

Tools to encourage low-carbon travel

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Headlines

- Behavioural changes are a key dimension of decarbonising the transport sector, and incentive schemes provide a way forward for encouraging low-carbon travel choices.
- With appropriate support and actions from government, businesses, civil society and others, low-carbon incentive schemes can increase in scale and reach a greater part of the public, leading to more significant emissions reductions.
- Low-carbon schemes rely on parallel public, or public-private, investment in infrastructure. Financial support for businesses supplying the market with low-carbon transport alternatives may also be important.
- High-profile travel rewards schemes such as Air Miles currently have adverse effects on emissions and are likely to require stricter regulation and corporate social responsibility (CSR) commitments to facilitate a shift to low-carbon modes of transport.
- The UK government has an opportunity to become a leader in supporting innovative low-carbon transport incentive schemes in the run-up to COP26 and as part of a green recovery from COVID-19.

Introduction

Achieving the UK government's target of net zero greenhouse gas emissions by 2050 will require significant effort across all economic sectors. Transport is responsible for approximately one-quarter of global CO₂ emissions and, as it encompasses high-carbon activities such as shipping and aviation, is likely to be a challenging sector to rapidly decarbonise.

Enabling behavioural change in how people choose to travel will be necessary to deliver the emissions cuts needed, and incentivising low-carbon transport through targeted schemes can play a key role. This paper summarises a review of a sample of 11 different low and high carbon schemes which affect consumer travel behaviour and choices. The review is used to explore how policy makers and the private sector can support incentive schemes - encouraging greater success of low-carbon schemes, and disincentivising high-carbon schemes as well as helping them transition to low-carbon schemesⁱ.

ⁱ See Table 1 for the list of schemes

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As the UK emerges from the COVID-19 crisis, it remains to be seen to what extent societal behavioural changes, particularly in relation to transport, have been cemented as long-term habits rather than temporary by-products of lockdown. Despite a significant fall in greenhouse gas emissions as a result of reduced air and commuter travel, there is already a growing concern that emissions mimic those following the 2008-9 financial crisis; rebounding to even higher levels post-pandemic as economic recovery packages are rolled out.¹

Within this particular context, the UK government (along with governments across the world) has an opportunity to align its economic recovery measures with further encouraging the shift to low-carbon travel which has already seen a boost during lockdown. Supporting low-carbon travel incentive schemes is one important avenue, and this briefing sets out six key approaches for doing so, categorised into three major elements; increased spending, building stronger relationships; and legal action.

Box 1: Categorising incentive schemes

Low-carbon incentive schemes work in three different ways; by offering a stimulus that ‘pulls’ people towards low-carbon travel; by using disincentives to ‘push’ people away from a polluting mode of travel; or by enabling people to shift more easily towards low-carbon travel.

These low-carbon schemes encourage participants to switch away from high-emitting modes of transport and towards low-carbon alternatives, such as from driving cars to riding bikes, or from aeroplane travel to low-carbon rail travel.

High-carbon schemes, conversely, encourage use of high-emitting transport modes, such as using larger vehicles or flying more often, by rewarding users for those activities; inadvertently leading to adverse effects for climate change, as well as for local air pollution.

The 11 schemes reviewed in this paper represent a broad – though not extensive – mix of these approaches, with the aim of identifying shared attributes and lessons for encouraging growth of low-carbon schemes and shifting high-carbon schemes to low-carbon.

How to make low-carbon incentive schemes successful

While many low-carbon incentive schemes are somewhat successful and self-sustaining, their effectiveness in shifting the public towards low-carbon travel can be increased. Key areas for improvement include increasing access to financial resources; acting on underdeveloped infrastructure; and addressing risk concerns and inadequate legal protection.

Conversely, high-carbon incentive schemes increase polluting activities rather than support a shift to low-carbon modes of transport. Schemes such as Air Miles and other membership networks are popular because they provide strong spending incentives for members to increase their use of (often) high-carbon transport (See Box 1). Many of these schemes are now so established that regulating their use and mandating their shift to low-carbon instead is as important as supporting new low-carbon incentive schemes.²

This section sets out six areas which present opportunities for governments and regulators to support businesses and consumers to shift towards low-carbon incentive schemes and away from high-carbon schemes. Figure 1 provides a summary and the case studies that follow provide applied examples of these potential interventions.

