

The world stands on the brink of historic change. The escalation of the climate crisis has brought us to a state of emergency that demands a bold response as highlighted in the recent Intergovernmental Panel on Climate Change (IPCC) special report on Global Warming.

Poor air quality in urban areas has become one of the major causes of illness and premature death worldwide.

These issues disproportionately affect the most vulnerable, the poorest, the elderly, women and children.

Transport is the fastest growing source of greenhouse gas emissions accounting for one-third of emissions in cities and up to 25% of harmful particulate matter in the air.

Rethinking how we move around our shared landscapes is central to the effort to combat emissions. From offering free public transport during rush hour and tax discounts to electric cars, to building green corridors through public cycling systems, introducing bus rapid transit systems, and expanding pedestrian only zones, decisive action is already making a difference.

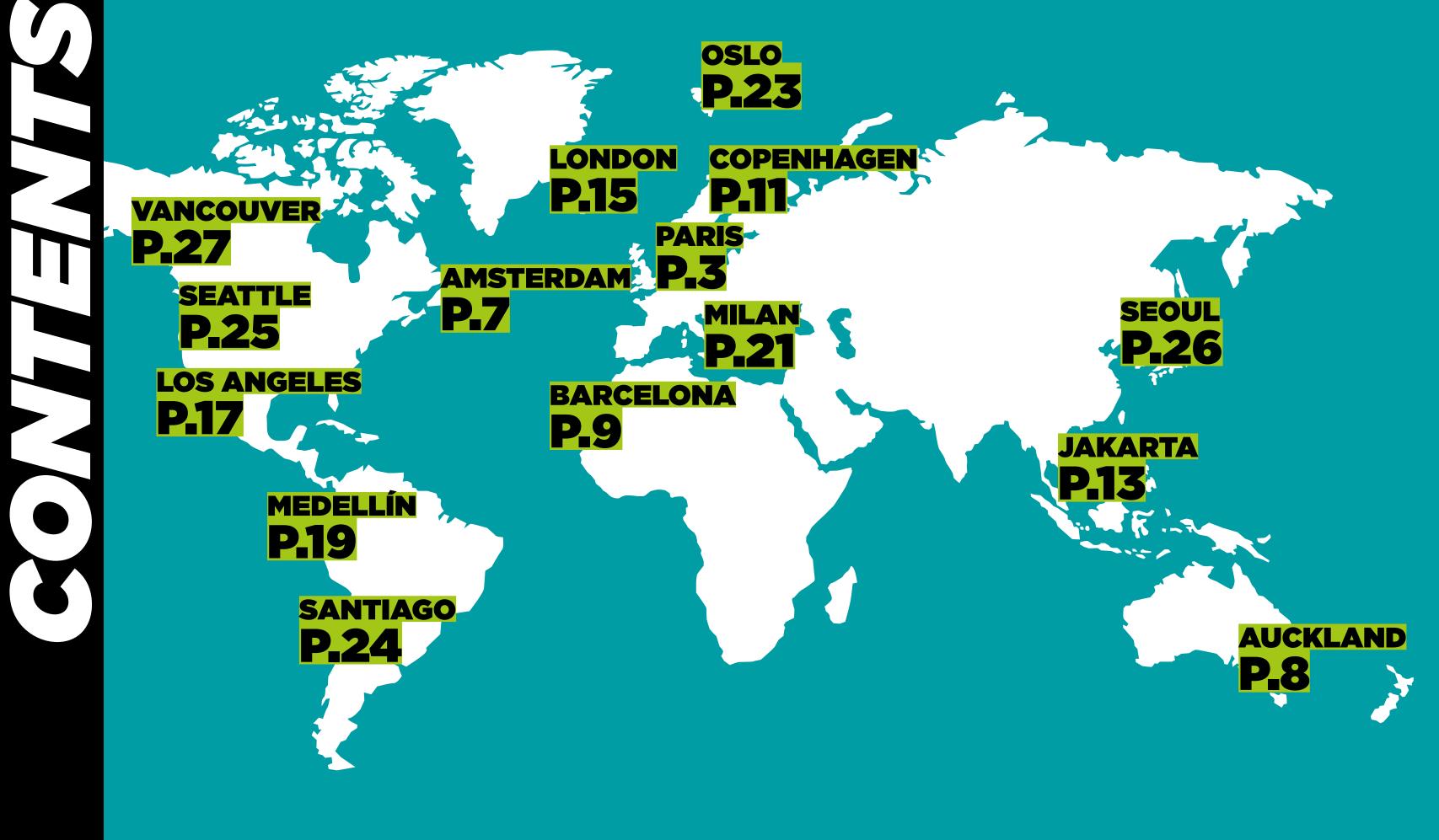
However, we need to go further.

More than 100 cities have already committed to develop Climate Action Plans consistent with the 1.5°C global warming target of the Paris Agreement.

More than 30 cities have already committed to the C40 Green and Healthy Streets Declaration, pledging to take transport actions by 2030 to achieve that ambition

The benefits of bold climate action in cities have an immediate, tangible impact on people's lives, from green jobs and growth, to active, healthier lives and cleaner air and water. Climate action will create the future we want. Together, we have the power to safeguard the future of our planet.

As mayors with a unifying mission to create positive change, we hope what you discover here will further inspire you to make your mark.



INTRODUCTION LETTERS P.4 **DECLARATION** P.5 WHAT NEXT P.28 OUR PARTNERS P.29

G Unparalleled challenges like climate change and air pollution require unprecedented action.

f Cities don't need a reminder of what a warming planet looks like - we see it every day.

The new policies implemented are based on the emergency of the existing health and climate crises.

As C40 mayors, we've started an urban revolution. This citizen-led movement looks at our city in a different way and moves towards a clean mobility system. This movement is happening in cities around the world, from Paris to Medellín, and Seoul to Los Angeles.

Unlike federal governments or private companies, city leaders have the power over urban spaces and can drive large-scale changes resulting in a clean transport revolution with fewer cars, and more municipal e-vehicle fleets and bicycle lanes.

The climate emergency is at the core of all these initiatives, and sharing ideas between cities. C4O's Deadline 2020 research has revealed precisely what cities need to do to deliver on the Paris Agreement. The short answer is that action needs to begin now, at full speed and large scale to tackle climate change.

