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How to drive a modal shift from private vehicles to public transport, walking and cycling

Governance, Collaboration and Engagement | Transport | Urban Planning and Design

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For the last 100 years, cities' transport strategies have prioritised cars and traffic speed flows. Today, the cities with the most successful transport strategies are prioritising the movement of *people*, giving residents and visitors a wider variety of attractive transport options.

Moving people, not cars[1]

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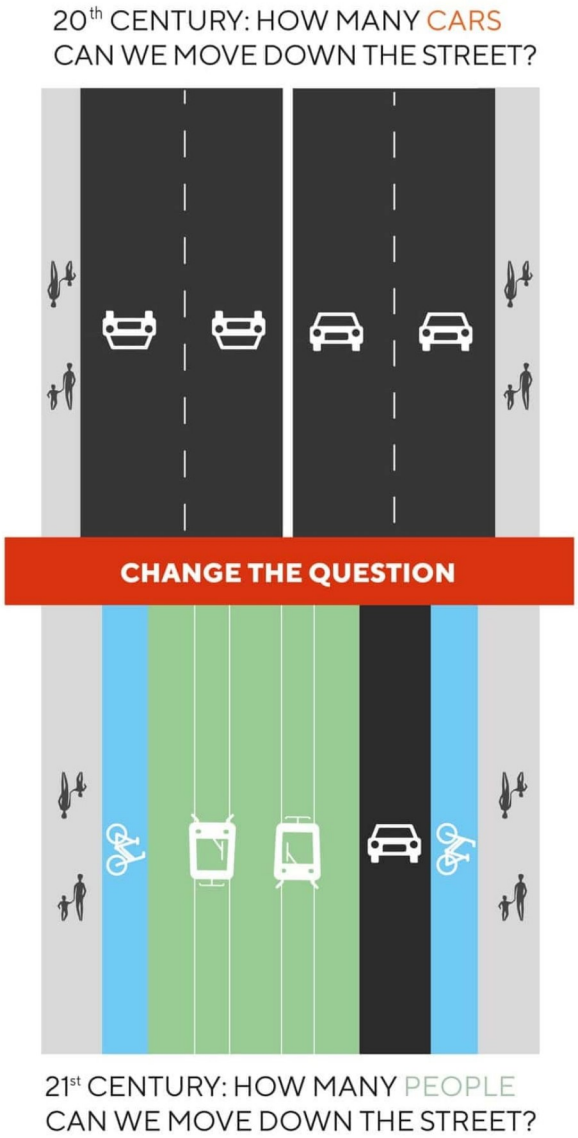


Shifting people from private vehicles to more sustainable modes of transport delivers huge benefits for the health and prosperity of cities and their citizens, as described in *Why green and healthy transport modes deliver vast rewards for cities*. It is also essential for reducing urban greenhouse gas emissions.

Cities have a critical need and unmissable opportunity to accelerate the shift to sustainable transport modes. A mix of incentives and disincentives offer a means to achieve change in the short- to medium-term, while urban planning approaches – particularly transit oriented development, as well as ideas such as the 15-minute city – can achieve a larger modal shift in the longer term.