1. Investment in public infrastructure

A major limit to further growth of many of the low-carbon schemes reviewed is unreliable, slow, uncomfortable or simply non-existent public transport infrastructure. The ‘Vélib Bike Share’ scheme in Paris works through the ‘pull’ effect of providing cheap, accessible bikes as a replacement to inner-city car travel; however, this can only be effective if users feel safe cycling in the city through the provision of ample cycle lanes.

Both bottom-up, localised funding, and larger top-down investment into improving public transport networks and infrastructure could help low-carbon incentive schemes reach their full potential.³

2. Subsidise low-carbon market suppliers

Many ‘push’ or ‘enable’ schemes are dependent on viable sustainable travel alternatives to work effectively. As such, public sector investment or support for providers of low-carbon travel alternatives is essential to see a shift in consumer behaviour.⁴

For the London Ultra-Low Emissions Zone (ULEZ) scheme, for example, a lack of affordable and abundant low-carbon alternatives (e.g. electric vehicles, bikes and e-bikes) constrains its ability to ‘push’ people away from travelling into the city by car. Uber’s ‘Clean Air Plan’, a currently high-carbon scheme looking to transition to low-carbon, relies on good alternative transport options being available to work.ⁱⁱ This business-public sector relationship may imply that some more innovative funding models should also be considered.

ii See case study on Uber Rewards on page 4.

3. Building public-private partnerships

Building partnerships between government and low-carbon travel scheme providers can bring various benefits depending on the needs of the scheme. The private sector strives for increased profits which in theory aids cost-efficiency, whilst the public sector brings security and helps address risk concernsⁱⁱⁱ. This added security can support schemes in taking bolder steps to enable growth.

Additionally, government support for specific schemes can increase their credibility. As the case study on ClimatePerks shows, the scheme could prosper further from the backing and reputational accreditation that a government partnership brings, as this would likely encourage take-up of the scheme.ⁱⁱⁱ

4. Greater regulation

Schemes that incentivise high-carbon travel contribute significantly to increasing emissions, especially since they tend to be large, well-established, and often highly popular given their membership structure and provision of financial rewards that save members money on their purchases (e.g. Air Miles).

As a result, some degree of government intervention through regulation is necessary, to limit further growth of such schemes and accelerate their shift towards a new low-carbon business model. Point-to-reward ratios could be regulated, in for example the Tesco ClubCard scheme^{iv}, to encourage train travel over aviation. Equally, taxation of the beneficiary (user) could act as a price signal to discourage the spending on high-carbon travel rewards. The revenue collected could be re-invested in low-carbon travel schemes instead.

5. Strengthen Corporate Social responsibility commitments

National carbon-emission laws for businesses already exist, but enforcement and regulation of Corporate Social Responsibility (CSR) is weak. While a growing move towards 'purpose' for businesses is likely to self-drive voluntary CSR measures, there may be a role for trade bodies, government or civil society groups to play in pushing for and securing stronger commitments and more reliable delivery.

