep funding public transport in the short term because of the long term carbon benefits. When we are clearer on the costs of Covid-19 we will better understand what is possible in terms of funding for shifting transport to other modes.

IMPROVE: This is important everywhere, although each local area will have different opportunities. There are big vehicle fleets in specific areas which could be used more creatively. For example, in rural areas we see lots of farm vehicles and also tankers delivering heating oil, removing slurry and septic tank waste.

The focus on adopting new E-technologies is all about cities, so this is where all the charging points are going. But is this where the uptake and demand will be? Outside cities is where the improve approach will be very important because substitution is not an option. We may have got the focus on electric vehicle technology for cities fundamentally wrong. We need to rethink and ask some difficult political questions if the market won't look at rural locations. Do we need government to take an active role?

The economic co-benefits of electric vehicle technology are fewer outside cities but there maybe social co-benefits. Right now all of our usual cost benefit ratios are up in the air. Journey time savings for example are irrelevant when people are told to stay home. There is an opportunity space for innovation but will it happen?

We need to innovate. Vehicles represent a huge asset base which sits unused most of the time. Car-club models struggle but maybe other sharing models can be found. The financial cost of dependence on private vehicles for people in rural areas means that there may be big financial benefits and social benefits for finding alternatives. The benefits of E-bikes are needed most outside cities. Their range is 15 miles. But we need networks of safe routes to link places. The existing roads are not safe enough. We need to get beyond the mindset of 'rural bus' for modal shift outside cities.

We tend to ignore transport behaviour outside our boundaries but trip attractors and tourism are all part of the problem. We need to take responsibility for the trips made by visitors to a location not just address the travel and emissions of residents.

4.4 Jillian Anable

Jillian spoke to the pre-circulated paper. The bulk of the work was done by Ian Philips at ITS, Univ Leeds. The methodology is microsimulation or population synthesis. This simulates individuals in small local areas and allocates them certain attributes, such as fitness, activity levels based on reliable estimates. This allows the model to suggest the upper limit for the use of e-bikes. The behaviour assumed is reasonable and realistic.

The headline finding is that the mode with the highest capability to reduce car based carbon is e-bikes and the capacity for biggest gains is outside urban areas.

The reason for this is that trips are cities shorter and so well suited to walking and conventional cycling. Also E-bikes will probably have less impact in places with good public transport accessibility. Yet, at present with the single exception of a project in the Lake District, shared e-bike schemes have been installed in big cities

In general we have to look at infrastructure and national strategic cycling network to go alongside it. Different areas will have different capabilities, so a place-based approach is recommended.

The paper says we should try to identify which journeys and places can be de-carbonised. We are very sure that trips under 5 miles can switch to active travel but this will result in very little carbon saving, which can lead to a defeatist mindset. The median car journey length is 5-25 miles, which accounts for the bulk of the emissions. These journeys are typically hard to substitute with any mode other than the car. A third of all the distance travelled by car is accounted for by just three percent of trips. It is very hard to de-carbonise these journeys. They are what probably constitute many of the cars travelling on the A14 through rural areas.

But we can get more sophisticated by including e-bikes which are suitable for longer journeys. Combined with destination shifting we could achieve a bigger shift away from car journeys.

It is therefore very very important to include e-bikes in discussions about decarbonising transport, as much as e-cars. Yet electric bikes were only mentioned once in the governments new paper [REFERENCE] in relation to cargo bikes.

And there has been no mention of e-bikes in terms of Post Covid-19 transport scenarios.

In general ways exist to look at different areas and target initiatives more.

The MOT project looked at the Vehicle Keeper data at LSOA level of geography. This gives access to data on car types, ages, engine sizes and individual annual mileage. This is a great resource for understanding high mileage. It is very clear that the very biggest cars are in households outside cities and, even if they are new, account for the most carbon emissions. We talk about the transition to Electric vehicles and say that rural populations will be the last to adopt them because of concerns about range. So there is a mismatch between the highest emission cars and the place where they can be most easily substituted. A complete change of argument is therefore called for - to transition the rural fleet to lower carbon emitting cars as soon as possible, to hybrid or smaller petrol engines. We need to incentivise this transition and set policies to encourage it. We

should stop looking towards the phase out of diesel engines by 2035 and instead make the cars bought this year to be the least polluting. This is a SHORT TERM OPPORTUNITY WITH A BIG WIN FOR CARBON.

We examined what variables were associated with miles per car and per household at LSOA level in the 'MOT' project. LSOAs with most homeworking were associated with higher emissions from cars. This is because they tend to be the places furthest from workplaces/high car dependent/ nice wealthy multi car/large car household.

The car is going to be of long term importance in certain places, so government needs to develop policy to address this properly straight away.

5.0 Overview of discussion

The discussion is summarised as follows. Detailed comments are recorded in section 6.

5.1 Planning

There was a commonly held, strong concern from academics, consultants and county council transport planners about the planning system and housing targets which encourage car dependent residential developments and regret that planning did not feature in DfT's decarbonisation plan. E-bikes and mobility/accessibility hubs need formal recognition in the planning system.

Quick win: Publication of the National Planning Practice Guidance on Sustainable Transport.

5.2 E-Vehicles

A small but important point that while E-Vehicles have greater potential for carbon savings outside cities, range is no longer a problem and charging at home is more likely to be possible, focus has been mostly on E-cars in cities.

5.3 E-bikes

Participants welcomed the research showing the potential for E-bikes to replace a substantial proportion of car commuting trips. There was widespread agreement that safe infrastructure is needed to ensure widespread take up i.e. a programme of investment in high quality segregated routes parallel to main roads, as per Copenhagen. There were suggestions for how to facilitate consenting for new segregated routes, as well as discussion of the barriers of cost and enforcement. A minority voice recommended promoting E-bikes without segregated routes, to build up demand.

Quick wins:

Restore main roads of the 1950s, built with parallel cycle routes eg Oxford ring road. Likewise from the same era, Stevenage New Town's cycle system could be restored to a full network again.

Cycling and Walking Investment Strategy 2 could address support for a surge in E-bikes.

The National Networks Policy Statement needs to change to enable an express consenting process for cycleways in rural areas to fast track infrastructure to enable wider take up of active travel and E-bikes.

5.4 Shared Car

There was agreement that increasing vehicle occupancy is essential to reducing vehicle miles and concern that Covid-19 messaging is currently deterring vehicle sharing. Unlike public transport, the existing private car fleet represents huge spare capacity for shifting away from single occupancy trips. There was concern at how to make Shared mobility in the private sector work at scale.

5.5 Demand Responsive Transport

While there are various interesting case studies, some including Covid-19 track and trace, there remains concern at the lower financial viability outside cities. A co-benefits narrative might be the key, not asking if DRT can turn a profit where rural bus has failed but can it increase access to essential services with less carbon.

5.6 Mobility/Accessibility Hubs and Town Centres

Hubs were considered in terms of countering the isolation of home working, enabling home working in poor broadband areas, potential for reviving rural settlements, freight aggregation and services at hubs avoiding the need for travel. LAs and LEPs would like to see some good case studies to evaluate the social and employment benefits and potential business case. Covid-19 threatens the viability of some town centres, with a collapse in bus services and the demise of office-based working. Town centre offices could be re-purposed as accessibility hubs.

5.7 Leisure Travel

This was a major subject for discussion due to the substantial carbon emissions from long distance leisure car trips, the blight caused by traffic congestion at tourist destinations, people's willingness to change their travel behaviour once on holiday and the increase in walking and cycling for leisure under Covid-19 lockdown. All agreed that changing travel to the destination is the hardest challenge. Some suggested car free pilots at national parks, using active travel and wilderness as branding concepts. However, LAs and National Parks are not resourced to staff such projects.

Quick win: Funding for a car-free National Park pilot.