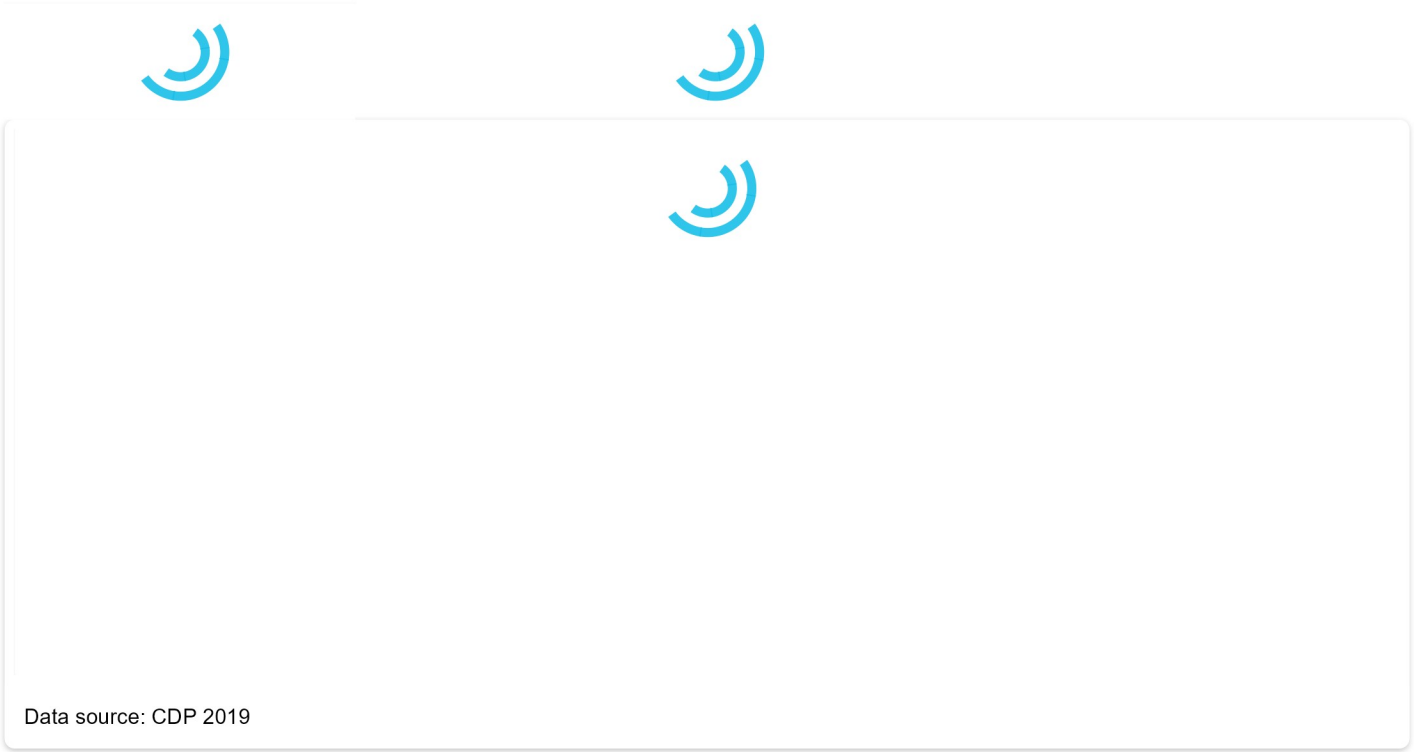
This article introduces the strategies cities can take to drive a shift from private vehicles to public transport, walking and cycling. It was originally published in 2019 and updated in 2021.

Measure current modal shares, conduct analysis of modal share potential and set targets

Begin by collecting data to gain a full understanding of the existing situation. Measure the number of people traveling by different modes and conduct analysis of the feasible potential for walking, cycling and

public transport use. Based on this data, set ambitious and realistic targets. Modal share targets are usually set as a percentage of trips.

Many cities report data on transport mode share to CDP. Explore the mode share data for your city and others in the graphic below, or visit the *Transport Data Explorer*. You can also find the transport mode shares for cities with the highest travel by sustainable modes here.



Data source: CDP 2019

Ambitious and realistic targets vary widely from city to city

The Mayor of London's Transport Strategy 2018 set a target of 80% of all trips in the city to be made by walking, cycling or public transit by 2041, up from 65% at the time of the strategy's release.[2] This target was informed by analysis that established how many current car trips in London might feasibly be made by walking or cycling. Buenos Aires achieved an 82% sustainable modal share in 2018, and is aiming for 85% in 2019. Meanwhile Los Angeles is aiming for at least 35% by 2025 from around 18% today[3] – all are ambitious, and realistic.

Discourage private car use through road pricing, and driving and parking restrictions

Making private vehicle use more expensive or inconvenient is essential to driving a modal shift. Cities such as Singapore, Milan, Stockholm and London have road pricing schemes that charge drivers for using

their cars in city centres, or ban the most polluting cars from some areas – often through the use of a low emission zone as a policy tool. Follow the links to read about how London has implemented the Ultra-Low Emission Zone road-pricing scheme, and to hear from Jonas Eliasson, who played a pivotal roles in introducing Stockholm's congestion charging.

Other cities such as Oslo and Seville have introduced measures to make parking more difficult in target areas, by turning parking spaces into cycle lanes or pedestrian areas, or increasing parking fees. Cities including San Francisco and Mexico City are using demand-based parking fees that increase when demand is high.

ITDP's *Taming Traffic* offers detailed guidance on fee-based and non-fee-based traffic reduction strategies, including the pricing of parking, emissions and congestion, as well as reallocating road space for people and the use of limited traffic zones.

Provide real alternatives that people will choose

Alongside disincentives for private car use, a shift away from private vehicles requires the provision of convenient, efficient, affordable and appealing alternatives that travellers will *choose* to take.