Six points of intervention

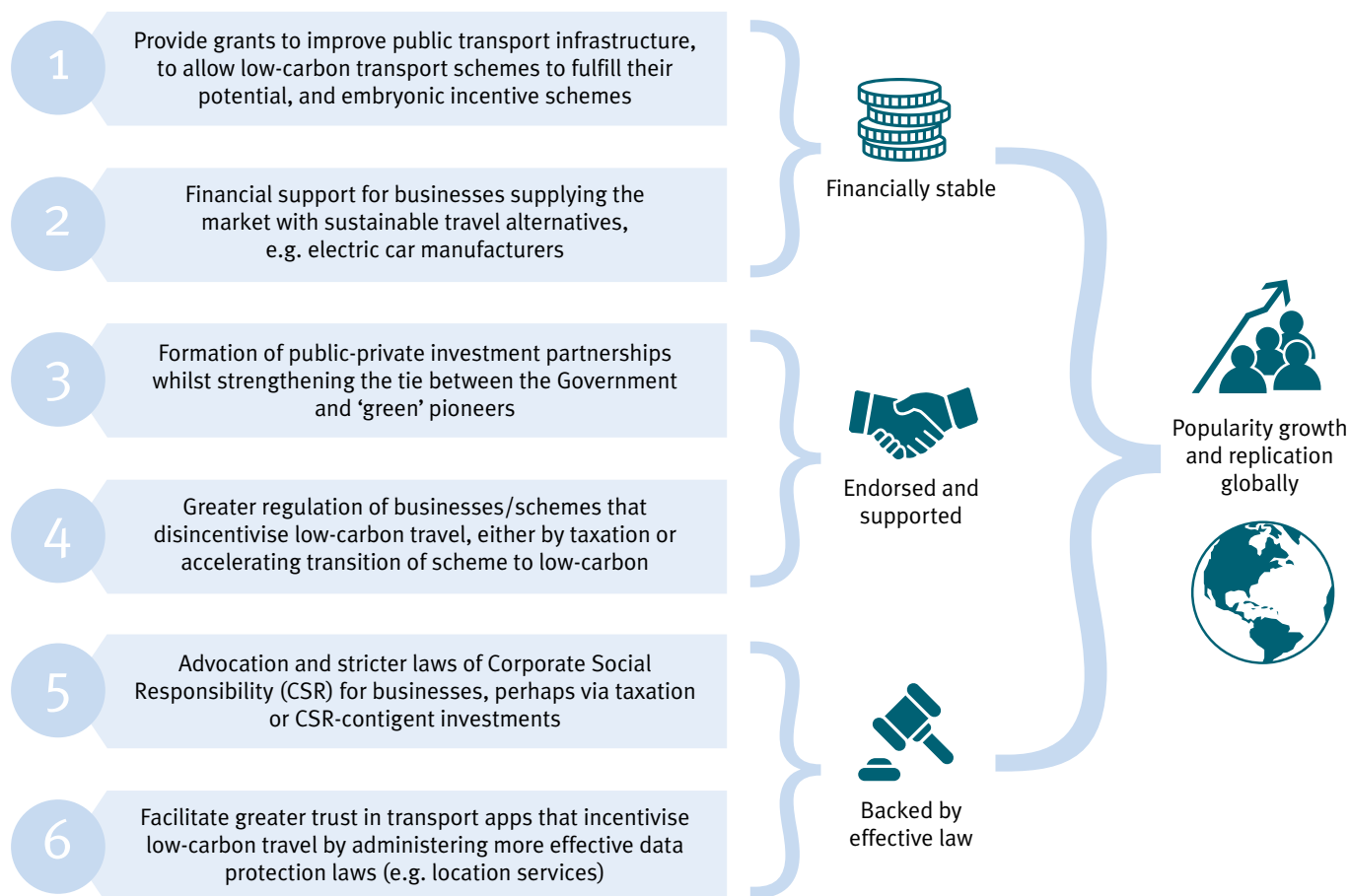


Figure 1: Six different ways that stakeholders can support the greater and effective use of low-carbon reward schemes.

iii See case study on ClimatePerks on page 5.

iv See Table 1 for description of scheme.

Options could include laws on CSR and more rigorous supervision to ensure limits are not being exceeded. Contingent bailouts could also be introduced, whereby governments agree to save struggling businesses from collapse only if they meet certain CSR standards – some of which have been observed as part of the COVID-19 recovery plans.

Such measures would help accelerate the transition away from high-carbon incentive schemes, and drive businesses to make use of low-carbon travel incentive schemes for their employees.