The Green and Healthy (Fossil Fuel Free) Streets Declaration commits cities to the bold ambitious actions needed on transport.

To achieve that level of ambition cities need to share their knowledge on best policies, projects and approaches, so other cities to benefit from it and act without delay.



Aune Hidalgo

Anne Hidalgo Mayor of Paris and Chair of C40 Cities (2016-2019)

Eric Garcetti, Mayor of Los Angeles and incoming Chair of C40 Cities

We see it in our neighbourhoods, on our streets, on our hillsides, and in our own backyards.

For our communities and families, inaction is not a viable option. We must embrace bold actions and answers to this dire threat to our very survival.

Transportation is one of our planet's leading contributors to greenhouse gas emissions and air pollution. In my hometown of Los Angeles -- a city that has long been defined by a deep-seated car culture -- we are now driving the transition to a zero-emission transportation future.

The C40 Green and Healthy Streets Declaration is an example of how C40 Mayors are steering and accelerating a transportation renaissance in cities worldwide.

In this guidebook, you will find ways to bring the tangible impacts of that Declaration home. You'll see a wide range of sustainable transportation options to communities on the front lines of the climate crisis so that they get to reap the benefits of a more sustainable future first.

As mayors, we can't afford to wait for others to act. It's squarely in our interests and consistent with our values to build clean streets, create green jobs, and forge a more equitable, sustainable future for all. Together, I believe we can and will achieve our goals.'

C40 GREEN AND HEALTHY (FOSSIL FUEL FREE) STREETS DECLARATION

We pledge to transition to Fossil-Fuel-Free Streets by:

- Procuring, with our partners, only zero-emission buses from 2025; and
- -Ensuring a major area of our city is zero emission by 2030.

To meet this commitment, we will:

- -Transform our cities through people-friendly planning policies.
- Increase the rates of walking, cycling and the use of public and shared transport that is accessible to all citizens.
- -Reduce the number of polluting vehicles on our streets and transition away from vehicles powered by fossil fuels.
- Lead by example by procuring zero emission vehicles for our city fleets as quickly as possible.
- -Collaborate with suppliers, fleet operators and businesses to accelerate the shift to zero emissions vehicles and reduce vehicle miles in our cities.
- -Publicly report every two years on the progress the cities are making towards these goals.



C40 THE POWER TO MOVE THE WORLD

We have the power... TO CLEAN THE AIR

Affordability and availability are the cornerstones of Amsterdam's people-friendly approach to ensuring the city reaches its goal of being emission free by 2030.

The city is building on its existing Low Emission Zone policy by rolling out an ambitious air quality plan in phases, with an initial ban on older diesel vehicles due to start in 2020. A ban on non-electric buses, goods vehicles and taxis within the inner part of the city will follow in 2025.

Over the next few years, electric vehicles will become cost competitive with gasoline equivalents. Coupled with the emerging second-hand market in electric cars, greener alternatives will become an accessible option for more people.

With one of the densest charging networks in the world, Amsterdam has the capacity to offer owners of electric vehicles easy access to greener resources, with the knockon effect of encouraging greater adoption of clean transportation.

The city is also improving its freight system by introducing logistics hub systems to enable trucks to transfer freight to zero emission vehicles for the last mile of the journey.

'We will need a cultural and social shift'



FEMKE HALSEMA,

FEMKE HALSEMA SAYS:

'Currently, air pollution on average cuts more than one year off the life of residents and I am determined to change that.

As transport is an area where the city can control emissions sources, it makes sense to focus on this. Amsterdam is undergoing a vast growth in population and visitors between now and 2025, which presents challenges. However, Amsterdam has always been a city which embraces change: social change, cultural change and technological change. It will need a combination of all three to make the city's vision for emission free mobility a reality. We will need a cultural and social shift so that citizens are aware of the impact of their transport choices.

In addition to providing the right conditions for our citizens to switch to electric vehicles through infrastructure, incentives and subsidies, Amsterdam is continuing to build on our status as a cycling city by planning an expansion and improvement of the cycle routes. We also keep improving our public transportation network. The opening of the North/South Metro line last year is a good example for this.

I am under no illusion that the adoption and implementation of the plan will be an easy task. Collaboration and consultation to ensure that citizens and businesses are on board with transforming the city is important. We need to ensure that the right package of incentives and regulations are adopted to make the vision a reality.

Paris Agreement.

citizens.'



I believe that this is the worthwhile course of action to take as the plan will on average increase the lifespan of residents by approximately three months and set Amsterdam on a path to meeting its obligations under the

My advice to other cities is to set your goals high, but remember to be in constant dialogue with the city. Make sure your goals are accessible, affordable and supported by your

DID YOU KNOW...

Amsterdam has one the world's densest networks of electric vehicle charging points, with 2,500 points per million people, servicing five public electric vehicles on average with each charge point.

MAKING A DIFFERENCE

Amsterdam's Clean Air Action Plan has the potential to increase average life expectancy by three months by 2030.





We have the power... **TO CREATE**



PHIL GOFF. MAYOR OF AUCKLAND

'Clean transport is making our city a better place to live.'

CHOICE

Auckland is working hard to create a fast, clean, world-class transport system that offers transport choice to reduce car dependency and cut carbon emissions.

The city's transport agency, Auckland Transport, has already made

significant progress, rolling out a new bus network across the city along with improved timetabling and streamlined routes.

In February 2019, this new bus network increased the number of Aucklanders living within 500 metres of a rapid or frequent service by 163%, and an 11% increase in trips has already been recorded.

The introduction of electric trains, double-decker buses, more ferries, new stations and integrated ticketing - all focused on taking people where they want to go - has further accelerated the popularity of public transport in the city.

PHIL GOFF SAYS:

'A key part of Auckland Council's effort to mitigate climate change is reducing carbon emissions, of which transport emissions make up 47% in Auckland. We are investing at record levels in public transport, active transport and cleaner vehicles, so more people have sustainable transport options that don't require them to drive private vehicles.

We now have more busways and double-decker buses, electric trains and upgraded bus and train stations. Service hours have been extended and the HOP card and integrated fares have reduced costs and made public transport easier and more efficient to use.