5.8 Carbon Accounting

It was noted that the UN convention is that carbon is accounted for in the territory where it is emitted. So Local Authorities are responsible for emissions from through traffic. However one voice felt very strongly that emissions should not be disregarded because the carbon is accounted for 'elsewhere'. It should be accounted for in a way that allows transport initiatives and policies to influence it.

5.9 Seize the Moment

Many participants pointed to the remarkable speed and degree of changes in travel behaviour and policy attention as a result of Covid-19 and called for swift action to consolidate these gains before the impetus is lost. Many fear a swing to private car travel due to fears over contracting the virus on public transport. The increase in working from home needs to be 'locked in'. Likewise capitalise on the public's appreciation of lower traffic, noise and air pollution levels.

Several participants expressed the strong view that long term thinking is unhelpful at this moment and it is a time to be bold, to go faster and further than at any point in history and beware pragmatic default incrementalism. How relevant are 'business as usual' forecasts now? Appraisal needs review.

Quick Win: Government messaging is key in the short term, both on shared and public transport and to signal that it wants the positive changes (active travel and home working) to be maintained and push Local Authorities accordingly.

Quick Win: Slower speeds, quiet lanes.

5.10 Reallocate the Road Building Budget

There was a critique of the scale of the road building budget in the presentation by Lisa Hopkinson. Participants from the NGO Regional Government and Consultant sectors agreed, one suggesting that there is no hope for decarbonising transport otherwise. Suggestions for reallocation included rural broadband, public transport and DRT and infrastructure for electric vehicles and decarbonising freight.

5.11 Local Authority Constraints

Several participants noted that local authorities are constrained by funding, staffing, risk averse culture and lack of powers or duties to act to cut carbon from transport. National carbon budgets for transport would provide benchmarks to measure against.

5.12 Programmes not Pilots

There was a sense that now is the time for big scale deployment to avoid wasting time on 'useless pilots'.

Quick Win: Establish a Transforming Counties Fund along the lines of the Local Sustainable Transport Fund, to include revenue and capital funding.

5.13 Behaviour and Technology

There was a lively discussion (in the chat function in Webex) on the relative merits of technology based solutions versus behavioural approaches to decarbonisation. Some participants were highly concerned that technology alone cannot deliver carbon savings fast enough and embedded carbon in E-vehicles is problematic. Others were pessimistic that even with dramatic and unexpected increases in walking and cycling under Covid-19 lockdown the carbon savings remain inadequate. The sense emerged that destination shifting and bringing services to people will be key and both a behavioural and technological approach is needed. One pointed out that all technological solutions involve behaviour change.

5.14 Sticks and Carrots or Nudges

There was some support for the suggestion that government needs to set out clear responsibility and accountability for decarbonisation of transport. Subnational transport bodies would find this helpful.

Some suggested that car restraint should be on the agenda if clearly articulated and framed positively. The compliance with Covid-19 restrictions shows that people will change their behaviour with the right messaging, policy, funding and legislation.

Others suggested nudges and long term incremental behaviour change.

Quick wins:

Scrappage schemes to include mobility credits not just discounts off new cars.

Bolder changes to first year VED.

5.15 Appraisal

There was agreement that the appraisal system for transport schemes is not at all constraining on carbon. To answer the criticism of LEPs in Lisa Hopkinson's paper one participant pointed out that LEPs are just as constrained by the prevailing appraisal system as Local Authorities and elected members often have regressive views on transport policies.

5.16 Note on potential bias in data from DecarboN8

Participants discussed the potential biases that might account for the spread of transport carbon emissions by local area in the work reported by Richard Walker from DecarboN8.

6.0 Detailed notes of Discussion by Roundtable Participants

The following abbreviations indicate the sector making comments:

ACAD Academic

NGO Non-governmental organisation

CONS Consultant

CC County council

REGG Regional transport body

GOV National government.

INNOV Innovation sector

MOB Mobility services

TP Public transport operator

[CHAT] denotes written contributions made in real time during the spoken dialogue.

6.1 Planning

ACAD: We need to be aware of things that are going in the wrong direction on carbon. MHCLG needs to address the problems with planning policy. The Transport for New Homes (TfNH)³ project has shown the scale of car-based development currently underway. There has been no progress in planning policy for cars since 1985, with the focus on mitigating the perceived extra traffic from new development which leads to some very major road developments. An example is the M11 in Harlow in Herts.

CONS: Agrees that national planning policy has gone backwards in recent years. Despite changes announced to planning policy in 2019, meeting housing targets trumps everything and there is massive pressure for out of town development. We have a totally dysfunctional local planning system at present.

ACAD: Retaining the usual focus on long term planning provides no useful guidance for how to act in this immediate moment. No matter how good the long term plan is, if we continue to build large car dependent housing estates now rather than high density urban developments we have a problem.

ACAD: Concerned about planning policy and the evidence from Transport for New Homes on the actual developments being built. We need to make better links between transport and land use planning in how we address housing and transport provision.

CONS: Under AVOID we need to include planning and new developments. TfNH new research on garden towns and villages is due in June and will look at the gap between the promises and delivery. In some prospectuses we saw visions of nirvana for walking and cycling and what is being delivered in many cases is new roads and motorway junctions.

CONS: On 21/5/20 the Planning Inspector for a garden village in North Essex rejected the plans as unsound⁴ because despite talk of rapid mass transit there was no evidence of delivery. Essex CC is considering a legal challenge.

CONS: Was MHCLG involved in developing the DfT's decarbonisation plan? It is very sad that MHCLG was not involved because of the importance given to PLACE as one of the six main themes. Also there is no reference to planning in the document or to issues that drive transport behaviour.

CONS: The critical urgent thing is we need NPPG on Sustainable Transport published which might get professionals, LAs, consultants and developers to stop pursuing decisions that encourage car dependency in new developments rather than deterring this. All of the policies to achieve this exist already. We need changes to guidance and practice very rapidly.

CONS We need to see DfT and MHCLG collaborating. We need an urgent action list to develop quick wins and rapid change so we don't lose the Covid-19 gains. We need SoS to state that this will need to happen with changes in policy and practice and for the inspectorate to follow with planning decisions accordingly.

CHAIR: Hope MHCLG will attend the place making roundtable.

GOV: Agrees completely and there are regular discussions with MHCLG and they are involved in each others' policymaking. However, joint documents take longer to develop because of the layers of bureaucracy so it was easier for DfT to set out its plan separately. Also this document is not the definitive answer. Most importantly it declares the scale of the problem. Please trust that DfT does understand the scale of the problem and take the challenge seriously. Structurally the team working on the decarbonisation plan has moved now to be next to the Regions, Cities and Devolution teams at DfT.

CC: Agrees strongly with the points about transport and planning and new developments. Trying to deliver active travel in a rural area is very constrained by funding and developer contributions aren't enough to deliver

³ <https://www.transportfornewhomes.org.uk/>

⁴ <https://www.theplanner.co.uk/news/inspector-rules-one-north-essex-garden-community-sound-but-two-others-should-be-struck-from>

meaningful infrastructure. National carbon budgets by sector or by region are helpful. But we are left at county level trying to tackle the planning problem from the wrong end of the process.

CC: We do need land-use planning and integrated transport to build new spaces with more options for people. There are hard constraints for counties because for all kinds of infrastructure we need to spend more than cities; we are connecting smaller places for less benefit in terms of footfall.

ACAD: The Eco towns programme ten years ago included a pilot in Whitehill and Bordon⁵ in Hants. This included plans for mass rapid transit which was never delivered. There is a chicken and egg situation in trying to get good evidence that the investment is worthwhile. If the necessary investment in transport infrastructure to support new developments is missing then we should insist that development is located elsewhere that does have good public transport infrastructure.

CC: There may be a gap at the level of regional planning to handle transport across transport authority boundaries. There should be a planning body for the regions.

ACAD: We overlook the fact that developments in urban settings have an immediate effect on the countryside. The concepts of rural and urban appear to be discrete and separate but they are only constructs. E-cars may have counter effects. Leisure and tourism travel spills over from one to the other location. E-bikes may have unexpected and unplanned new contributions to change the debate of how to decarbonise transport.