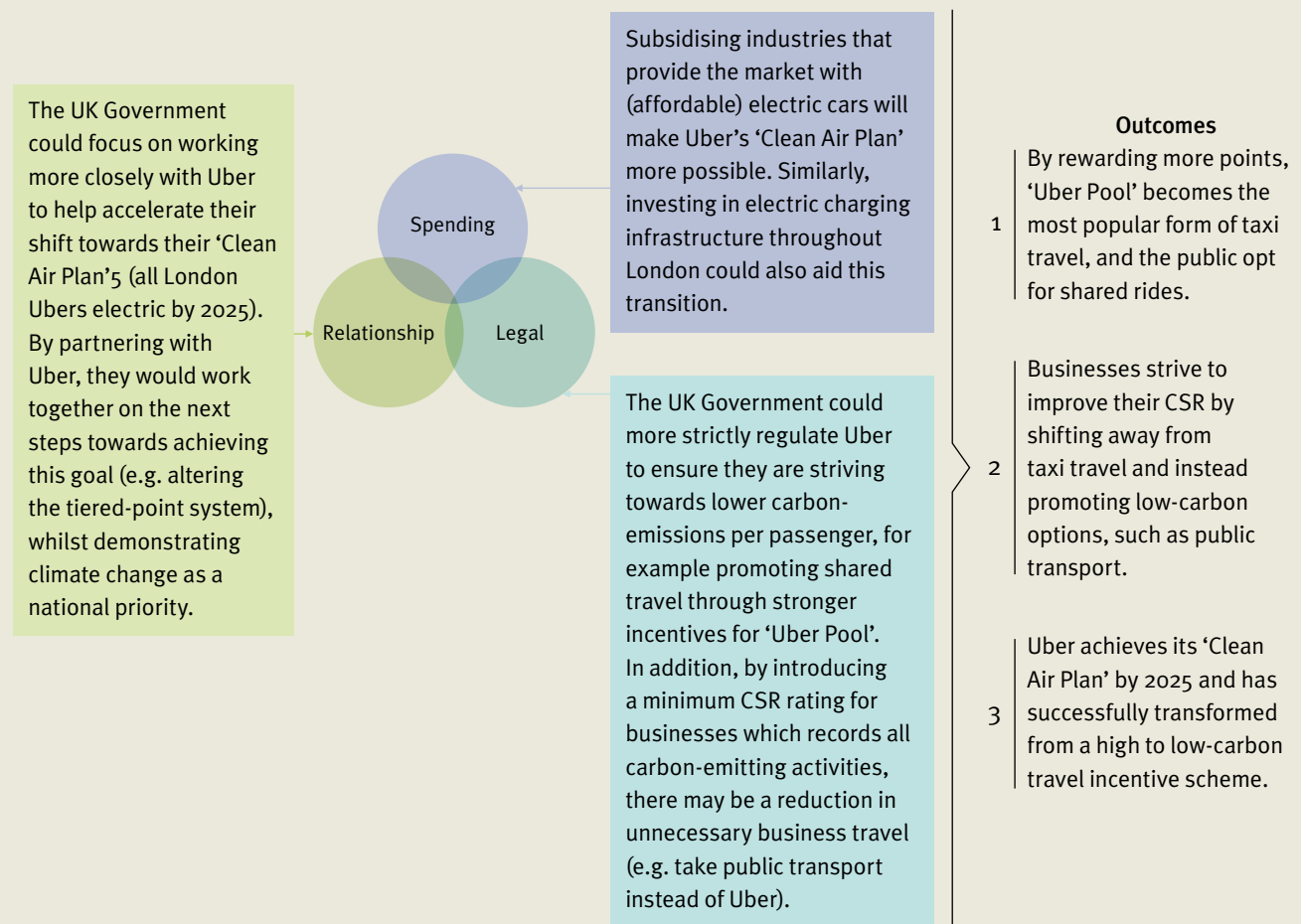
6. Improved data protection and privacy

For those schemes that depend on personal data collection such as user location and travel mode (e.g. Citymapper and Miles App), the issue of data protection and privacy is significant. Potential users are likely to only participate in a scheme if they trust their privacy is respected when giving away data, such as when downloading apps or revealing their location.

Case study: Uber Rewards

Uber operates in 65 countries, with its new Rewards pilot scheme restricted to just 25 places in the US, looking to expand elsewhere. Users are rewarded with Uber points, earning 1 point/\$1 spent which, once accumulated to 500, earns them UberCash. This grants free trips, UberEats delivery and more. This points system is tiered, with UberPool earning 1x points versus Uber Black 3x points, thus encouraging more luxurious car models (i.e. Uber Black). Uber revenue increased by 43% on 2017, following the initiation of the Reward scheme. However, it has high start-up and running expenses, including driver incentives and insurance costs, with its other main challenge being strong competitors (e.g. Bolt and Ola).