More people are using public transport because it is a reliable and efficient way to get around Auckland.

This year, Aucklanders took 100 million journeys on buses, trains and ferriesour biggest year for public transport since 1951, when we still had trams.

As well as its emissions reduction benefits, increasing public transport use helps reduce traffic congestion on our roads, making it easier and faster to get around for people who do choose to drive.

There's much more we need to do, and those changes are coming. The \$28 billion of investment through the 2018 Auckland Transport Alignment Project will further develop our transport network, delivering more stations and busways, rapid transit from the city centre to the airport and its employment precinct and increased ferry services. The City Rail Link is well underway and when completed will double the rail network's capacity and reduce travel times into and through our city.

We're working with the government to bring forward the conversion of our bus fleet to electric and hydrogen, and to increase the number of electric vehicles on our roads, and from 2020 the council will only purchase electric or hybrid passenger vehicles.

Clean transport is key to tackling our climate change and environmental challenges, as well as making our city a better place to live. We've taken Auckland from a city totally tied to the car to one that is embracing the use of public transport as well as walking and bike riding. I look forward to continuing this work in the future.'





PUBLIC TRANSPORT USE IS GROWING FOUR TIMES FASTER THAN THE RATE OF POPULATION GROWTH IN AUCKLAND

DID YOU KNOW...

From 2015-2018 Auckland revamped its entire bus network, redesigning the system to provide a more streamlined service with higher frequencies.

\rightarrow WHAT NEXT?

- Auckland Transport launched a Low Emission Bus
- Roadmap and is trialling electric buses with a view to
- procuring only zero-emission buses from 2025, and
- achieving a full zero-emission bus fleet by 2040.

We have the power... **TO REIMAGINE** PUBLIC SPACES green streets, this progressive system of compact and connected neighbourhoods not only builds social cohesion and improves the city's health

A participatory approach to structural change has enabled Barcelona to deliver a solution that has been embraced by its people.

 $\mathbf{200}$ **DAYS OF EXTRA ADULT LIFE EXPECTANCY** FROM SUPER BLOCKS

Improving the health and wellbeing of its citizens, while simultaneously reducing the environmental impact of car pollution, have been the driving forces of Barcelona's innovative urban and transport programme of Superblocks.

Designed to promote active lifestyles and sustainable mobility, the Superblocks enable the city to reclaim vast tracts of public space for leisure, culture and community activities.

Three Superblock areas have already proved a success, with six more under construction, and long term plans for the blocks to be expanded to serve all of the city's 1.6 million residents.

By restricting traffic to basic streets, and avoiding traffic in the by placing people front and centre, it reduces car traffic and pollution, while encouraging greater use of public transit and cycling.

ADA COLAU SAYS:

'The fight against climate change and pollution cannot be delayed. The climate emergency is already a reality and we must all face it with courageous and ambitious proposals that prioritize people and health.

When I was elected in 2015, implementing a new urban model that gave precedence to health was the centrepiece of my sustainable mobility plan in Barcelona. Within the city cars are used for only around a quarter of journeys but they take up 60% of public space and are responsible for around 80% of urban pollution.

The "radical" idea of the superblock is a means to put people first, rather than vehicles, in the public space. Superblocks unite urban planning with mobility and limit the presence of private vehicles in order to give back public space to the citizens.

They are an answer for the city's lack of green spaces, high levels of pollution, noise pollution, accident rates and physical inactivity.

The cultural and structural shift away from a city dominated by motor vehicles is not an easy journey. A participatory process that involves listening to all citizens has been crucial in guaranteeing the success of the superblocks.

Furthermore, in order to improve the quality of life of all citizens, we need to implement other complementary interventions in addition to the superblocks. This is why we have made sure that public social housing has increased alongside them.

I truly believe that public space brings people together. This is essential for the health of a city. A recent study carried out by the Barcelona Institute for Global Health (ISGlobal) calculates that the city could prevent 667 premature deaths every year if we create all 503 superblocks envisaged in our initial plan.

We plan to implement the superblock approach for the whole city over the coming years. Reclaiming space for people and raising awareness of the importance of sustainable living is vital in the fight against climate change. My advice to other mayors would be to listen and engage with citizens and communities. Do not be afraid of trying new things in the city. It is time to apply a paradigm shift in our cities towards a people-centered approach.



When the programme is complete, the superblocks will convert 70% of the city's streets to pedestrian and cyclist priority, restricting vehicle traffic to access only with a 10 kph (6mph) speed limit.

MAKING A DIFFERENCE

An estimated 667 premature deaths could be prevented annually through the whole Superblock system, which has the potential to increase average adult life expectancy by 200 days, saving the city €1.7bn a year.



Barcelona has a long term strategy to expand the Superblocks across the whole of the city.



'Reclaiming space for people is vital in the fight against climate change.'



ADA COLAU, MAYOR OF BARCELONA

DID YOU KNOW?



C40 THE POWER TO MOVE THE WORLD

We have the power... **TO CREATE A CYCLING** CULTURE

Known as one of the greenest cities in the world, Copenhagen is raising the bar by aspiring to be the world's first carbon neutral capital by 2025.

The city has taken several steps towards reducing CO₂ emissions but galvanising political will and investing in transport are enabling Copenhagen to go further still, with plans to expand its worldrenowned cycling network and electrify the city's buses and ferries.

In total the citizens of Copenhagen already cycle on average 1.44 million km per day, thanks to an extensive network of cycling lanes and prioritising of cycling safety in transportation infrastructure that makes cycling the preferred mode of travel.

Phasing out diesel buses will build on efforts to achieve the zero emission target, with plans to replace all buses and ferries with electric alternatives by 2025. The city is also working for changes in national regulation to set

stricter environmental requirements for cars, so the old, polluting diesel cars can be phased out.

Optimising public transport plays an equally vital role, and in September 2019, the new Metro City Circle Line was opened with 17 new stations, marking the largest infrastructure project the city has ever seen, offering passengers a faster, more efficient service, and encouraging more to switch to public transit.

FRANK JENSEN SAYS:

'In Copenhagen we insist on green solutions because they pay off. Copenhagen's green transformation goes hand in hand with job creation, economic growth and a better quality of life. Battling air pollution is a great example. Since the rise of modern urban cities it has been a common truth that city air is polluted air. In Copenhagen we want that to change.