NGO:[CHAT] Another untackled question: how do we design an increasingly place-based mobility system that also has a layered architecture (e.g. Strategic Road Network + local cycle network). How much can different counties be treated as independent modules vs having critical interdependencies (e.g. not dumping car traffic on neighbours)?

CONS: Very keen to link planning and transport so that mobility/accessibility hubs and e-bikes are formally recognised in the planning system to assist decision making in rural areas with new development or regeneration projects. We need facilities at individual settlement level or in hub villages. E-bike hire schemes need to be paid for from section 106 funds and run by the communities themselves. We need to avoid building roads and housing developments in the countryside and develop an effective network of walking and cycling routes. This could all be made to change quite fast. There are some signs that planning decisions are changing already.

CONS: RTPI and CCC is working on a local plan based on a zero carbon assumption so we know what they need to look like.

6.2 E-Vehicles

NGO: Agrees with Jillian Anable's point about smaller cars outside cities. Yet EV charging is typically easier in rural areas because most people have off street parking so they can charge at home. Also the narrative about limited EV battery range is out of date. There's a need to bust the persistent myth about EV battery range - these are now 200-300 miles which is fine for all geographies in the UK.

NGO: [CHAT] Jillian is right that BEVs are easier to locate in rural areas and you get more impact by the higher mileages driven. HM Treasury is consulting on reform of 1st year VED⁶ that is a powerful driver of new car decisions.

NGO: There was a Labour Party policy for E-car clubs in villages and small towns. Alan Simpson was behind that one.

6.3 E-Bikes

ACAD: The problem with E-bikes is there is inadequate road infrastructure. Research in 2019 in Scotland found that safety was a major concern, for example where lorries and cars take blind corners on B roads at 70mph

⁵ <http://whitehillbordon.com/> and <https://www.bbc.co.uk/news/uk-england-hampshire-20911094>

⁶ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/871749/VED_final.pdf

and the E-bike maximum speed is 16mph. There are also problems with surfaces for E-bikes. Some Sustrans routes have unsuitable surfaces. E-cargo bikes are excellent for 5mile radius (last rural mile) trips but there must be changes in infrastructure policies.

ACAD:[CHAT] From the research I've conducted, being beside a 50mph lorry, on tight, fast roads (often people travelling above the 60mph speed limit), E-bikes were seen as a challenge. Don't disagree they have a role but we need safety to be put first to give a last and first 3-5mile option.

ACAD: Copenhagen has developed routes along main roads for E-bikes and conventional cycling in rural areas between towns. This infrastructure was explicitly developed to link towns and radiate into the hinterland. In and around Copenhagen the average commute length by all forms of bikes is now over 15km and longer than that for the average car commute.

INNOV: [CHAT] Need more non-urban cycle lanes (e.g. alongside main roads) before bikes or e-Bikes become practical.

REGG: [CHAT] Re cycle routes it's primarily about routes linking towns - I can get around town fairly safely, but if I want to go elsewhere it involves a road with national speed limit whichever direction I go. Some A roads built in the 1930s were constructed with parallel cycling routes (eg Oxford Ring Road and some in Hertfordshire). Some have been grassed over but could now be reinstated.

ACAD: [CHAT] A lot of trunk roads built in the 1930s had continuous cycle paths. Herts CC is consulting on the A414 corridor and this could have high quality segregated infrastructure for E-bikes and conventional bikes.

NGO: There are several challenges in rapidly developing new infrastructure along main roads. Firstly gaining development consent is hard and compulsory purchase may be necessary. Secondly filtering the roads for access for adjoining landowners. Thirdly Local Authorities have no way to police or enforce which vehicle types use new parallel routes. The police have no capacity for effective enforcement. This could be a role for Parish Linesmen⁷ if they were given enforcement powers to enforce modal filters & clean shared electric vehicles.

NGO [CHAT] big issue is crossing the ring roads, motorway junctions by towns. You could quickly unlock new routes by connecting Low Traffic Neighbourhoods in towns with filtered minor rural roads & Rights of Way with upgraded surfaces

NGO2 [CHAT] Support the idea to improve consenting. Although getting consent is an issue, the problem is also a lack of capacity. Our county has 1.5FTE officers developing greenways for the whole county. There are plenty of opportunities for new routes even in rural areas but councils need the staff and the funding.

ACAD: [CHAT] the other problem with infrastructure is the purchasing of land. Many landowners in rural areas are not willing to sell land or allow paths over their land. A working I did a number of years ago put land purchasing for bike/paths beside an A trunk road at about £100k for 100yards. It's a significant problem as landownership is complicated.

CONS: Cycle campaigners have said that E-bikes should be an option everywhere in the UK.

ACAD: [CHAT] there are E-bike projects happening in the Highlands, one through the EU project INCLUSION⁸ for example.

CONS: [CHAT] Loads of E-bike projects exist already, , many rural⁹ ... but it needs scale and national support (legitimacy + grants) to make E-bike availability a norm otherwise we keep on doing (more and more) pilot projects. Infrastructure is important, but just making E-bikes widely available will get loads of take-up anyway in the short-medium term. We need PAYG E-bike pods in settlements + E-bike loans + try-before-you-buy

⁷ <http://www.euxtoncouncil.org.uk/about-euxton-parish-council.php>

⁸ https://www.rupprecht-consult.eu/uploads/tx_rupprecht/INC_D4.4_PL-Action-Plan_Cairngorm.pdf

⁹ <https://como.org.uk/shared-mobility/shared-bikes/shared-mobility-shared-bikes-projects/>

programmes via shops + visitor E-bike rental via accommodation + grants for E-bike. (For example see second round of E-bike grants in Guernsey¹⁰)

ACAD: [CHAT] As the long-term owner of two e-bikes, which I love, I would rarely use them for my 14.5 mile each way commute (North London to Uni Herts). Apart from rain and other traffic (both disincentives), it would add an hour to my daily commute. I try to use my Twizy (2-seat electric microcar) which is rainproof, still very low carbon, and not much slower than regular car. So I agree that a migration to diverse, probably smaller EVs (as well as my beloved e-bikes) would really bring great benefits.

CONS: [chat] evidence suggests 50% of E-bike trips replace car trips

NGO: [chat] Q beyond obvious need for new rural cycleways, what should forthcoming Cycling & Walking Investment Strategy 2 say to enable e-bike surge? In terms of its vision, Performance Spec (KPI framework) and Investment Plan

NGO: [CHAT] Did the CREDS study model potential to shift to E-bike+Rail or just e-bike trips? Obvs would significantly improve rail station catchment areas & offer fast trips.

GOV: [CHAT] No it didn't

REGG: [CHAT2] I was going shopping for an e-bike but my plans were scuppered by the pandemic. We need inter-town safe routes though.

6.4 Shared Car

MOB: We often demonise the car. It has a useful role if we can transfer ownership to usership and shared mobility. We too easily forget the problems of bad weather for cycling and walking. We should turn the argument back to car rental and car share.

CC: A travel demand report from 2019¹¹ showed a huge potential for CO₂ and road space if the average vehicle occupancy increased.

ACAD: DfT analysis said an increase from 1.5 to 1.7 average vehicle occupancy might reduce traffic growth by 5% from current trend. If occupancy falls to 1.3 this results in a 55% increase in road traffic growth. This is a very dramatic scale of response for a small change in average occupancy. So increasing average vehicle occupancy is very important for reducing infrastructure costs as well as carbon emissions.

ACAD: Can't see any way to reduce vehicle miles without increasing vehicle occupancy substantially. This could be in the form of DRT or localised informal ride-share coordinated through mobile phone apps. There is a huge prize to be had here and a massive risk, facing 12 months of no shared transport due to Covid-19. Some headline messaging is quite damaging right now and it will possibly affect people's behaviour in the long term.

