



Fleximobility

Unlocking Low Carbon Travel

Fleximobility: Unlocking Low Carbon Travel

Transport policy across the UK has, so far, failed to achieve high levels of sustainable mobility. This Green Paper therefore sets out a new approach, 'Fleximobility', where the focus for action needs to be placed not just on the transport system – but on the wider mobility system. It describes how new solutions can be developed which connect the activities we take part in with the transport opportunities which currently exist and which will emerge in the smart cities of the future.

Fundamentally, **Fleximobility is about designing a mobility system where it is more normal to take part in activities using more sustainable modes more of the time.** We believe that there are strong economic, environmental, health and social benefits to be gained from such an approach.

Most people are already multi-modal and flexible

The extent to which society is multi-modal is not well understood in transport policy. Over two-thirds of people use multiple transport modes in the UK every week.ⁱ Even for the journey to work, which is seen as habitual and difficult to change there is substantial variability. In a recent study in Bristol, 52% of people who had used a bicycle as their primary mode for the commute during the survey week had also used another mode of transport in the same week for that same journey, and similarly 36% of people who had used a car had also used another modeⁱⁱ

Even in what appears to be recurrent congestion there are huge variations in who is on the network at what time and for what purposeⁱⁱⁱ

We also know that the balance of modes people use also changes significantly over both the year^{iv} and the lifecourse^v. Housing and employment moves are particularly associated with significant shifts in the mode used for journeys to work, with 50% of people changing the main way they get to work every decade^{vi}

Our research (www.disruptionproject.net) has found that many people vary their travel frequently, partly as a result of the complex network of activities they participate in and due to the need to co-ordinate with friends, family and colleagues. Crucially, when faced with a need to change what they do there is evidence that people can and do adapt.^{vii} We found that many people could make greater use of more sustainable transport modes than they currently do, at least some of the time.^{viii}

The question this poses is “What will it take for more people to use more sustainable modes more of the time?”.

Transport System Solutions

In order for multi-modality to become more rather than less prevalent, we argue that the mobility system needs to be set up so that being multi-modal feels normal. This means acting on some of the things transport planners understand well and where the evidence to get on with doing is well established. This includes:

- Spatial planning that ensures that we don't build excessive travel requirements into our cities and rural areas.
- Transport systems that are accessible to all and designed to support the mobility of the least able.
- Multi-modal pricing that makes sense to people. Too often now the message to not use the car is not matched by price signals or those signals are too complex. Occasional, as well as frequent, use should be encouraged not penalised.
- Cycling infrastructure that allows for door to door connectivity as part of longer multi-modal journeys, and with high quality segregated paths that occasional users feel confident in using.
- Good communication with travellers of all modes about the options, opportunities and quality of service on offer.
- The promotion and facilitation of shared mobility solutions which act to reduce the need for car ownership without removing the option of car use.

This is not about any single intervention but instead the need to promote a package of measures that rebalances available transport options and which consistently reinforces opportunities for multi-modality, and especially sustainable modes, for more journeys. It is a basis for re-evaluating how we currently approach transport, including reviewing regulations, funding allocations and investment decisions.



Wider Societal Change

To only look to the transport system for solutions, however, is far too narrow. At least as much change to what, why, when and how we travel is occurring because of broader social trends than because of deliberate transport policies and interventions. For example:

- Large-scale forces such as globalisation continue to change how our economy functions. These determine which kinds of economic activities are in greater or lesser demand than before and the associated travel demands that these create.
- Flexible working is becoming more normal through cost saving initiatives such as zero hour contracts and through policies to improve work-life balance. There are also continuing changes in the level and type of female participation in the work force and in self-employment which impact on patterns of travel and travel demand.^{ix}
- New trends in youth mobility are emerging, with lower levels of driving license uptake and car ownership which are not explained just by falling incomes and rising insurance costs for this age group.^x

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- Technological changes, such as the cloud and widespread adoption of smartphones and tablets, make new means of working and social exchange possible and are radically altering how we shop, trade and co-ordinate our lives.^{viii}
- Our population is living longer, demanding more from the healthcare system as well as from the transport system to ensure a good quality of life in our communities in older age.

Some of these trends and opportunities will also be part of new transport solutions (such as real-time personalised travel incentives, peer-to-peer car hire and Uber). But we should not presume that such change will necessarily be consistent with lower carbon goals (e.g. one hour delivery of goods from internet orders).

A critical part of achieving greater multi-modality will be to understand how to influence and steer how we travel alongside, rather than in isolation from, these broader societal trends. The challenge for transport planners is to develop a vision for a smart city where the reconfiguring of how things are done makes the most of the better and more sustainable transport system that can be provided.

Our research with families and citizen groups in a range of contexts^{xi} demonstrated the need to think beyond just transport solutions to deal with our changing society



Poor Access to Workplaces and Rigid Work Systems

Peter and Nadia gave up their jobs when an office move meant their travel to work, previously by public transport, became too difficult. These jobs involved shift work for a telephone helpdesk, and the office move meant that the workplace was no longer adequately accessible by public transport. Journeys would take a long time, involving waits for services which did not link up, especially in the evening. Requests to work from home, while technically possible, were refused by the employer.