The green transition has required political decisions and investments and continues to do so. We are committed to becoming carbon-neutral with a green transition of our energy production, energy consumption and transport, and I think we are well on our way.



'We insist on green solutions because they pay off.'

But more can be done, especially when it comes to the transport sector which requires a rapid shift from both diesel and petrol vehicles, to low and zero emission vehicles. That is why we have set the target that all the city's buses should be zero emission by 2025 and introduced green transportation demands for the municipality's procurement.

And we are also considering other new initiatives to deter vehicle pollution. I would like us to have stricter environmental requirements for cars, so we eventually completely phase out diesel in Copenhagen, or at least the oldest and most polluting diesel cars, but this requires a change in national regulation.

One of my highest priorities is that Copenhagen continues to be a liveable city even when more and more people are moving to the city. And I think that our cycling culture is a key element in ensuring a liveable city in the years to come. In Copenhagen there are 382 km of segregated bicycle tracks. 63 km of Green Cycle Routes and 13 car-free cycling bridges have been constructed in the past six years, providing cyclists with a convenient way to navigate across the rivers, canals and busy roads in the city.

49% of all who work and study in Copenhagen go by bike. I am very proud of this fact, but we want to do more. We are therefore continuing to expand and improve the cycle network in Copenhagen and beyond. To ensure attractive cycling conditions on longer commuter trips across the municipal border, we collaborate with 26 neighbouring municipalities to construct a total of 45 cycle superhighways, covering 750 km in the Greater Copenhagen region. In combination with restrictions for cars, we have achieved a safer and cleaner city in Copenhagen.

I think it is important that we use Copenhagen's position as a green leader to inspire others. Copenhagen's replacement of the city buses to zero emission buses and our cycling culture could be copied in other cities. By sharing our green solutions, we can go from great solutions locally to brilliant advances globally."





FRANK JENSEN

49% OF ALL WHO WORK AND STUDY **GO BY BIKE**

MAKING A DIFFERENCE

A 10% increase in cycling would lead to 109,000 fewer annual sick days and 6% less congestion, generating annual benefits of DKK 651 million.

\rightarrow WHAT NEXT?

Copenhagen will further expand bicvcle infrastructure with new and wider bicycle tracks, regional cycle superhighways, green cycle routes and more bicycle parking.

OF JAKARTA'S RESIDENTS WILL BE WITHIN 500M OF PUBLIC TRANSPORT BY 2022



We have the power.... TO FIX TRANSPORT SYSTEMS

Creating a transport system that works in the interests of public and private stakeholders has led to a more efficient network used by more passengers.

Since its introduction in 2004. Jakarta's first ever Bus Rapid Transit (BRT) system, TransJakarta, has grown in popularity, and is used by an increasing number of passengers who have seen the value and the benefits of public transport over private vehicles.

To resolve competition between existing private minibus operators, the city ensured that private bus drivers and operators are paid per mile by TransJakarta to operate the service. Passengers are given a fair deal through a contactless payment system allowing unlimited travel across minivans, buses, BRT and light rail for three hours, for a flat fare.

Now, as the city prepares to welcome its first Metropolitan Rapid Transit system, Jakarta is further improving the BRT to integrate operations and ensure the systems complement each other.

Its aim is for 95% of citizens to live within 500 metres of public transport by 2022.



ANIES BASWEDAN. GOVERNOR OF JAKARTA

'We see Jakarta becoming a world leader in sustainable transport.'

ANIES BASWEDAN SAYS:

'Jakarta faces significant air quality problems with vehicular pollution one of the leading causes of this. In Jakarta today 75% of people use personal transportation and just 25% use public transport. We want to reverse these percentages and help solve Jakarta's air pollution problems. A reliable, integrated and well connected public transport network is crucial to achieving this.

One of the biggest challenges we have faced as a city has been bringing together all the informal transit operators to create an integrated system that works for the city. Historically the system worked with private operators of buses and minivans receiving fares directly from passengers. This led to an inefficient system of multiple vehicles competing along similar routes for the same passengers and conflict between the publicly run BRT network and the private informal transport systems. With the plans for expansion of the BRT network and the construction of the Mass Rapid Transit (MRT) and Light Rail Transit (LRT) network this was clearly not a sustainable system.

Through careful negotiation with the multiple operators of minivans INTEGRATED and buses, we were able to move away from this system to one where operators are paid to operate services SYSTEM rather than to chase passengers. TRANSJAKARTA The Jak Lingko card, valid across all of TransJakarta services allows HAS REDUCED people to use minibus and private bus companies and transfer seamlessly THE COST OF onto BRT and MRT services. We are proud that this has reduced the cost TRANSPORT to passengers from 30% of income to 10% of income, that Transjakarta **FROM 30% OF** ridership has doubled in the past two years and that Jakarta saw the biggest **A PASSENGER'S** decline in congestion across 400 world cities. **INCOME TO** Our vision is to transform Jakarta **JUST 10%** away from a traffic dominated,

congested and polluted city to a world leader in public and sustainable transport, where residents and visitors feel that using public transport is safe, sustainable and comfortable. Our advice to other city leaders is to set a clear and ambitious vision and to work with people and organisations in the city to find common interests to make it a reality.'

DID YOU KNOW...

\rightarrow WHAT NEXT?

Jakarta is creating 2,600 km of pavement for pedestrians; expanding its metro system with the extension of the existing line due to open in 2024 and a new East-West line under construction. It also plans to electrify 50% of the bus fleet by 2025.



Transjakarta has become the longest BRT in the world and now boasts a daily ridership of 800,000 people.



TODAY ALL NEW BLACK TAXIS IN LONDON MUST BE ZERO EMISSION CABABLE 5



LM67 YTO

:40 THE POWER TO MOVE THE WORLD

We have the power... **TO CLEAN UP** FLETS Building on the success of the Congestion Charge and the citywide Low Emission Zone, London was the

London is on a mission to create a zero carbon city by 2050 by taking pioneering steps towards reducing air pollution.