ACAD2[CHAT] But will we go fast enough - Liftshare, Enterprise etc.. pretty much have to DIY. What if that is not fast enough?

ACAD: [CHAT] Re shared cars in smaller towns - I can't imagine the market taking this on: while people still have their own cars there won't be enough demand, yet people won't get rid of their car if there isn't a reliable alternative?

ACAD2 [CHAT] I agree on the market for car clubs (being limited in small towns). But there are lots of hybrid models of company/peer to peer or flexible ownership access which are much more scalable.

REGG[CHAT2] Another market could well be the older / adult children still living at home, homes in rural areas with 3-4 cars on the drive are not rare.

¹⁰ <https://gov.gg/article/176556/Second-electric-bike-subsidy-announced-for-e-cargo-bikes-and-e-trikes?fbclid=IwAR1GJB1hh2i7bdQGVLP5ueu72WlWKUpZ4axuTrsuX7cUM9YCWdYjlqBusxY>

¹¹ <https://www.creds.ac.uk/wp-content/uploads/CREDS-Shared-mobility-comm-report-WEB.pdf>

INNOV: There is an interesting point about capacity for growth. If only 10% of pre-covid19 car drivers were to shift to bus or train there would be insufficient capacity. But those 10% of car-drivers could easily be absorbed by the spare seats in the national car fleet. Passenger seats in cars represent enormous under-used capacity. There is much good work going on at Enterprise and Liftshare on this. Even under social distancing there is capacity to be used. Commercial operations can enable asset sharing to let people share the costs of running the car, even if they are not travelling together.

ACAD: Shared mobility in the private sector is good but we need to scale this up with state intervention and subsidy to make this work at scale.

INNOV [CHAT2] Heard of a really interesting case study of employers working with their staff to encourage car sharing: Jaguar Land Rover saving significant amount of car parking space allowing them to expand their facilities. And interestingly they report two weddings due to people getting to know each other though sharing their cars! And that second car that mostly sits on the driveway is likely to get used for journeys that could easily have been done on bike or bus just because the car is there... so the benefit of removing it could be bigger than thought

ACAD: Microcars are also suitable for commutes similar to or longer than those recommended for E-bikes and are faster and more comfortable.

ACAD: University of Hertfordshire (UoH) has the longest running e-car club¹² on any university campus. Their second campus is car parking free. The car club has over 300 members comprising staff and students. This is despite UoH at Hatfield is not in a good location for public transport, right next to the A1M.

6.5 Demand Responsive Transport (DRT)

ACAD: DRT could be a very important alternative to some car use and provide transport for people with no other options right now. There is latent unmet demand.

ACAD: We are currently at an interesting time to experiment with DRT rather than run empty buses. DRT could be used to make existing routes more appropriate. So adapt vehicles now. Surely we can use Covid-19 to drive innovation.

ACAD: SMU UoH has showed that people do very little rigorous analysis of the "use cases" for DRT. There have been some experiments in DRT during lockdown and Smart Transport [??check] looked at innovation outside cities. Pilots include

- SPARELABS¹³ an international technology company using Micromobility. DRT projects in Mallorca and Dallas with Covid-19 track and trace built in.¹⁴
- ZEELO is a bespoke bus commuter service which has added a track and trace option¹⁵.
- SEVENOAKS In response to Covid-19 lockdown the incumbent bus operator has repurposed their fleet to operate as DRT with funding from Kent CC¹⁶. This has allowed the elderly to access shops who were not able to do so before.

There is a need to gather and research these and similar case studies in more depth.

REGG: People will not give up their cars unless they see alternatives in their local areas, yet in market towns the lower financial viability means there will be no local examples if left to the market.

¹² <https://ecarclub.co.uk/locations/hertfordshire/university-hertfordshire-history/>

¹³ <https://sparelabs.com/en/>

¹⁴ <https://blog.sparelabs.com/spare-emt-palma-de-mallorca-collaborate-on-covid-19-transit-response/>

¹⁵ <https://zeelo.co/key-worker-transport>

¹⁶ <http://www.go-coach.co.uk/HospitalServices>

REGG: Midlands Connect view is that there is a place for shared transport but it is up to individual local authorities to decide how to operate this. There needs to be a commercial case for any operators to serve a hub - whether a public transport, DRT or shared mobility operator.

CONS: Northamptonshire's experience is that most families have two cars, so it is important to ask how to get people to use them less. DRT which allows anyone to go anywhere is very difficult to deliver as a commercial operation, so it is easier to make one end of the journey fixed, for example serve the core corridors into the nearest town with semi-flexible routes. Shared taxis might let people drop the second car which is only used to commute and build on that rather than aim for a big bang solution.

CONS: [CHAT2] I should've said that 6 months in, we managed to get to 3.8 passengers per vehicle on average just before lockdown. One another note on our model (if you'll forgive me) - is our approach involves far lower costs than most 'vanilla DRT' in that we're co-opting the spare capacity in existing local taxi fleets and so can launch at scale without huge capital investment.

CC: Is it possible that there is no viable commercial model for DRT and it will require social enterprise is at best.

ACAD: Yes but the question shouldn't be is there a profitable model where rural bus has failed but can we increase access to essential services with less carbon. We also need to use a 'co-benefits' narrative, for example the benefits to be gained by pooling transport budgets across public services (Total Transport) and thereby reach critical mass for creative solutions. Zeelo is using spare coach capacity to launch new services.

ACAD: [CHAT] I would like to see a huge increase in trialling of DRT - potentially linked to health tracking apps - running big empty buses wont teach us what we might be able to learn about how travel patterns can adapt.

ACAD: We can't simple throw DRT at projects hoping some will stick.

CONS: A project supported by the Foundation for Integrated Transport looked at integration of mixed modes in a deep rural community. This analysed travel needs, ways to meet the needs and how to fund them. It was very ambitious in concept but for a settlement of 2000 people with a remote hinterland it was more manageable to address the issues.

6.6 Mobility/Accessibility Hubs and Town Centres

ACAD: Working from home is the same in terms of wellbeing and productivity, except there is some concern about the unintended consequences of a two tier workforce - those who travel to work and those, typically in higher paid occupations, who work from home. There is also concern that an increase in home working will destroy town centres because there is less reason to visit them if offices become a thing of the past. Mobility hubs may be a good intermediate solution.

ACAD: Accessibility hubs in village halls could revive a settlement. People could walk to work in a small rural hub for good Wi-Fi, to collect deliveries.

REGG: Also we should think about bringing services to people to avoid the need to travel, for certain health services for example.

REGG: The last mile in rural area can be up to 15 miles and people in rural locations have to travel twice as far to access services compared to cities. Hubs can help address both these issues. There can be varied specialist hubs in adjacent villages. By aggregating journeys to a hub, DRT can become viable.

INNOV: Freight aggregation is also possible at mobility hubs. And we can envisage Amazon delivery drivers carrying people or a local DRT carrying parcels to a hub.

ACAD: [CHAT] Take your point, but your figures are based on pure modal shift and do not factor in potential destination shifting (including working from home) and putting services back in local areas.

CC: Thinking of their local LEPs and whether they would fund rural mobility hubs there would be a difference. One is already on the case on carbon reduction and the other is fully in 'business as usual'. The County has

declared a climate emergency and want to achieve Net Zero across the board not just in their own vehicle fleet. They are now looking at scoping the problem to see if they can make a business case the LEPS might support. There HAS to be a business case for LEP funding.

ACAD: But what goes into a business case? Classic cost benefit ratio or a transport appraisal including carbon and social benefits as well as local jobs?

CC: Need to demonstrate the benefits including carbon benefits and the Central Government needs to provide something on co-benefits which LEPs would recognise.

INNOV: [CHAT2] We need some case studies to fully evaluate the impacts of a hub - in terms of welfare but also job creation, the local high street (the cafe and convenience store next door) and carbon. Those case studies could then be put in front of LEPs and other decision makers.

