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# The transport decarbonisation puzzle



Author **Glenn Lyons**

**What is the government's plan for taking the carbon out of our transport systems?**

Part of the plan is to: 'deliver a world class cycling and walking network in England by 2040'



The government's plan: *Decarbonising transport: a better, greener Britain* has been published and I have read it from cover to cover.

### Huge puzzle

Decarbonising transport amounts to completing a huge puzzle with many pieces: cars, buses, coaches, HGVs, trains, planes, ships, places, people, institutions, standards, markets, technologies, prices, politics and governance. What the plan does is try to give us the overall picture, so we have a sense of what we have to try and achieve. Some parts look reasonably distinct – for example, progressing electrification of the car fleet and the supporting charging infrastructure. Other parts are going to be more challenging; aviation and shipping are where it will be toughest to find solutions by 2050.

The plan is a start to solving the puzzles – for example, reminding us of commitments already in place, such as the phasing out of petrol and diesel cars by 2030. The problem is that we only have 29 years to complete the puzzle.

### Deliberative intent

There are many intentions set out in the plan – for example, 'We will deliver a world class cycling and walking network in England by 2040.' 'We will ensure the UK's charging infrastructure network meets the demands of its users.' and 'We will plot a course to net zero for the UK domestic maritime sector.' However, each one invites the question: how will this be done? Not all the answers are yet apparent, and even where possible answers are apparent there has not yet been an opportunity to gauge the views of all the key actors involved.

### User emissions

In seeking to tackle around a quarter of the problem of reaching a net zero economy by 2050, the plan is focused on emissions from use of transport: so-called direct or tailpipe emissions. It is not the business of the plan to address upstream emissions directly. The plan points to other government initiatives that are addressing these.

Nevertheless, dealing with use of transport has significant upstream implications. Put simply, if there is less demand for vehicles and for vehicle distance travelled, pressure is eased on emissions associated with vehicle production and new infrastructure construction, as well as on direct emissions from vehicle use. The plan is clear about the need for the transport sector to focus on green hydrogen as part

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of a green energy system; we are told an overarching hydrogen strategy is coming later this year.

### Not the old normal

Across the plan, there are some very positive signals of what better and greener could include that also strongly suggest a rejection of the 'old normal'. As the UK readies itself to host one of the most critical meetings affecting humanity, the plan points out that at COP26 almost every country in the world: 'will decide whether to deliver, and whether humanity takes what many believe to be its last best chance to get runaway climate change under control'.

The plan has examples of what a 'new normal' might include: 'It will be essential to avoid a car-led recovery . . . We must make public transport, cycling and walking the natural first choice for all who can take it . . . We need to move away from transport planning based on predicting future demand to provide capacity ("predict and provide") to planning that sets an outcome communities want to achieve and provides the transport solutions to deliver those outcomes.' Inspiring stuff, but transport professionals will recognise similar phrases from the past in policy documents over a period of many years. They will also recognise the policy-implementation gap.

### Missing puzzle pieces?

Part of the plan is to: 'deliver a world class cycling and walking network in England by 2040'. What the statement acknowledges is that we are not world class at the moment. The Gear Change white paper with £2 billion of new funding is a great opportunity. This tends to devote most attention to cycling; would not the

plan have been the perfect place to confirm there will be a nationwide ban on pavement parking in England?

There is passing mention in the plan of RIS2, the £27 billion Road Investment Strategy that has been grabbing news headlines because of its unclear relationship with decarbonisation. We are told continued high investment in our roads: 'will remain, as necessary as ever to ensure the functioning of the nation and to reduce the congestion which is a major source of carbon.' While almost half of the £27 billion is not for new capacity, this suggests the remainder is, which sits uncomfortably with avoiding a car-led recovery.

### Up in the air

Aviation is the most challenging part of the modal mix in transport to address in terms of technological solutions; yet while behaviour change intentions apply to surface transport, 'fly less' and 'fewer flights' are not phrases that appear in the plan. Domestic aviation accounts for 1.4% of total domestic transport CO<sub>2</sub> emissions. However, international aviation (and international shipping) in line with the Committee on Climate Change recommendation is now to be included in UK carbon budgets from 2033. The plan notes: 'Air travel may represent only 7% of UK greenhouse gas emissions . . . but it gets a great deal more than 7% of the political attention in this debate.' There is a sense from this quote, in spite of the monumental challenge this represents, of: 'What, little old me?'