63% **FEWER OLDER, MORE** POLLUTING VEHICLES PER DAY **SINCE THE ULEZ WAS ANNOUNCED**



first city in the world to introduce an Ultra Low Emission Zone (ULEZ). Operating in the centre of the city 24 hours, seven days a week, the ULEZ requires all vehicles to meet strict emissions standards when driving in central London or to pay an additional daily charge in order to do so.

Taxis and buses must follow additional hybrid or electric rules, and to help those under financial pressure, the city has introduced a scrappage scheme that allows businesses, charities and low income residents to do their bit.

In 2020 London is expanding the ULEZ standards city wide for trucks, buses and coaches and has bold plans for an 18-fold increase in the size of the ULEZ for cars, vans and motorcycles from 2021.

SADIQ KHAN SAYS:

'Air pollution is a silent killer around the world – from London and Los Angeles, to Paris, Beijing and Delhi. The World Health Organization has rightly described it as a 'global public health emergency'. This is not merely rhetoric, but an inescapable reality that demands urgent action.

Over 2 million Londoners live in areas that exceed legal limits for nitrogen dioxide, of which over 400,000 are children under the age of 18.

The situation is so bad that children are growing up with stunted lungs - a depressing reality mirrored in many cities around the world.

This is also an issue of social justice - with the poorest people often suffering the worst impacts of air pollution, despite driving the fewest cars.

We know that traffic emissions are the biggest source of air pollution in many cities. As Mayor of London, I'm not willing to turn a blind eye to children breathing toxic air and we all know the urgency of tackling the climate emergency. That's why my administration is pushing ahead with some of the boldest and most ambitious plans to tackle air pollution and climate change of any major city in the world.

We are cleaning up our bus and taxi fleets and taking targeted action around nurseries, schools and hospitals. And we have introduced the ULEZ - a world first - which sets the toughest emission standards of any global city.

The ULEZ is enforced 24 hours a day, seven days a week, incentivising Londoners to get out of their cars and onto public transport, walk or cycle, or drive cleaner vehicles. As a result of my ambitious plans, it has now been estimated that London will come into compliance with legal air pollution limits within six years, compared to

The introduction of the ULEZ has been successful, but it's not always been easy. There have been major challenges to overcome. One thing that was critical was ensuring that we built public support and understanding of the scheme. Throughout the process we held major consultations, listened to public feedback and repeatedly explained who would be affected and why the ULEZ was so important - including through major marketing and social media campaigns.

world.'



'This is an issue of social justice'

193 years without our policies. The ULEZ will also contribute to tackling the climate emergency.

Another challenge was ensuring that Londoners who needed it had support to buy cleaner cars. We did this by introducing a scrappage scheme to enable microbusinesses and charities to scrap polluting vans and minibuses and switch to cleaner vehicles. And we have also set up a £25 million fund to help lower-income households.

At a time when there is rightly mounting public pressure on politicians to do more to tackle environmental challenges, it's important that cities continue to learn from each other. I welcome the opportunity to share the blueprint we have set out in London with other leaders and policymakers around the

SADIQ KHAN. AYOR OF LONDON



DID YOU KNOW?

With licencing rules, rapid charge points and funding support for the industry, London already has over 2.300 zero emission capable black cabs operating on the streets.

MAKING A DIFFERENCE

The first month of ULEZ saw a 20% reduction in harmful nitrogen dioxide concentrations by the roadside.

\rightarrow WHAT NEXT?

London aims for 80% of trips to be made by public transport, walking and cycling by 2041.



We have the power... TO INSPIRE A TRANSPORT RENAISSANCE



ERIC GARCETTI,

When Angelenos called for more affordable housing, a robust public transit system and greater support for the homeless, the city responded.

'Angelenos want a city with affordable housing and improved transportation'

Los Angeles has affirmed its commitment to create an inclusive. transit-oriented vision for the City. boosted by a multi-billion dollar investment plan.

The LA County Traffic Improvement Plan. otherwise known as Measure M, is a key part of that plan. It was made possible by a historic coalition of political, business, labour. transportation, environmental and social justice leaders - whose transit and funding plans were approved by a public vote.

By generating local funding, Measure M has allowed LA to take control of its transportation future with a halfcent sales tax that equates to \$24 per resident per year, yet will raise \$120 billion in the first 40 years to fund 15 new and expanded rapid transport lines across the region. Funding will also be directed to cycle and pedestrian improvements, transit fare subsidies and transit operations.

The Transit Oriented Communities programme, created by the Department of City Planning was also approved by ballot, with a 65% vote in favour of incentivising developers to build affordable and low-income housing near major transit hubs, proving how people-friendly policies can influence prosperity and equality.

'Angelenos want a city with affordable housing and improved transportation so every family can make their rent payments, every resident can get to work and school with ease, and every individual can access opportunity and prosperity no matter where they live.

Realising that vision in L.A., or any city around the world, will require us to work together in the spirit of trust, transparency, and fairness - with an unyielding commitment to innovation and environmental justice.'





ERIC GARCETTI SAYS:

DID YOU KNOW...

In 2017 LA launched an electric carsharing service with discounts for lower-income families who can't afford eco-friendly cars.

MAKING A DIFFERENCE

Since 2017, more than 16,000 units, including more than 3,000 affordable units, have been proposed. In 2018, 30% of all housing units proposed in the city were filed under this programme, and nearly half of all affordable housing units.

\rightarrow WHAT NEXT?

Working with partners at LA Metro, the City aims to electrify 100% of its buses by 2030.







We have the power... TO MAKE PEOPLE PROUD

By creating an integrated transit network and co-opting citizens into helping with its management, Medellín has created a public transport system that changes the way people think about their city.

The city boasts two Metro lines, five cable car lines (known as the Metrocable), a Bus Rapid Transit line and its first tramline, opened in 2016.

Not only has this interconnected system helped to transform Medellín into a modern city with a strong focus on sustainable mobility, it has provided vital connections for people from low income informal settlements in the mountainous outskirts.

The Metro Culture – a social, educational and cultural management program that accompanied the construction – has enabled the people of Medellín to play a pivotal role in the project's success, ensuring it is well maintained and widely used.