REGG: There are major concerns for the medium sized town centres (Northampton, Bedford, Luton, Kettering) where the Covid-19 effect has hit trade very badly, especially if there is a permanent loss in bus travel into the centres from their hinterlands.

REGG: We face a future with a two tier society with some people who can and some who can't work from home. Even where some jobs can be done remotely, not everyone has a suitable space to work in. So there may be demand to rent individual workspaces for employees working remotely. But we may also see the end of open plan offices so town centres could lose essential trade from staff who work there. The economic impacts could be very large.

ACAD: Accessibility hubs would help combine flexible workplaces and a range of other services. This could help address the loss of large open plan offices in town centres?

REGG: [CHAT] There are a lot of jobs that can't be carried out at home - manufacturing, logistics etc. Also town centres are already in decline. If people stop coming into the centre to work then this will have a further impact on the local economy.

ACAD: [CHAT] Important point about town centres. But I don't think we can give up on them.

6.7 Leisure Travel

CONS: Leisure travel is a big opportunity for carbon savings as 30% of the distance driven by car is just 3% of journeys. Should the approach be to make visitors comfortable to give up the large car which they need infrequently for long distance holiday trips and use a hire car OR dissuade them from travelling by car to holiday destinations by offering them a wide range of alternative transport options when they arrive?

REGG: [CHAT2] This is one of the reasons my husband doesn't want a fully electric car - we drive to visit my family in the Netherlands a few times a year.

CONS: [CHAT] People at leisure are far more biddable. Lake District LSTF shifted 14% local trips from car (lost 3 years later). Leisure travel when framed as part of a visitor experience is a different set of opportunities compared to travel behaviour change.

CONS: Leisure travel is a big source of carbon emissions but there are problems addressing it. For example National Express Coach has stopped serving the Lake District due to lack of demand. 92% of visitors to the Lake District arrive by car and of these only 7% could be met by spare rail capacity (based on data from 7-10 years ago). So there is a public transport capacity problem. The inconvenient truth is that leisure travel is a major source of emissions but we have no strategy for addressing it. The lesson from the LSTF project in the Lake District was that it is relatively easy to change visitor travel behaviour once they are at the destination, but these savings in emissions are dwarfed by the carbon used in travelling there and back. Ride share might be one solution.

CONS: The Centre Parks model is very successful and is worth bearing in mind in relation to travel for leisure. People who would normally not use active modes happily pay good money to leave their car once they have arrived and use only walking and cycling.

NGO: [CHAT] Leisure is 40% of all trip kms. in context commuting is only 20% of trip kms from 2018 DfT Stats

NGO2: [CHAT] UK is 5th biggest international destination by visitor spend. But 62% of that spend stays in London as people scared to drive on left. Huge opportunity to level up through public transport investment

ACAD: [CHAT] 96% per cent travel to the Cairngorms National Park by car so maybe some of Richard's data/tables may reflect tourism trends. Under Covid-19 in the Cairngorms we are seeing visitors speculating they will be using pathways and cycling more due to social distancing. They expect to arrive by car but to use other means when they are here, since that is what they are doing at home. That then brings with it the problem of buses not taking bikes.

INNOV: [CHAT] IoW has an excellent and heavily utilised rural bus service!

ACAD: [CHAT] There's no reason why loads of counties couldn't have a bus service as good as Isle of Wight's. But they don't seem to.

NGO: [CHAT] Interesting because we've been approached by a resident of the Isle of Wight wanting campaign help re: a new junction in Newport causing community severance btw the hospital, residential area, town centre, college - with poor footway provision (1m wide) obstructed by posts. He implied the Councillors were car dinosaurs.

CONS: [CHAT] Re-profiling national parks as "Active travel experience zones" (needs some branding! c.f. Alpine Pearls) then we start to shift norms. 84% visitors to the Lake District have been before; 10% have been more than 25 times (I think) before. Lots of potential for planting propositions.

ACAD: [CHAT] Assuming one wants to go to the Lake District (and why wouldn't you?), then as a family of four (friendly assumption), you could do it in an EV or hybrid EV for around 15-30g CO2 per person km. This is probably a lot less than any fossil-fuelled public transport (which, we hear, do not have much extra capacity), so is it really such a bad option, unless congestion, as opposed to CO2, is the issue? I agree very much that low-C (e.g., e-bike) options should be available when we get there.

CONS: [CHAT] The opportunity now is to extract free car access to high profile locations in national parks - Langdale, Edale etc - making them effectively car free and into "active travel exploring zones" (back to branding...) People are currently attuned to (and demanding?) calm roads, and the marker it would place would be *really* useful. The problem is that the decision makers at the moment are over-stretched Transport Authorities responding to priorities for access to work (etc).

ACAD: [CHAT2] How many staff do Lake District and Cumbria have on travel. About 1??? Lets also plan to upscale capacity in these places.

ACAD: [CHAT] clarification: I can confirm that the figures in Greg's paper for leisure include shopping (data from the NTS). But the point is that the longer distance trips for leisure generally do not include shopping and over 2/3 of trips above 50 miles are for leisure

ACAD: [CHAT] Long distance coaches - need talk about these too ..

CONS: [CHAT] It's also the lack of safe strategic cycle infrastructure into the national parks from outside. People drive their bikes into peak district national park because too hard to cycle from surrounding metro areas. Lack of a joined up network between authorities.

GOV/ACAD: Under Covid-19 lockdown people have discovered nice places where they live to walk and cycle. This is a short term opportunity for locking in behaviour change. People don't need to drive to walk the dog. Even in badly designed new housing developments people have probably been discovering ways to find walking routes.

ACAD: Post Covid-19 whether due to ongoing problems caused by the virus, to achieve net zero we must reduce our international travel. Domestic leisure travel will increase accordingly. We don't include this in our thinking. Leisure is very highly car dependent so it is a very important subject for decarbonisation.

ACAD: There is a difficult question about who is accountable for emissions from a leisure trip. Is it the tourist destination's responsibility to influence the emissions from visitors travelling to their location as well as within it? important to look at who is responsible for the carbon emissions rather than where they take place? If LAs were to have carbon budget targets then per capita CO2 levels will be focussed on properly. The solutions for reducing emissions from leisure trips lie at both the origin and destination of the trips.

ACAD: wherever you live you should buy the lowest carbon emitting car and use your local area more without the car. AND the "honeypot" attractors should do as much as they can to reduce emissions from transport to and at the destinations.

ACAD: The Isle of Wight and Cornwall are innovating for visitors and residents to make it cheaper to travel car free. Public Transport Network for Cornwall¹⁷ is very interesting project.

NGO: Q Was it intentional that the decarbonisation strategy only covered how to change daily trips away from car but not less frequent trips? There was no mention of leisure travel at all.

A: 40% includes shopping and leisure trips. No it was not deliberate. But DfT has been impressed by the conversation on the importance of leisure travel and the relevance to changing travel behaviours. There is a transformation currently underway in how things are being decided and funded.

ACAD: Jillian Anable said that from her CREDS study, 3% of car trips account for 30% of mileage for journeys over 50 miles. This links to the pattern of people buying big cars to allow for comfort and luggage on infrequent but long family leisure trips. It is realistic to downsize the national private car fleet and shift it towards BEV. So making National Parks car free could make a big difference to this behaviour. This is an example where signalling a wild policy ask could have a very big impact. The Centre Parks model proves that people will opt for being car free once at the leisure destination.

NGO: Also National Parks are as badly blighted by traffic as many cities. They are beauty spots crammed with traffic. People would appreciate a noticeable improvement in enjoyment if these places were car free. There is a good sociocultural hook to 'make wild places wild again'.

ACAD: DfT looked at banning visitor cars in National Parks as part of the Glover review of Designated Landscapes¹⁸ and there is a pilot proposal to give the Lake District traffic powers so car free could be trialled in a location.