Whilst Uber is currently a relatively high-carbon emitting scheme, despite having elements of being a ‘car-share’ service, the right support would help it shift towards reducing carbon emissions in the transport industry. This outcome can be achieved through focusing on three key dimensions.



v See Table 1 for details of these schemes

As low-carbon transport services are increasingly digitalised, government has an important role to play in ensuring data protection laws are comprehensive and followed by all low-carbon transport incentive schemes, in turn leading to greater user uptake. The primary responsibility of privacy protection, of course, lies with the business itself in the form of personal data privacy standards, but it may require a push from government to encourage the uptake-up of these stricter privacy regulations.

Evaluating the success of incentive schemes

Low-carbon incentive schemes, if successful, are able to significantly reduce the transport industry's contribution to carbon dioxide emissions by unlocking a notoriously under-utilised driver of action on climate change; public behaviour. However, some schemes are more effective than others in doing so.

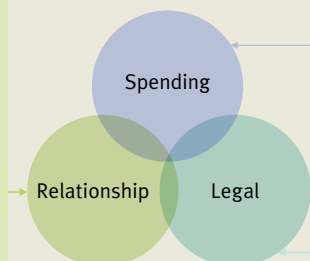
Case study: ClimatePerks

ClimatePerks is a pilot scheme, run by climate change charity Possible, that collaborates with employers to pay “journey days” for low-carbon holidays, to support staff in using alternative modes of transport to avoid flying. The scheme is free to join for any company or organisation, but the employer must offer staff at least two paid “journey days” to travel to/from their holiday destination. In turn, employers are given a stamp of accreditation by ClimatePerks to promote their participation.

Businesses may be reluctant to increase holiday time for financial reasons and employees may prefer to fly due to a lack of reliable alternatives or to avoid longer journeys. However, joining could be very beneficial for businesses' environmental, social and governance (ESG) and corporate social responsibility (CSR) credentials, which will become increasingly important in attracting longer-term, lower-risk finance in the low-carbon transition.

A three-pronged support approach could help see the desired outcome of transitioning this scheme from pilot to mainstream status and consequently greater low-carbon holiday travel amongst employees.

A public-private partnership between the UK government and ClimatePerks could give this scheme the official certification and the reputational boost necessary to gain traction within the private sector. If the CP accreditation given to businesses for signing-up is government-backed and encouraged, businesses will be more likely to join the scheme.



Since this scheme does not turn over any revenue, government grants/subsidies could provide a financial “stepping-stone”, enabling the scheme to continue running beyond pilot stage and develop better marketing to appeal to more businesses.

Currently a form of “soft law”, if minimum business CSR ratings were to become legally imposed, ClimatePerks could attract more businesses since their stamp of accreditation could help boost businesses' CSR score and recognition for being environmentally conscious. Policies could also be focused on making the scheme obligatory for employees of companies of a certain size and/or long-term profitability.

Outcomes

- 1 Businesses seek to improve their CSR rating and, due to strong marketing, desire CP accreditation.
- 2 Employers sign-up to CP, giving employees two extra paid “journey days”/year.
- 3 Employees choose holiday travel by low-carbon modes of transport (e.g. train/ferry).

Longer-term studies are required to evaluate the effectiveness of incentive schemes in shifting behaviour towards low-carbon travel. The results should be transparent and fed to public and private sectors in order to help steer future progress towards meeting decarbonisation strategies and targets, such as the UK's net-zero emissions target for 2050.

Assessing the “success” of any given scheme should consider two key elements; (current and potential) user numbers and the carbon dioxide saved per user (i.e. CO₂ emitted using scheme vs. alternative). This information can help signal to governments which schemes have the greatest potential to reduce CO₂ emissions from the transport sector through enabling behavioural change, and hence where the public sector should target its efforts. Table 1 provides some basic information about the schemes assessed for this research.

Table 1: Low-carbon incentive schemes.