'Put people and communities first in planning transport'





FEDERICO GUTIÉRREZ SAYS:

'In the early 90s Medellín was known as one of the most violent cities on earth. We have progressed a very long way and transformed the city since those dark days, but there is still a lot of work to do. I want Medellín to be the leading city in Latin America for sustainable mobility, a title that all citizens of Medellín could be proud of. Sustainable transport systems are vital to a thriving city. It is often the poorest in society who end up having to spend the most time and money in travelling for school, work and shopping. This is why the extension of the Metrocable system and the creation of an integrated transit network in the city has been so important. Reducing this inequality is key to building trust in citizens and transport can be a powerful tool in achieving this. The Metro Culture is a product of this trust and respect, citizens are proud of the public transport system they have in the city and so work together to keep

Whilst we have achieved a lot, we cannot stand still. As Medellín is in a valley air pollution can be a big problem for the city and there is a need to reduce carbon emissions to help fight against the climate crisis. This is why we have started the process of investing in electric buses and taxis and redesign the city centre to make it more people friendly. Our ambition is for the whole of the city's transport to be electric and that the city can be an example to other cities in Latin America and around the world.

it a pleasant experience.

There is no magic formula to Medellín's success, but the advice I would give to other mayors looking to develop sustainable mobility is to put people and communities first in planning transport. This is something I have tried to do in my tenure as mayor, reaching out to people and involving communities in the design of urban space and the extension of the public transit system. Trust and partnership are key to developing a sustainable system that works for all.'





DID YOU KNOW...

The Metrocable is the world's first cable car system to have been designed as a mass transit solution for the urban poor.

MAKING A DIFFERENCE

In 2019, Medellín won the Ashden Award for the 30 Green Corridor project, which introduced new green space and 125 km of cycle infrastructure along transport corridors, helping to reduce urban temperatures by more than 2°C.

\rightarrow WHAT NEXT?

Medellín is on course to have the second largest electric bus fleet in Latin America after the first delivery of 65 new electric buses arrived on the streets this year. Over 200 electric taxis will join the city fleet from 2020.



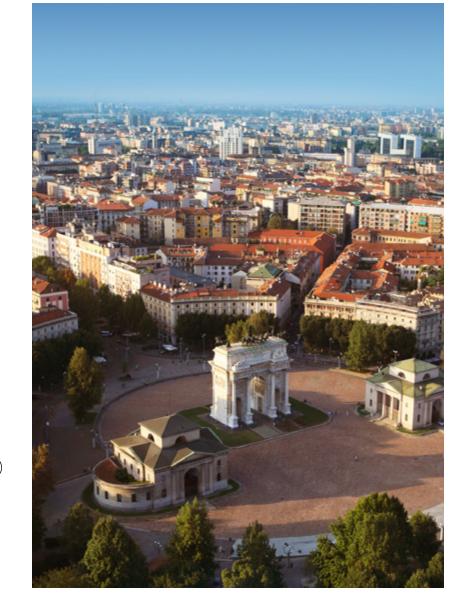
We have the power... TO EXCEED EXPECTATIONS

As of 2020, Milan's transit agency will only buy electric buses, putting the city 5 years ahead of its own pledge to transform its fleet.

Since 2012, Milan has operated a congestion pricing zone, 'Area C' in the inner core. In February 2019, Milan launched 'Area B', the largest Limited Traffic Zone in Italy and one of the largest Low Emission Zones in Europe placing ambitious restrictions on older petrol and diesel vehicles permitted to enter Milan. Public transportation is also being revised, including the restructuring of all depots belonging to ATM (Azienda Trasporti Milanesi), which manages public transport in the Lombard capital and in 46 provincial towns. Three new innovative structures are to be constructed and, as of 2020, ATM will only buy electric buses.

Less than a year since introducing its Sustainable Urban Mobility Plan, Milan has made great strides in its ten-year vision for reshaping how people and vehicles move through the city.

95% **OF THE MILANESI LIVE WITHIN** AREA B, BENEFITTING **FROM THE** LIMITATIONS ON PETROL AND DIESEL VEHICLES AND IMPROVED AIR QUALITY.



GIUSEPPE SALA SAYS:

The vision for urban development in Milan is to build a growing city and offer accommodation to young people, the elderly and those in difficulty. We aim to spread the use of an increasingly integrated and environment-friendly transport system. We are investing today in a city to live, work and raise children.'





'Transport is one of the cornerstones on which we build the future of our city. A high quality public transport system is one of the most powerful means to improve the climate and the air we breathe in our city. The more we use all means of public transport, the less we will pollute and the fewer cars will come into the city every day. This is a very important result that places our city among the most advanced in the international arena.

We're working on different fronts to improve Milan's air quality. Our goal is to free the city of diesel vehicles by 2030, starting with Area B this year. Over the next seven years, our subsidiary public transport company has agreed to invest 2 billion euros to replace all existing buses with electrical ones. We're also supporting car and bicycle sharing and we're completing underground railway line to connect Linate Airport to the city.

'Free the city of diesel vehicles.'

MAKING A DIFFERENCE

Replacing diesel buses with 1,200 electric vehicles by 2030 will reduce diesel consumption by 30 million litres per year and decrease CO₂ emissions by 75,000 tons per year.



Each year Milan will tighten vehicle emissions standards in Area B. By 2030, all diesel vehicles will be banned from the city.



GIUSEPPE SALA IAYOR OF MILAI

60% of new car sales in oslo are ELECTRIC



We have the power... TO STEER AN ELECTRIC REVOLUTION

Oslo is at the helm of a cultural shift towards fossil fuel free transportation, helping to return large areas of the city back to the public.



'Vehicles will need to be emission free.'

A car-free liveability programme and a climate and energy strategy are among the measures that are helping to transform Oslo into a greener city.

Today, more electric cars are sold in Oslo than fossil fuel engines, a transition that has been propelled by a range of policies that are encouraging people to use cleaner vehicles. From reduced toll charges and tax discounts for electric cars, to an exemption from value-added tax, Oslo is incentivising its citizens with budget and climate friendly pricing that brings electric vehicles into price parity with petrol and diesel vehicles.

The owners of electric cars also benefit from free parking and access to bus lanes, which has the added benefit of reducing traffic congestion and saving passengers' time on their commute.

Discouraging the use of diesel-fuelled vehicles has played an equal role in changing Oslo's transportation network.