ACAD: But there are not many staff working for National Parks, so this would need funding. Cumbria County Council has no capacity to do anything on transport.

ACAD: There is a precedent of a grant making trust funding someone to work up the Lake District proposal to protect the core principal of protecting a designated landscape. There have been proposals in the past but Covid-19 means National Parks are currently having to manage traffic arriving and turning them away. Ditto the whole of Wales!

6.8 Carbon Accounting

ACAD: Carbon accounting, as defined by the UN, is by territory, so it is where the emissions arises that matters. So when a consumer buys a car the carbon from the vehicle's manufacture is allocated to the

¹⁷ <https://www.cornwall.gov.uk/transport-and-streets/public-transport/ongoing-developments/one-network/> and <https://cornishstuff.com/2020/01/07/new-subsidised-eco-bus-routes/>

¹⁸ <https://www.gov.uk/government/publications/designated-landscapes-national-parks-and-aonbs-2018-review>

territory where the emissions were created. This explains why the carbon attributed to an area are based on what is emitted there (including vehicles passing through) rather than the emissions of the residents.

ACAD2: [CHAT] It's a wider issue, but just to record the point that embedded carbon is absolutely vital to the assessment of all carbon issues - both for vehicles (especially the electric vehicle calculation) and for infrastructure. I don't think the suggestion is right that we don't need to worry about it because the carbon is accounted for 'elsewhere'. It should be accounted for in a way that allows transport initiatives and policies to influence it.

NGO: [CHAT] And beyond embodied carbon, consider land of transport and the development it enables. We need lots of land for bioenergy & carbon sequestration to have a chance of meeting net zero.

ACAD: [CHAT] Agree, but of course worth pointing out that a lot of UK's apparent success in carbon reduction is embedded carbon in consumer goods being accounted for offshore.

CC: [repeated from planning section] National carbon budgets by sector or by region are helpful. But we are left at county level trying to tackle the planning problem from the wrong end of the process.

6.9 Seize the Moment, Be Bold

ACAD: Covid-19 Lockdown showed that people liked the lack of traffic in cities - the better air quality and the lack of noise and safer streets for walking and cycling.

INNOV: We know that people who cycle have better wellbeing but people need to try it to experience it. Maybe some people have now had a taste of cycling and will be open to more changes than before.

ACAD: There is a fundamental issue about the timing and pace of change. We have seen walking and cycling initiatives delivered at incredible speed, over days, which have been unsuccessfully tried in the past. These changes will spill over into rural areas, not just urban settings. This is curiously out of step with the scale and pace of the road programme and planning based on national long term projections for travel which all presume that we are looking at long term effects of slow processes (10 years or more).

ACAD: Under Covid-19 budgets and policy attention have been reallocated very swiftly so we must stop thinking about long term trajectories or we will miss opportunities.

ACAD: It is impossible to understate the urgency - huge changes have been happening at the scale of weeks. Long term projections are not relevant.

ACAD: There is a huge risk that fear of public transport due to Covid-19 will result in a major shift to car dependency and the justification of car ownership and use. We are at a critical moment in the virus recovery where there is an opportunity to lock in working from home using online tools. The commute typically accounts for 20% of trip km and travel for business 9%. So approximately 33% of all distance is accounted for by work. People working from home for 2 days a week would lead to them using more services locally to their homes and re-stimulate local economies. This in turn would reduce the need to travel. Whereas the new road capacity planned in the DfT road budget could lead to a negative rebound after the good changes delivered by the virus. We need to lock in the changes in working from home. This is a critical moment in time, demanding that decisions are made in weeks not years.

ACAD: It's likely that the coming recession will reduce the number of trips on the highway network and there will be a long term increase in home working, so resulting in an overall drop in traffic. But some people will stop using public transport and shift to private car as a result of Covid-19 and they may not return for decades unless we address the messaging now.

CONS: Agrees strongly with point about losing public transport as a mode as a result of the virus. We all agree public transport is important for the future and we need ridership to increase but there is lots of messaging going in the wrong direction at the moment. It will take a lot of work to overcome this.

CONS: Welcomes the changes at DfT but needs to think about messaging for public transport post Covid-19 to overcome the damage caused by social distancing. There had been a specific instruction from government to use your car and not public transport. DfT needs a very clear strategy to reverse this messaging and shift attitudes towards the alternatives to the car and improve public transport so that it is a mainstay of future mobility.

DfT: Most resources are currently focussed on restarting the economy and get capacity back up to 100%. They have very small number of people at DfT looking at public messaging. Commissioned research from social and behavioural research teams on the six main themes in the decarbonisation paper but this is focussed on the future. DfT is not yet thinking about getting transport behaviours back to normal. Point taken though.

REGG: [CHAT] It is going to be even more difficult to encourage people to use public transport post Covid which will have an impact on investment.

GOV: [CHAT] Technology, apps providing real time capacity / congestion on public transport could have a huge role. We are looking to use that to guide people onto bikes and to walk.

NGO: We should look at what is NOT being done because of Covid-19. A lot of measures to address air quality by the metropolitan mayors has been delayed. This threatens 1 to 2 years of political capital in the mayoralities. This will leave a short window to support local AQ action at scale to keep up the pace of change towards implementing Clean Air Zones. This will need funding - and the roads budget should be reallocated. There is an urgent need to recalibrate funding to ensure that the next two years will see delivery on key projects despite Covid-19.

ACAD: So is the suggestion of road user charging and free bus services unrealistic? If these tools are unrealistic, how else will we get a sense of an urgent and actionable plan that can address the scale of the problem?

NGO Agrees with above statement.

CONS: Need to go further and faster. Hopes that if we exploit the decarbonisation plan from DfT and other government departments we can get a strategy for 2020 and build on the recent changes in air quality, cycling and walking. The benefit of Covid-19 might be a good strategy to prevent reversion to behaviour pre-March 2020. If we re-open with a better situation it will still need six months of rapid change by government to stop reversion to previous behaviour patterns. Government must signal that it wants the change to be maintained and push the local authorities to see that it happens.

CONS: Must exploit people's behaviour change. Everyone has rapidly changed their behaviour, yet previously we were told it takes a long time to change. This mantra has been disproven. CIHT and TPS are keen to do work in the next six months to set out a plan for how to work with communities to adopt permanent changes.

CONS: We need to restrain car use, by speed controls not just by pricing and we need to do so quickly. We should look at introducing more 20mph roads and access only routes. Centreparks business model has worked. We need to create places with a Centreparks feel. In rural areas this can be achieved in creative and constructive ways. Under Covid-19 people in Cumbria are cycling who have never done so before because the roads are traffic free. So we should be talking now about closing high profile areas to car visitors and creating networks of Green lanes that provide no through access. This would be very appealing for people. Use the current Covid-19 mood and moment to pull back fast on car use in rural areas.

CONS: [CHAT] Identify the smaller roads and implement "Sauf riverains" - 20mph + access only (for a start). These have seen huge numbers of local people using them for cycling, walking, running, with pushchairs, in wheelchairs with implicit demand (?) for this to continue... but TAs are currently focussed on covid recovery priorities re access to work & denser areas.

The National Networks Policy Statement needs to change to enable an express consenting process for cycleways in rural areas to fast track infrastructure to enable wider take up of active travel and E-bikes.

ACAD: Check HE press release 21/5¹⁹ on money for continuous cycle routes in Somerset and Weston-Super-Mare. If they can do this then there must be the opportunity for HE to deliver more.

NGO: We need to go faster and further than at any point in history. Beware of our pragmatic default incrementalism. Lisa's paper for Friends of the Earth on traffic miles²⁰ inspired me to call for cities to ban private cars altogether and the discourse has shifted as a result. . Bold visions and demanding dramatic changes are helpful. We need to broaden the scope for what is on the table. This is an explicit theory of change. Having people who take the role contributing ideas to the debate which are considered 'wild cards' compared to the normal acceptable discourse are useful. They can open up the field for more moderate and reasonable people to step into. For example, asking for National Parks to ban all non-residents cars and propose alternative methods would unleash an outcry but we need to have the debate and fight the default incrementalist approach.