To achieve this, cities need to give space to – and prioritise – alternative forms of transport on their roads; invest in alternative transport infrastructure; ensure multi-modal network connectivity; and introduce schemes and incentives such as cycle hire and smart ticketing to make them an attractive first choice.

Read about how to design and implement attractive alternatives in the linked resources below:

- Walking and cycling.
- Mass transit, which includes street-level mass transit such as light rail and bus rapid transit (BRT) using zero emission buses, as well as metros, trains, trams, cable cars, electric ferries and more.
- Shared cars, particularly shared electric vehicles.

Most cities will pursue a combination of these transport options in parallel, according to their suitability for their city context. Rapidly developing cities, particularly those in low- and middle-income countries, have an opportunity to leapfrog past the toxic urban highways of the past by investing in walking, cycling and public transit now – avoiding costs that more developed cities are paying to transition car-based urban transport systems to sustainable modes.

Implement transit-oriented development to achieve a longer-term, larger-scale modal shift

In the longer term, cities need to pursue urban development that enables citizens to end their reliance on

private cars. Transit-oriented development (TOD) facilitates this by concentrating well-designed urban development around mass-transit nodes. TOD policies 'up zone' for greater building density around transit hubs or corridors, and often replace 'parking minimums' regulations with 'parking maximums' to discourage driving, among other measures. São Paulo and Mexico City are among the cities to have abolished parking minimums.[4, 5]

TOD is the accepted best-practice for sustainable urban planning. This is spurred by success stories such as Curitiba in Brazil, which achieved a sustainable modal share of over 49% due in part to TOD policies encouraging denser development along a network of bus rapid transit corridors.[6]

Successful TOD requires long-term commitment and an integrated approach to planning that incorporates transport, real estate, urban design and equity considerations. Los Angeles is among the cities working to transform car-culture to build a healthier city through TOD, among other measures; the city's air quality advisor explains more.

Also pursue '15-minute city' ideas to reduce unwanted trips and support the shift to sustainable transit modes

Appetite for more liveable, people-oriented cities is driving a surge of interest in the '15-minute city' in the wake of the COVID-19 pandemic. This is an urban planning principle which seeks to provide everyone with essential amenities within a 15-minute walk or bike ride from their homes, and to ensure equitable access to public transit for longer trips, among other things. It already takes many names and shapes around the world – leading examples include Bogotá's *Barrios Vitales*, Portland's *Complete Neighbourhoods* and Melbourne's *20 Minute Neighbourhoods*, as well as the Paris *15-Minute City* that has captured international attention. Read more about it in *Spotlight On: 15-minute cities*.

Finance the modal shift

The needs and approaches for financing a modal shift differ depending on the strategy taken to achieve it. Large transit projects are expensive and require long term investment. However, relatively cheap strategies can also have a large impact, such as streetscape alterations for walking, cycling and priority bus lanes, marketing campaigns and car-free days. Public transport funding options, including policies such as road pricing, can generate new revenues that can help to finance parallel efforts to promote sustainable transport options. Read *Six effective ways for cities to invest in climate action* for more on financing instruments and revenue-raising opportunities, and access our library of resources on finance.

Investment now will aid cities' economic growth

Proper investment in public transport systems will not only safeguard existing jobs, but can also create millions of decent, sustainable jobs – as well as cut emissions from the transport sector.

Promote sustainable travel choices through positive marketing and personal stories

Cities should consider running public relations campaigns to market alternative transport options, based on their understanding of current social attitudes and norms. Communication alone cannot bring about a modal shift, and will only work alongside physical measures outlined above, but it can be effective at driving uptake.

Cultural factors play a huge role in individual transport decisions. For example, car ownership is an enduring status symbol in many cultures, while public transport, cycling or walking may have negative social connotations. Norms will evolve as ridership increases and travellers start to see their peers taking advantage of these alternative modes. However, cities should also challenge unhelpful norms to accelerate this process.

Public relations campaigns that highlight what people can gain by switching to sustainable modes are typically most successful. This might mean stories of individuals who have saved time and money, reached their destination faster and more comfortably, escaped traffic and congestion, improved their health, or discovered new parts of the city, by using sustainable modes. In this sense, cities can learn from the car advertising industry, which sells a desirable lifestyle and idealised image of driving on the open road.

Messaging that aims to make drivers feel guilty is not usually effective. In addition, cities should avoid focusing messaging around public transit or cycling on negatively-perceived safety issues.

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