Post-Covid-19, the message is: 'We expect air travel to recover.' In line with this, the plan rises to the challenge of how to decarbonise domestic and international aviation, including the intention to:

▼ The gravity of the climate crisis can be hard to comprehend



→ 'kick-start commercialisation of UK sustainable aviation fuels [and] consult on a target for UK domestic aviation to reach net zero by 2040.' Indeed, ambition is sky high: 'We have set ourselves the objective of flying the first zero-emission flight across the Atlantic,' though no date or size of aircraft for this is specified. Within the plan, the modelling for aviation decarbonisation trajectories is distinctive in not reaching decarbonisation by 2050, by some margin. This does not mean that reductions in emissions will not be achieved, but the government is required to pull out its 'carbon offsetting' card to deal with the anticipated (substantial) residual emissions: 'Any residual emissions in 2050 will be offset to ensure that aviation reaches net zero.'

### Over to you

The plan notes: 'As of February 2021, over 70% of local authorities had declared the urgent need to act on the causes and impacts of climate change.' I am immediately side-tracked by wondering why nearly 30% of local authorities do not see an urgent need to act. There is the prospect that if this plan works: 'People everywhere will feel the benefits.' The plan promises to coordinate local transport funding better, and then seems to draw breath to say: 'Local authorities will have the power and ambition to make bold decisions to influence how people travel and take local action to make the best use of space to enable active travel, transform local public transport operations, ensure recharging and refuelling infrastructure meets local needs, consider appropriate parking or congestion management policies, initiate demand responsive travel, as well as promoting and supporting positive

behaviour change through communications and education.'

I am sure local authorities want to be developing solutions that are tailored to the needs of their local populations and would welcome power and flexible use of funding to play their part. However, what comes across here is a clear sense that while Whitehall will deal with technology fix, local administrations can deal with influencing behaviour.

### In it together

Another missing puzzle piece for me was explicit consideration of how such fundamental changes to our transport system and its use might lead to differential impacts across a diverse population and how to avoid actions emanating from the plan exacerbating inequality and exclusion. There is brief mention of: improvements to public transport enabling inclusive mobility; a reformed planning system supporting good design and making communities more inclusive; and past out-of-town developments that have been car-centric and less inclusive. The terms 'equity' and 'equitable' are not anywhere in the plan. There are already concerns that the (early) beneficiaries of electric vehicles are those who are more affluent, while all taxpayers are contributing to the infrastructure to support them. I look forward to seeing what steps are taken to ensure that better and greener is also fairer and more inclusive as we cope with the financial aftermath of the pandemic and the climate emergency.

### Capacity

There is also, quite rightly, monitoring of progress and reviewing and updating of

the plan to attend to: 'We will publish our progress and review our pathway at least every five years.' While efforts to address transport decarbonisation are not confined to the Department for Transport, I am left wondering how many civil servants are currently dedicated to the monumental task of transport decarbonisation and how many will need to be as we move further from planning to execution.

With so much to be done and with multiple changes to take place concurrently or in swift succession in the next 29 years, coordination will be critical. I see two scenarios: one where the different dynamics become mutually supportive across the sector and a real sense of momentum and confidence builds up; and the other where different dynamics are in conflict and where interdependencies lead to disruption of progress and loss of momentum. We cannot afford the latter. It is encouraging to see several coordinating bodies that have been and are being set up to help address the different parts of the puzzle and bring industry and government together. We then turn to the matter of who coordinates the coordinators.

### Reference point

The gravity of the climate crisis can be hard to comprehend. The enormity of addressing decarbonisation of transport to help address this is very apparent. With the stakes so high environmentally, economically and socially, there is a natural inclination to want to see the plan get it right, whatever that means.

I remind myself to compare the situation now with only three years ago when a then 15-year-old Greta Thunberg first began her School Strike for Climate. We have moved on a lot, if not far enough and fast enough since then in terms of growing awareness, concern and willingness of authorities to at least acknowledge the climate emergency if not yet (know how to) act. Viewed from a reference point of three years ago, the plan is inspiring for its considerable set of pieces, even if we are frustrated that more of the picture has not yet been put together or that the picture on the cover of the puzzle box is not entirely to our liking.

### Glenn Lyons

Mott MacDonald Professor of Future Mobility, University of the West of England.

[glenn.lyons@uwe.ac.uk](mailto:glenn.lyons@uwe.ac.uk)