Table 1 details the 11 incentive schemes researched and analysed to provide the evidential backbone of this briefing.

Scheme	Description	Location and scale	Lessons learned	Actions to enable further emissions reductions
Vélib Bike Share	<ul style="list-style-type: none"> – Bike share scheme – Established 	City; Paris	Schemes requiring physical infrastructure are costly both in the short and long run. Cannot function unless users willing to use an app.	1 6
Citymapper app	<ul style="list-style-type: none"> – App showing quickest, easiest and cheapest way of travelling via public transport – Established 	International	Schemes that are free to the user can struggle to cover costs since only income comes from investment. Scheme is unable to run unless sophisticated public transport exists and users are willing to use an app and share location.	1 6
ClimatePerks	<ul style="list-style-type: none"> – Collaboration with employers to pay “journey days” for low-carbon holiday travel- – Pilot stage 	International	Success hinged upon improving its reputation among businesses and making stamp of accreditation more highly regarded.	3 5
ULEZ	<ul style="list-style-type: none"> – Charges for cars driving within zone that fail to meet certain emission standards. – Established 	City; London	Emission standards and financial charge is too low; many polluting vehicles either escape charge or choose to drive regardless of fine.	1 2
Miles app	<ul style="list-style-type: none"> – Earn rewards based on carbon footprint of transport mode – Newly established 	City; Sacramento City	Must have more desirable rewards from more popular retailers to be successful. Scheme cannot run without sophisticated public transport and a willingness to use an app and share location.	1 6

Opportunities for existing schemes

The schemes outlined in Table 1 vary in both geographical scale and prominence, however they all reveal individual challenges and successes indicating where Government support could aid efforts to influence consumer travel choices and incentivise low-carbon transport. For a full description of methodological background, please refer to the research paper on which this briefing is based.⁶

Table 1: High-carbon incentive schemes.

Table 1 details the 11 incentive schemes researched and analysed to provide the evidential backbone of this briefing.

Scheme	Description	Location and scale	Lessons learned	Actions to enable further emissions reductions
Hopper app	<ul style="list-style-type: none"> Predicts the best times to buy flights based upon when the price will be at its lowest Established 	International	Utilising the consumer desire to travel at lowest possible cost is effective, along with the use of push notifications to optimise ease and save user time.	4 5
Tesco ClubCard	<ul style="list-style-type: none"> Rewards users with leisure airmiles/ UberCredit when spending on their card Established 	Regional	Linking scheme to everyday consumer credit card is hugely advantageous as this serves a spending function in itself. Consumers are highly incentivised by points in order to earn rewards, particularly on travel which can be costly for families.	1 4
AMEX Platinum Business card	<ul style="list-style-type: none"> Rewards users with business airmiles with spending Established 	International	Businesses have high spending and travel patterns and hence linking a scheme to this can benefit both sides. Businesses seek to reduce costs wherever possible and schemes to gain users; with many employees the opportunity to accumulate points and users is promising.	4 5
HMRC Mileage Rebate	<ul style="list-style-type: none"> Claim mileage rebate when driving personal car for work Established 	National; UK	The likelihood of employees driving to work is much higher if they receive compensation from their employer rather than claiming rebate from HMRC themselves.	2 4
Uber Rewards	<ul style="list-style-type: none"> Rewards you with free/ discounted rides or food when using its service Pilot stage 	National; USA	Users are strongly driven by rewards points as they can be spent on more rides/food. A mobile app makes tracking points easy and hence encourages users to become invested in collecting points and rewards.	2 4
Air Miles	<ul style="list-style-type: none"> Rewards frequent flyers with discounted flights/upgrades Established 	International	Consumers are highly incentivised by cheaper air travel, particularly those with large families or who travel regularly. Alliances are effective as they give users a broader choice of airlines.	1 4

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About the author

Rosanna Hine is currently pursuing a degree in Natural Sciences at Durham University, with a strong interest in biology and anthropology. Before starting her degree, she spent time at the Grantham institute exploring her interest in climate solutions and the social and biological drivers behind protecting the environment. She is interested in using concepts and theories to underpin relevant advice.



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