ACAD [CHAT2] Agree with need for bold measures - climate emergencies mean 6, 8, 10 +% reduction per year, every year. One of the things which the LGA project is showing is that we are still operating on what we think we can do not what needs to be done. I understand why that is.

NGO: [CHAT] how do we lock in lower motor traffic levels on rural roads - not just urban ones? Default 40mph on minor rural roads a start?

REGG: [CHAT2] Telford Council has put measures in place in Ironbridge under the temporary measures with a view of making them permanent if the pilot goes well. Things like reducing on street parking and restricting vehicular access to the high street. Can't remember the detail but they're making space for pedestrians due to social distancing but hopefully the measures will stick?

CONS: The situation is such that we need to change so fast we have to take risks. We cannot be risk averse. Very concerned with the degree of certainty required for permission for on a 40 year project (Essex Garden village). They tried but couldn't demonstrate that they could succeed in delivering a car free settlement.

ACAD: it is hopeless to compare every new proposal to the 'business as usual' case as this is based on a reality pre-Covid-19. The post lockdown world will be different and we have a 'new normal'. We need a leap of faith.

ACAD: If market towns overnight became car free with DRT and free buses we now know that people like traffic free streets. But ... people will migrate/retreat back to the norm. This is a very powerful trend so we need to get ahead of the reversion.

ACAD: Appraisal needs review and risk taking is important. The biggest risk is in fact to do nothing and exceed safe temperature rises. There is no bigger risk than this.

CC: Agree with point about bold action on planning. There is an appetite for changes for new developments. We need a clear cross-government communication signalling that they all want a new approach and LAs need to know that it is OK to fail while seeking to innovate.

The best work to reference is the behavioural change projects which had revenue funding to enable personalised travel planning. Government knows the importance of this type of expenditure for behavioural change. Also from Covid-19 the government knows the importance of spending money on messaging, media and communications.

ACAD: [CHAT] The untackled question - what status can the 'business as usual' forecast have now? We have to reduce car use.

¹⁹ <https://www.gov.uk/government/news/clocking-up-cycle-miles-by-pumping-funding-into-coastal-scheme>

²⁰ <https://www.transportforqualityoflife.com/u/files/1%20More%20than%20electric%20cars%20briefing.pdf>

CONS: [CHAT] Time to talk about traffic free national parks²¹.

INNOV: [CHAT2] Car use was altogether banned (on Sundays) in Germany during the oil price shocks. How much further do we need to go in the climate crisis before we can bring in bold policies? Around 45% of all car trips are made within urban areas and are shorter than 5 miles - would it really hurt to ban those?

ACAD: [CHAT2] Interesting how lots of staff have been repurposed to 'front line' roles to deal with Covid. Perhaps we need to do this to sort out the climate emergency?

5.10 Reallocate the Road Building Budget

NGO: Post Covid-19 there is a big opportunity but also a great threat as movement restrictions are eased. Two issues:

- Urgent need to support local provision for Public Transport in rural and urban areas. This includes community transport and DRT. Public transport use has fallen to such a low level that it is a big priority to restore ridership. Central government needs to fund this.
- Central Government needs to reallocate the £28.8bn package for new roads. If there is another budget in 2020/21 it is essential to factor in the huge impact that such a major investment in new roads will have on travel patterns. This will influence local authority decision making and planning. There is no hope of decarbonising transport with the £28.8bn of new road building.

CONS: [CHAT] The road building (not maintenance) budget for NW England would leave change if re-directed to pay for free local bus travel.

NGO [CHAT] Spend the roads budget on new broadband!

NGO2[CHAT] Agree

NGO: [CHAT] Highways England maintenance budget due to grow to cope with the 70%+ increase in traffic expected by 2050!

REGG: We haven't talked about how to ensure that we have the investment in infrastructure for electric vehicles or other types of fuel eg hydrogen especially for freight.

6.11 Local Authority Constraints

CONS: LAs need funds to make changes and they need to be compelled to act. They don't have the powers or the reason to act at present.

ACAD: There is an argument for a new funding settlement for non-urban LAs to take advantage of major opportunities for modal shift, with corresponding duties as well. The Transforming Cities fund is good but there is nothing for other areas.

CONS: LAs need duties, powers and funding to reduce carbon and the highly cautious culture in local government (due to years of cuts and financial precarity) is a problem.

ACAD: In a recent study with Local Authorities, two thirds had declared a climate emergency and of these 40% had a carbon reduction target and 20% of those declared have a target on all transport emissions in their area. So the scale of understanding is way off what we need, which is very worrying. The UTG has done a great deal of carbon analysis and set carbon targets but there has been nothing similar outside cities. So we will either need to rely on cities to deliver on behalf of everywhere else or we will get nowhere.

²¹ <https://www.cnp.org.uk/blog/it-time-start-talking-about-traffic-free-national-parks-again>

CC: [CHAT] Interesting that ClientEarth tried to put planning authorities on notice, but I don't think that campaign has been as successful as their AQ action. The big gap at the moment appears to be around having national carbon budgets in place to measure against.

6.12 Programmes not Pilots

ACAD: We need something beyond just more rural pilots that go nowhere and never get mainstreamed. We need a programme of hubs in different types of communities to assess the benefits of tackling transport and carbon. This is well worth central government exploring.

ACAD: Agree that we need no more useless pilots. We need attempts at some big scale deployment. If we are timid now this will lose us 5 years.

ACAD: The DfT is interested in finding how to get the 'biggest bang for the buck' and identifying quick wins. Need to look at both.

ACAD: This is a very hard challenge. There is a choice of things to do. We already know that LAs will have to put a funding bid in to government. We need to scale the solutions and work out what is involved in this.

INNOV: We need a new version of the LSTF because this really worked. The Transport for Quality of Life report by Lynn Sloman²² on this made clear that there is a need for revenue and capital funding together to get the full benefits. Reinstating the LSTF would allow projects to come forward and would be a good focus for campaigners. It was very cheap in the scheme of things yet has really made a lasting difference.

INNOV: [CHAT2] The person 'inventing' the transforming cities fund used to say that he took the LSTF and its evaluation as his inspiration.

REGG:[CHAT] Could use the Transport Knowledge Hub to disseminate best practice.

6.13 Behaviour and Technology

CONS: Sceptical about behaviour change alone - need technology.

CONS [CHAT]: Consider the travel behaviour change resulting from the Covid-response measures. (Not to say slightly depressed!) On the one hand, Surface Transport demand change is the biggest single contributor to global emissions reductions: sounds good! On the other hand, the drastic changes we've seen across all sectors (not just transport) have collectively led to a maximum daily reduction in global carbon emissions of 'only' 17% compared to 2019 (though up to 30% or so for some individual countries, at different points in time). I don't mean to sound pessimistic or imply that transport shouldn't do all it can to help us reach net zero, but it really does show the limits of personal behaviour change as a means of achieving that goal, given that the level of change in response to Covid has been far greater than we could hope (or maybe even want) to mobilise in support of decarbonisation. It makes me think that we do need to keep technology change at the centre of our thinking as well as worthwhile changes in behaviour

CONS: [CHAT] Technology changes are essential but they can't happen quickly enough to reduce carbon emissions. The Tyndall carbon budgets show that most local authorities will use their budgets up within 7-8 years at pre-covid rates. Behaviour change can be encouraged quickly and cheaply with the right incentives and the right infrastructure in place.

ACAD: [CHAT] Technology adoption involves behaviour change! Policy change is also behaviour change. It is ALL behaviour change! Can't separate these concepts²³.

ACAD: [CHAT] Electric vehicles - large embedded emissions including all the infrastructure requirements. Takes too long. Sets up car dependent lifestyles and dynamic effects of this is more energy and resource use overall.