For these people, the problem was created by a combination of the transport system and employer expectations, and it could have been resolved by changes to either or both. Better public transport information alone would not have been enough to address this since the services needed did not exist and appear increasingly unaffordable as budgets are cut.

Journeys to School Shaping High Carbon Commutes

Mitchell and Katrina explained how the lack of good school access impacted on the family and the work choices that were open to Mitchell. Although the school was less than two miles from the family home, there was no direct bus route or school bus and it was not a journey that the children could make on foot or by bike. As a result, Mitchell had taken on two part-time jobs – one with hours contained

within the school day and the other in the evening, allowing him to drive his children to and from school. Two jobs, four trips and the school run with no net gain to the economy over a single job - yet with far greater carbon emissions. The failure to address safe access to school and the dispersion of home-school locations make the use of the car for both commuting and journeys to school more likely.

There are real, but often hidden, economic costs generated through the inability of the current system to service the diverse demands for mobility. Whilst it might be possible to design transport solutions to address these issues there are opportunities to engage with the activities which transport is serving and to move beyond just transport solutions.

Connecting to the activities people travel for

To what extent is it legitimate or effective to intervene in the systems of activity provision? The London Olympics and Glasgow Commonwealth Games both demonstrated that, when faced with an imperative to change, businesses were willing to consider reorganising how work is done in order to complement transport measures.^{vi} While these events are exceptional, the lessons do have wider applications. We examined the consolidation of the City of York Council from 17 dispersed sites to two sites in the city centre. The project was principally one of modernisation and changing the way the council worked. It was understood that there would be 20% fewer desk places and a need for flexible working, home working and hot-desking. The Council established a programme of organisational change, altering how teams worked and what was expected of individuals, alongside improving cycling provision and further reducing the limited parking provision that previously existed across the 17 sites.

The results of this study of change showed that days of home working doubled and that there was a significant shift in arrival and departure times for staff. The transport changes also contributed to a significant increase in cycling in particular. Greater potential for change was also identified but was constrained by how work tasks were organised and the particular facilities people needed access to. By tackling the process of organisational change and travel behaviour at the same time more significant reductions in journeys to work and increases in active modes were achieved.^{xii}



It is not just in work where the potential to think differently exists. In our study a group of older people explained why they were not inclined to go into town for an evening out, and to drive if they did. The lack of certainty over late bus services and the expense of taxis are major off putting factors which are difficult to correct in the current fiscal climate. However, the organisations that stand to gain from resolving the problem are the entertainment and hospitality sectors and they could play a role in the co-ordination of taxis or flexible minibuses to different communities in order to both reduce driving and increase business. The technology to coordinate this is available or could very quickly come on stream.

The 'Mobility System'

The transport system focuses on how we get from A to B, to the activities we want to take part in. We know, from our research, that the way these activities are organised and the social conventions around 'normal ways of doing things' shape where and how things happen. Transport is not separate to these activities but is very much part of the way they are done. We suggest that the future of transport planning lies in embracing a more holistic vision of a mobility system which comprises several elements:

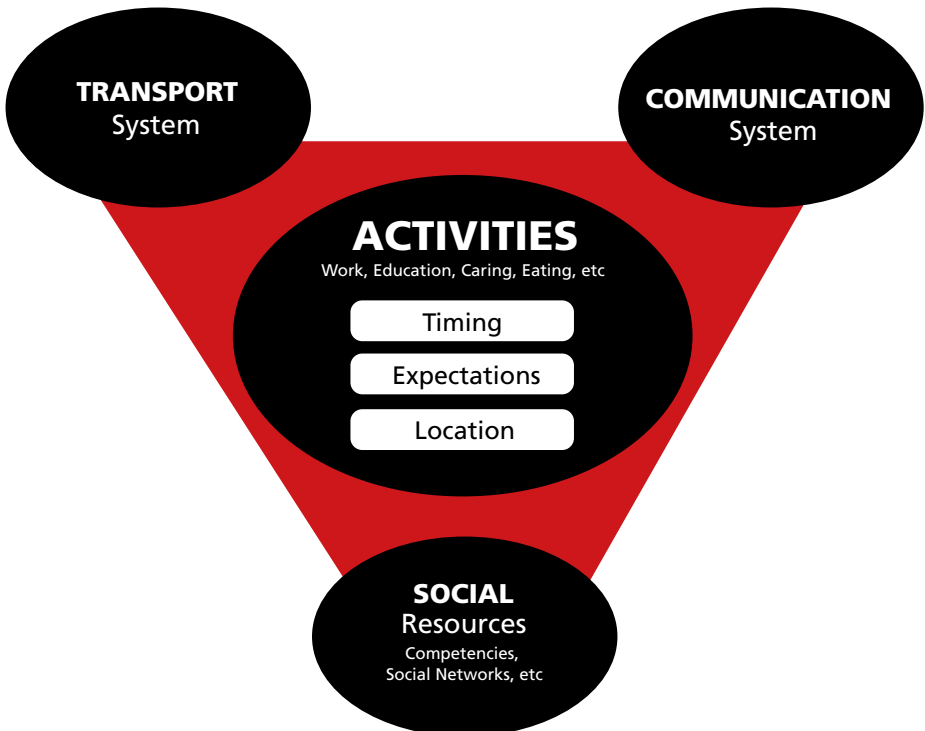
First, the transport system (the infrastructure, the policy and regulation, the pricing etc.) clearly remains important. There is an existing evidence base for what we need to do to make our system more multi-modal and there is a need to accelerate progress to do this (as described above).

