

FREEDOM TO BREATHE

Rethinking urban transport

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Traffic jam in Singapore rush hour

Source: epSos.de/Wikipedia

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FREEDOM TO BREATHE: RETHINKING URBAN TRANSPORT

Creating sustainable urban transport systems will satisfy our desire for freedom of movement, while dramatically reducing the impact the transport sector has on both human health and the planet. Phasing out diesel and petrol engines will make our cities greener, quieter and healthier places to live. Putting people, not cars, at the centre of urban transport planning, will not only transform city living, it will also help protect the climate.

While air pollution affects children and elderly people the most, the respiratory and cardiovascular diseases it triggers can be damaging and even fatal at any age. In Europe alone (where recent numbers are available), air pollution from all sources is responsible for nearly half a million premature deaths every year¹ – with a vast number attributable to road transport.

Meanwhile, the climate crisis is unfolding at an alarming speed. The Paris Climate Agreement states that we need to limit the rise in global mean temperature to well below 2°C and as close as possible to 1.5°C. To meet our climate goals and tackle air pollution, we have to address one of the main root causes: fossil fuel powered vehicles.

The way forward is clear. To create healthy, flourishing cities where people can live free from the health problems associated with air pollution and to protect our climate we must virtually eliminate vehicles run on fossil fuels from our roads and radically rethink our approach to the way we move around our cities.

PEOPLE OVER CARS

Redeveloping our cities to prioritise people, instead of prioritising cars, will help create better places for people to live. Residents, commuters, tourists and workers will be more likely to reach their destinations without wasting time in polluting traffic. A combination of people walking, cycling and using renewable-powered public transport will mean that people can move through quieter, cleaner and healthier cities.

Sharing electric vehicles, rather than owning them, would free up space that could then be transformed into parks and green areas. In some of the world's cities, vast areas are surrendered to cars. In urban areas of Los Angeles County, an estimated 14% of land – 200 square miles – is dedicated to parking.²

An increase in shared vehicles would not only help lower emissions, it would mean that more places for relaxation and recreation could be created, resulting in cities that are more people-centred and promote greater social interaction. Healthier, happier communities can emerge where noisy, polluting fossil-fuelled traffic once stood.

Car free days in **New York** were created to help New Yorkers “imagine a cleaner, safer city with more public transportation, more walking, more public space, and fewer cars”³. The event has proven to be hit with New Yorkers, giving people a taste of what it's like to enjoy their city without the worry of breathing highly polluted air.

1 European Environment Agency, Air Quality in Europe 2016 Report – EEA Report No. 28/2016
2 Journal of the American Planning Association, 2015, 81(4), pp. 268-286. Report available at: <http://www.tandfonline.com/doi/abs/10.1080/01944363.2015.1092879?journalCode=rjpa20>
3. From Car Free Day NYC website: <http://www.carfreeday.nyc>



Volkswagen's Autostadt,
Wolfsburg

Source: pexels.com

BETTER AIR QUALITY AND OPTIMUM URBAN SPACE: TWO SIDES OF THE SAME COIN

Diesel and petrol engines are one of the main sources of urban air pollution – and the main reason nitrogen dioxide (NO₂) limits are still exceeded in so many European cities. Electric vehicles, on the other hand, are far better suited to urban settings. They are much quieter, emit no exhaust fumes and are much more efficient. And their engines use much less energy when driven in a stop-and-go driving pattern, which often occurs in cities as a result of heavy traffic.

A massive shift away from fossil fuel vehicles to electric would lead to a much needed transport revolution. But changing cars alone is not enough. As the use of electric vehicles increases, these cars must be powered by clean energy. And crucially, we need to transform our cities so that we use cars less.

In **Copenhagen**, a city with hundreds of kilometres bike lanes, 62% of residents choose to cycle to where they work or study⁴ – a figure that's risen 12% since 2015. Cyclists and pedestrians have right of way at intersections, making the city very convenient for biking.

The world is projected to have 41 mega-cities with more than 10 million inhabitants each by 2030.⁵ Meanwhile, 54% of the world's population

already lives in cities, with this number expected to increase to 66% by 2050. Unless more is done to enable people choose greener transport options – like buses, trains, walking and cycling – our cities will face further congestion and pollution as populations rise.

The current system, where privately owned cars dominate global transport, is also remarkably inefficient. It is estimated that the average car is only used 5% of time.⁶ As tens of millions of cars are manufactured each year, a vast amount of natural resources are being used to make vehicles that sit idle on driveways or streets 95% of the time.

Until recently, New Road in the centre of Brighton, UK was a little noticed side street. But in the course of extensive alterations, New Road was turned into a shared street and public space where people can spend downtime or meet up with others. New Road complements neighbouring destinations frequented by the general public and has become one of the busiest spots in town. The transformation resulted in: 93% less traffic, 175% more pedestrians and 600% more time spent in the street.⁷

4. Copenhagen City of Cyclists – facts and figures (2017). Published by the Cycling Embassy of Denmark: <http://www.cycling-embassy.dk/2017/07/04/copenhagen-city-cyclists-facts-figures-2017/>

5. United Nations data: <http://www.un.org/en/development/desa/news/population/world-urbanization-prospects-2014.html>

6. Calculation by reinventingparking.org: <http://www.reinventingparking.org/2013/02/cars-are-parked-95-of-time-lets-check.html>

7. Statistics from Cities for People (2010), by Jan Gehl. Published by Island Press: <https://islandpress.org/book/cities-for-people>

THREE TRANSFORMATIVE STEPS

A global shift away from privately owned cars to walking, bicycles, shared electric vehicles and public transport would not only reduce pollution and help improve human health – it would lead to much better use of the planet's resources.