NGO2 AND INNOV: [CHAT] AGREE!

²² <https://www.gov.uk/government/collections/local-sustainable-transport-fund>

²³ <https://business.leeds.ac.uk/research-stc/doc/socio-technical-systems-theory>

CONS: [CHAT] Also agree with the point above about needing both behaviour change and tech change - I think both are inevitably needed.

NGO2: [CHAT] Even if we double public transport, walking and cycling, cars will still account for 60% of trip kms - even more in rural areas.

ACAD: [CHAT] Take your point, but your figures are based on pure modal shift and do not factor in potential destination shifting (including working from home) and putting services back in local areas

NGO: [CHAT] Shouldn't we break behaviour change down into modal shift, destination shift and more fundamental shift in service provision (e.g. working from home or local hub)?

REGG: [CHAT2] It's about bringing services into local communities as well.

CONS: [CHAT] Yes - surely change on the scale currently being experienced must be the upper limit on what's conceivable - across all those dimensions NGO mentions - but there's still a lump of emissions needing removing.

ACAD: [CHAT] important point about destination shifting. I agree - this changes the journey length distribution and also acknowledge the interaction of policy effects in different areas

REGG: [CHAT] People to services vs services to people is the key question.

ACAD: It's important to look at the distribution of trip lengths. There is a big opportunity to get people to change the 40% of short journeys. These may be modal shift quick wins in counties. It would be better if there were good local services in rural areas but it will cost to reinstate these. It's easier to substitute the short leisure trips with walking and cycling.

INNOV: New DfT project on rural transport AsSeTS to assess the feasibility of new mobility services in rural areas with a data driven approach. Look for suppressed demand. Previous roundtable highlighted the suppressed demand. Need to reveal the real demand from mobile phone data and look to match services. Can the data sell a profitable services to a commercial public transport operator or to a less subsidised services or provide more benefit than the services currently available? The project is focussing on needs rather than solutions, so particularly keen to involve LAs, LEPS etc.

GOV: [CHAT] Assessing Sustainable Transport Solutions for Rural mobility (AsSeTS for Rural Mobility) The project will identify ways to improve accessibility and transport solutions in rural environments by improving the knowledge base around demand for new mobility services. The main aim of the project is to look at removing barriers which prevent New Mobility Services (NMS) being commercially viable in rural areas by:

- Using data-driven approaches to understand typical daily travel patterns; and
- Identifying new mobility services which can be deployed commercially, and those that will be likely to require on-going financial support, in order to provide socially necessary services.

This is a CPC/DfT project that has just kicked off in April and will continue over the coming year.

6.14 Sticks and Carrots or Nudges

NGO: Reform of 1st year VED in order to differentiate between high emission cars and battery electric is a very powerful tool to shift ownership patterns. HMT's proposals are sound but they could be even more aggressive.²⁴

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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/871749/VED_final.pdf

MOB: Mobility credits would be useful, so people can give up an older vehicle and instead of money for a new cleaner vehicle, be rewarded with credits to use in car clubs or car rental or public transport. This would bring more walking and cycling and stop people reverting to car ownership.

NGO: Scrappage schemes must not just be for old cars but also for trading in newer large ICE cars for e-bikes, e-vehicles and public transport.

NGO: [CHAT] There is a lot of discussion about scrappage schemes again as part of green recovery, this should be flexible and not only support BEVs but also E-bikes and cycles or shared vehicles rather than scrapping an old ICE for a bigger, newer one.

MOB: We need longer term behaviour change and nudge towards the desired end result.

MOB [CHAT] Rather than focus on the 'right' mode should we not look at where there are quick wins influencing behaviour change - the profile of those wanting to embrace E-bikes will be different to EVs etc. The car is not always the demon - it can be a useful enabler to supporting change

ACAD: [CHAT] Lisa's point about responsibility and accountability – vital

CONS: [CHAT] Behaviour change and technology, but also car restraint (as "access only", car-free areas etc (c.f. town centre pedestrianisation)). This can be framed positively but it needs to be on the list and clearly articulated.

NGO: [CHAT] Agreed with Lisa. People can't see the virus but still comply. The same could be done for the climate with the right policy, legislation, messaging and funding in place.

REGG: [CHAT] One of the things that the subnational transport bodies are keen to understand, as we become statutory, is who has the responsibility to do what.

INNOV: Case study from Germany in 1970s post oil crisis, all Sunday car trips were banned. So students would cycle on motorway roundabouts for entertainment. How much more of a crisis do we need to take some similar action? We need to get beyond token behaviours. 45% of all car journeys are less than 5 miles in urban areas, so we should be asking if these are necessary at all.

ACAD: Notable that we have not been discussing the end users needs at all. We can't simply tell people they will use their cars less there needs to be a narrative from government to explain to them how this will happen and how they will be helped. Talking to the end-user can replace the need for massive legislation.

CONS: Agree about involving the end user, for example working on project with TPS, CIHT and RCA to work with three communities to address their questions, gather data and find out what people need order to change and how to deliver this.

ACAD: Disagrees it's either end-user or legislation - perhaps need both.

CONS: [CHAT] This reinforces the need to link in the planning system and the location of new development: this should include services and not be just a "housing estate".

INNOV: [CHAT] and have great public transport on day one so that people can move in who don't own a car ... once people move in who have a car you cannot retrofit a Public Transport service...

6.15 Appraisal

REGG: There is an investment issue linked to appraisal. It is easy to demonstrate a high CBR for a road scheme but harder for the kinds of projects we need in order to get travel behaviour change. We need to be able to ensure investment in public transport, other modes and their integration.

REGG: [CHAT] Interested in Lisa's comment about LEPs. Why should that mean that that funding is not focused towards decarbonising transport? Appraisal system is just as constraining for LEPs.

NGO: [CHAT] i) appraisal system not at all constraining on carbon. ii) LEPs steered by business interests, prioritising economic growth & associating it with traffic growth.

REGG: [CHAT] Elected members, in my experience, are focused on business interests and often favour town centre parking over investment in public transport and cycling.

ACAD: Agrees modelling and appraisal are key.

6.16 Potential Bias in DecarboN8 Transport CO₂ Emissions Data

REGG: [CHAT] anything to do the types of jobs people do in these areas? Homeworking?

NGO: [CHAT] Is this Defra definition of rural, i.e. outside settlement of 10k+? Looks like a scorecard approach would be helpful to pick out factors that are most relevant to each place's transport carbon per head - and which factors are most addressable

INNOV: [CHAT] Has there been any analysis to split out the emissions from 'locals' compared to those from major roads going through? Taking Kettering as an example I suspect a large proportion of the emissions come from the A14 and A509 which are major trunk routes. The ones at the bottom of the list seem to be ones with major roads through them! Think you must take out the emissions from through traffic to make any sense of the data.

CONS: [CHAT] Rutland is also v small and lies in the middle of England - given the metric is CO₂ emitted on roads within the district, I wonder if it has more in/out/and through trips than some others.

CONS: [CHAT] These are fascinating and useful stats, thanks Richard. Clearly several factors going on - wonder if access to rail service also plays a part - but support your take home message that there is no excuse for not doing better

CONS2: [CHAT] I asked around about Copeland (low) vs Eden (high). Lots of head scratching.

ACAD: [CHAT] Eden might be the A66. But the A66 also runs through Allerdale.

7.0 Reports and Projects

AsSeTS Assessing Sustainable Transport Solutions for Rural Mobility is a new project from the Connected Places Catapult. This is modelling rural transport demand, travel patterns and rural operators. This includes E-bikes and motorbikes and seeks to demonstrate latent demand to encourage R&D and new operators.

Contact: Patrizia.franco@cp.catapult.org.uk

The Midlands Connect Rural Mobility Toolkit is an attractive A3 tool that shows options for projects and this will be followed up with a toolkit with guidance for LAs on how to locate a hub taking account of their geography, the level of digital connectivity and different rural needs.