Second, there is rapid and important change happening in communications technology. This is changing how we work, how activities, such as shopping, are organised and how we think about accessing them. Sharing is becoming increasingly possible through mobile platforms. ICT is clearly a key contextual change for the coming years and the implications for travel go well beyond simply smarter and better informed travellers.

Third, there is a strong social dimension to activities and mobility which sets the context for change well beyond an individual behavioural perspective. A mix of hard-wired factors (e.g. school start times, fare structures) and implicit social norms (presenteeism, on-demand consumerism) and expectations shape the environment in which decisions are taken and what it is 'normal' to do. Different cities have different mobility cultures and these can be developed over time. Change for an individual also happens within broader social networks (family, friends and colleagues) which can unlock or limit the potential for travel flexibility at different points across the life course.

Unlocking Low Carbon Travel

Finally, the 'Mobility System' is, then, the interaction between the transport system, ICT and social resources AND the activities we take part in. It means thinking about the wider economic and social system that transport supports and this places the ends (the activities) rather than just the means (the travel) at the heart of our thinking. Transport planners will need to continue to improve transport provision, but a smart city will be defined by much more than better information on how to get around. The task will require working with other sectors, businesses and communities to develop new types of solution which create smart, affordable and resource efficient ways of living.



Fleximobility – the key for unlocking sustainable mobility?

From our research we have developed the concept of 'fleximobility'. By this we mean a way of thinking about the whole mobility system that can make it more normal for people to use more sustainable forms of mobility more of the time. It takes the mobility system described above and looks for points of intervention across the whole system which will continually reinforce greater multi-modality.

Fleximobility is a way of thinking. It is a policy approach which ensures that the changes being made will make use of non-car modes more likely, more of the time. There are many ways in which things could be reconfigured to achieve this and innovations will continue to generate new opportunities. Local context matters, so our policy prescriptions should be seen as exemplars rather than a template.

In addition to the transport system interventions which we set out above, at a mobility system level planning for fleximobility would mean interventions such as:

- Tackling the home-school-work chain, which is often heavily car based. We need to go beyond existing approaches to safer routes to school and mobility proficiency by also examining before-school and after-school activities and care arrangements and their relationship with work flexibility.
- For those sectors where it works, greater flexible working and greater home working need an integrated approach to planning how, where and when work is done and the transport provision that fits with that.

- Working with city centre attractions to ensure that the night-time economy can be serviced by an affordable yet intelligent and low carbon transport system. This will be more diverse than the mix we see today and will move beyond the current forms of bus or taxi provision to consider options for greater use of shared transport.
- Examining how to intervene in urban delivery systems by, for example, considering the incorporation of drop-box facilities for small package consignments at public transport hubs outside of major centres to reduce congestion and make collection part of a public transport journey.

Engagement with broader systems of provision is not easy. However, there are clear benefits to integration and there are new ways of accessing data on activity patterns and associated travel which make it easier for transport planners to understand the social system they are trying to service.

We currently have a transport system that originated in the 19th Century (bicycles, trains, cars, buses). Now, 21st Century communications technology, alongside changing patterns of population, employment and lifestyle are rapidly transforming where and how we do things. The concept of Fleximobility embraces these changes, and challenges planners, transport providers and the providers of health, education, employment and leisure opportunities to innovate to produce new solutions. Done right, the smart city of the future will be more accessible and will see more of our journeys undertaken by more sustainable modes more of the time.

That is Fleximobility.

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About the project

The Fleximobility concept has been developed from a 3.5 year collaboration between seven universities. It draws on a range of evidence from ethnographic family studies, large scale questionnaires and investigations of major change events. We are grateful to the Research Councils UK Energy and Digital Economy Programmes (Award No. EP/J00460X/1) for their funding.



Further details about Fleximobility can be found at www.fleximobilitysolutions.org and further details of the underlying data, reports and articles can be found at www.disruptionproject.net

Project Investigators:

Prof. Greg Marsden (University of Leeds),
g.r.marsden@its.leeds.ac.uk

Prof. Jillian Anable (University of Aberdeen),
j.anable@abdn.ac.uk

Dr Tim Chatterton (University of the West of England),
tim.chatterton@uwe.ac.uk

Prof. Iain Docherty (University of Glasgow),
iain.docherty@glasgow.ac.uk

Prof. James Faulconbridge (University of Lancaster),
j.faulconbridge@lancaster.ac.uk

Dr Lesley Murray (University of Brighton),
l.murray@brighton.ac.uk

Dr Helen Roby (Open University),
h.m.robby@open.ac.uk



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