1 REDUCE EMISSIONS

Cities can promote shared ownership of electric vehicles by, for example, providing more charging points and offering reserved parking space. Powering electric vehicles with renewable energy will minimize emissions even further. Consolidating deliveries will avoid needless movement of vehicles. And switching to electric cargo bikes (human powered vehicles designed and constructed specifically for transporting loads) will immediately decongest the streets. Giving priority to pedestrians and cyclists will encourage people to make the switch to healthy, low cost, zero-emission transport.

2 DEVELOP INFRASTRUCTURE TO PROMOTE QUALITY OF LIFE

Cities need efficient and renewable energy powered public transport available to all. Reducing speed limits for motor vehicles and prioritising public space for use by people and public services will create a less stressful environment for people to move about in. This means re-allocating existing space away from cars (garages, parking) and towards people (pedestrian and cycling paths, green areas). Car free zones, or zones where only emergency services, delivery vehicles and public transport are allowed will improve the experience of city living.

3 REINVIGORATE CITY CENTRES WITH NEW SERVICES

Car free zones, new forms of public transport available to everyone and the development of integrated mobility services will make city centres more vibrant. This means integrating the networks of various transport modes and linking them with public spaces and destinations; routes therefore can be travelled from end to end using several different modes of transport – which can be easily switched between. Such integration should include a single ticketing system for all modes of public transport and simplified tariff systems. We must design new mobility services that encourage the use of green mobility over the use of one's car. Bicycle and vehicle sharing should also be promoted.

Some cities have already started reinventing their urban transport systems. In October 2017, the Mayor of **Paris** announced that France's capital city will take further action to tackle traffic congestion and air pollution. On top of existing plans to ban diesel cars by 2024, Paris's Mayor has now proposed to do the same with petrol fueled cars by 2030. So long as this announcement is followed through, programs to encourage alternative forms of mobility - such as new cycle paths and public transport - will encourage Parisians to take journeys that are currently made by car.

Electric vehicle (EV) charging station in Sunsuria City Township, Sepang, Malaysia

Source: pexels.com

SIX GUIDING PRINCIPLES FOR URBAN DECISION MAKERS

Cutting transport demand within city centres is key to enabling cities to support a greater population with the highest possible quality of life. We can achieve this by reducing urban sprawl, and creating more compact and more efficient hubs – with space for homes, workplaces, shops and leisure that keep travel needs to a minimum. **Though shifting to sustainable transport will require a different approach from city to city, here are six areas that should be addressed.**

1 PROXIMITY

Urban services, such as leisure, shopping and education, will need to serve an increasingly diverse population. They must be located close to the people who use them and all modes of urban transport must be coordinated to make them accessible.

2 CONVENIENCE

Access to urban amenities and services must be easy and convenient for all, including those with physical impairments. Infrastructure should be uniform so users can immediately recognise and make use of its functions. Such infrastructure must include the appropriate shelters at waiting points, traffic light control prioritising pedestrians and cyclists, bicycle racks close to highly frequented destinations, and the ability to reserve shared services, such as bicycles, online.

3 CONNECTIONS

Pedestrians and cyclists must have access to a continuous network of direct routes that connect public transport, places of work, schools and other destinations of daily life.

4 ENJOYMENT

Urban spaces must be designed to meet human needs, to stimulate us to take advantage of all the opportunities a city offers. The identity of special neighbourhoods with their heritage and history can be preserved and enhanced. Recreation in all forms, from relaxation to social opportunities, must be attractive and easily available.

5 SAFETY

Public and non-motorised modes of transport, including walking and cycling, must be safe from traffic, crime and violence and must take health aspects into consideration. Increasing safety in turn will promote the attractiveness of cleaner modes of transport.

6 PROMOTING SUSTAINABILITY

Campaigns and education will help encourage public and private sectors, as well as individuals, to collaborate and share resources to work out what changes need to be made and how to implement them in order for city living to become truly sustainable.

A VISION TO INSPIRE

It is clear that with technological and social changes, cities can eliminate fossil fuel powered vehicles, rapidly reduce pollution and help find solutions to climate change. But for a truly sustainable future, more innovative and inspiring city designs are also needed to promote the health of individuals as well as healthy social interaction. Major cities can pioneer this change, leading the charge toward more sustainable urban spaces. In turn this will shape national and global debates on the future of urban transport, blazing a trail toward a greener and healthier world.



Lapse Photo of man riding
a bicycle

Source: [pexels.com](https://www.pexels.com)

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It needs solutions. It needs change. It needs action!

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