This has included higher road tolls and heavy taxes on diesel-fuelled vehicles. While a 5% increase in public transport capacity and low fares have made public transportation cost competitive.

To entice people to cycle instead of drive, parking spaces have been reclaimed to create more cycle lanes, providing a safe and attractive alternative that should take Oslo even further along its green trajectory.

RAYMOND JOHANSEN SAYS:

'In Oslo, we are aiming to reduce our CO₂ emissions by 95% by 2030. This is anchored in a very ambitious climate strategy.

More than half of Oslo's greenhouse gas emissions arise from cars and trucks. For the city to achieve its zero emission goal - and for us to meet our climate goal - most vehicles will need to be emission free.

We aim to reduce overall car traffic by a third, compared to 2015. To succeed, we will continue to step up investments in public transport, bicycle paths and pedestrian walkways.

More and more people in Oslo choose public transport instead of cars. By making it easier to choose emission free public transportation we can achieve a rapid shift to zero-emission mobility.

We will continue our efforts to make the greenest travel option the most attractive one in Oslo.'

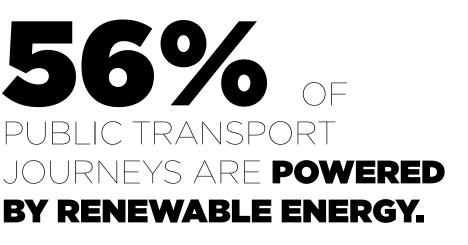
Today, 60% of new cars sold in Oslo are electric.

\rightarrow WHAT NEXT?

Oslo is considering a science-based report on how it could achieve a zero-emission city by 2030. This will shape new policies for mobility in freight services and waste management.

RAYMOND JOHANSEN, OVERNING MAYOR OF OSL







DID YOU KNOW...

MAKING A DIFFERENCE

56% of all public transport journeys are powered by renewable energy. Oslo has a goal of delivering a fossilfuel-free public transport fleet by 2020.

We have the power... TOEXPAND THE MARKET

With plans to have 400 electric buses and 104 electric charge points on the streets by the end of 2019, the Metropolitan Region of Santiago is on course to become a global leader in green transportation. The city is working to promote electric mobility to citizens across its 52 municipalities. The initiative echoes national policy and will see 104 public electric charging points installed.

Funding has also been committed to upgrading all municipal service fleets to electric vehicles, at the same time that national government and RED, the agency responsible for operating Santiago's bus network, have committed to upgrading the city bus fleet to electric vehicles.



ELECTRIC BUSES COST 70% LESS TO OPERATE IN SANTIAGO.

KARLA RUBILAR SAYS:

'Air pollution is a severe challenge for quality of life in Santiago and I am determined to change this by promoting a more sustainable region. Santiago is already one of the world's leading cities for electric buses, but more can be done for other fleets. My goal is for a transition towards Fossil-Fuel-Free Streets, following two paths: First new electric buses, gathering efforts from different governmental institutions, procuring only zero-emission buses by 2025; and second with the support from the Metropolitan Regional Government, we aim for the complete transformation of the municipal vehicle fleets to electric in the next few years in the Metropolitan Region of Santiago.

available for all of Santiago to benefit
from, not just areas that are profitable.
Electric mobility also offers a great
opportunity for new regional investors
in the transport market.
Electric mobility is a key part in my
wider vision for a clean air, fossil fuel
free city that includes growing the
public transport network so that more
regions are connected and developing
infrastructure or the use of bicycles
and other forms of transport that will
provide the inhabitants of Santiago
with easy alternatives to the car.

My advice to other mayors would be that collaboration with partners is key to delivering the transformative change that is needed. Thanks to C40 we have progressed in that line.'

As well has helping to reduce emissions from transport, electric vehicles are far more energy efficient and can help reduce our city and our nation's dependence on petroleum imports.

The Formula E race in Santiago was the ideal opportunity for me to launch my vision for electric mobility in the region. Thanks to President Piñera's commitment to fighting climate change and private investors, Santiago already has one of the largest electric bus fleets in the world and I want to extend this electro-mobility revolution to municipal and citizen fleets, ensuring that all 52 communes in the Santiago region can benefit.

Attracting inward investment into the region has been a key challenge for me as Governor. The public private partnership for the delivery of the charging stations been a crucial means of achieving this and ensuring that the upfront investment is available for all of Santiago to benefit from, not just areas that are profitable. Electric mobility also offers a great opportunity for new regional investors in the transport market.



DID YOU KNOW...

Santiago has one of the largest electric bus fleets in the world outside of China.

MAKING A DIFFERENCE

Each electric bus saves up to 60 tonnes of CO_2 per year and costs 70% less to operate.

\rightarrow WHAT NEXT?

In the next few years Santiago aims for the total transformation of the municipal vehicle fleets to electric.



KARLA RUBILAR, GOVERNOR OF SANTIAGO

'Electric vehicles are far more energy efficient.'

We have the power... TO REDUCE SINGLE OCCUPANCY TRIPS

JENNY DURKAN SAYS:

'Climate change is one of the gravest threats we face. We can reinvent our approach to transportation while also reducing carbon pollution by building an equitable future with fewer cars, more transit, and less pollution.

We're investing more in housing near transit, electrifying buses, and other shared mobility, and increasing access to safe pedestrian and bike infrastructure.

We must ensure people have access to reliable, efficient, and equitable transit options, so that our streets as well as our air and water, stay unclogged.

Our goal is to reduce singleoccupancy trips among drivers who can switch to transit. Seattle leads the nation in the growth of transit ridership. One critical aspect of this is expanding access to transit for all our communities.

For those we need their vehicles, we should aim to make environmentally conscious transportation options desirable and feasible. That's why we're investing in electric vehicle infrastructure and reducing the economic barriers that electrification can create.

Ultimately, we know that the communities hit the hardest by climate change are most often our historically under-served communities of color and as we develop and implement new policies, we must continue to revaluate the race and social justice impacts. Reliable, safe transit is such backbone in people's lives. Expanding access to comprehensive transit and transportation projects not only helps us meet our climate goals, but it also ensures that our communities can truly thrive.'

Reducing congestion and transportation emissions are key priorities for Mayor Jenny Durkan and the City of Seattle. Greater investment in public transit systems have improved mobility in areas of the city that previously had limited access.

Unprecedented investments have been directed towards affordable housing near transit routes, while new legislation ensures that all new or renovated buildings that include parking will provide electric vehicle infrastructure powered by the country's greenest utility. And Mayor Durkan has committed the City to evaluating the equitable implementation of congestion pricing as a key strategy to reduce congestion and address emissions.

A comprehensive strategy is delivering efficiencies across every level of society and city infrastructure, placing Seattle at the forefront of positive climate action in the United States.

Under its Climate Action Plan. Seattle has committed to reducing the City's vehicle fleet by the end of 2020, and to making the entire fleet fossil fuel-free by 2040. The Plan further stipulates that all future vehicle replacements should be the most cost effective, and of the lowest engine displacement.

Externally, the City is working with transportation, delivery services and school district partners to electrify vehicles, buses, and taxis in Seattle.





SEATTA

JENNY DURKAN,

'Fewer cars, more transit and less pollution'

DID YOU KNOW...

City departments pool transportation and share fleet resources, while employees are encouraged to switch from single-occupancy rides to walking, cycling, or transit.

MAKING A DIFFERENCE

Mayor Durkan's ORCA Opportunity program provides free, year-round transit passes to 15,000 Seattle Public Schools high school students, more than 300 Seattle Promise college students, and to 1,500 of the City's low-income residents.

\rightarrow WHAT NEXT?

At Mayor Durkan's direction, the Seattle Department of Transportation continues to study the potential for the equitable implementation of congestion pricing in Seattle as a key way to address congestion and combat climate change.

We have the power... TO COLLABORATE

Collaboration has been key to Seoul's success in implementing ambitious strategies to reduce climate emissions and improve air quality.

Legislative measures and

environmentally friendly policies have set the pace of progress in Seoul since 2012 when the city banned old diesel vehicles weighing over 2.5 tons that lacked diesel particulate filters. This Low Emission Zone remains in force and is today patrolled by some 100 CCTVs at 51 locations.

Its success has led to the expansion of the scheme to cover the entire Seoul metropolitan area, a scheme that is jointly enforced via a cooperative agreement with the Ministry of Environment. Incheon City and Gyeonggi Province.

Citizens are encouraged to choose greener alternatives by using cycling paths and pedestrian-only zones, while diesel buses have been replaced with natural gas and electric vehicles, and subsidies are offered to car owners who use emission-reducing devices.

In 2017, Mayor Park Won Soon made public transit free during rush hour on days when levels of particulate matter ran high. This action has led the state government to enact the Special Act

on the Management of Fine Dust and introduce the eco-friendly car rating system which assigns a grade to vehicles according to their emissions. Grade-5 vehicles (dirtiest cars) are banned from the city centre when Seoul's emergency fine dust reduction measures are enforced.





'Tackling vehicle emissions is a priority.

success."



PARK WON-SOON SAYS:

'Tackling vehicle emissions is a priority if you are to tackle air pollution in your city. As cities made significant contributions toward the adoption of the Paris Agreement, the concerted effort shown by cities today to tackle air pollution will make air cleaner for our citizens to breathe.

We have learned the hard way that, when it comes to climate breakdown, national governments cannot solve the problem on their own. Or better put: a president talks about the principles, but a mayor collects the garbage.

My priority is to work towards greater solidarity and strength by broadening the range of actors represented in the discussions on climate issues. In Seoul, we have already benefited from policy information exchanges and joint initiatives with cities such as Paris and London and we plan to increase that collaboration, for example with the East Asia Clean Air Cities.

Climate change and air pollution cannot be settled single-handedly. Working together is key to our



DID YOU KNOW...

25,000 public bikes have been made available in the city.

MAKING A DIFFERENCE

Seoul is on target to deploy 2,720 electric buses by 2025. 29 are already in place with the number expected to reach 100 by the end of the year.

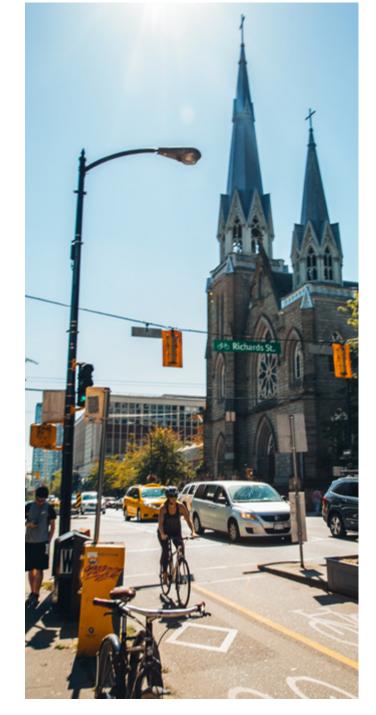
\rightarrow WHAT NEXT?

In July 2019, Seoul introduced a sixmonth pilot, designating 16.7km² as a Green Transportation Space with more stringent Low Emissions Zone standards as well as cycle and pedestrian paths and green space. Grade-5 vehicles are banned from entering the city centre from 9 am to 9 pm every day, all year round, with fines for those who breach the ban.

We have the power... **BIG MOVES**

Encouraging people to take the sustainable route has been at the heart of Vancouver's climate action plans, delivered with the support of key partners.

BY 2030, 50% OF **KILOMETRES DRIVEN ON VANCOUVER'S ROADS WILL BE BY ZERO EMISSION VEHICLES.**



In January 2019 Vancouver became the first city in Canada to declare a climate emergency, which was accompanied by ambitious plans to reduce carbon pollution, improve energy efficiency, and transition to renewable energy.

This latest plan builds on Vancouver's previous commitment to improve the city's green credentials, and outlines six key areas of concern. These include two thirds of trips in Vancouver to be made by walking, cycling or public transit by 2030, and 50% vehicle kilometres travelled on Vancouver's roads to be in zero emission vehicles.

The city's active transport network will also be extended, e-bikes will be introduced to the city's public bike share system, and an electric vehicle charging network will be introduced to incentivise people to make the switch. Proposals for a new zero emission zone are also underway.

KENNEDY STEWART SAYS

'Climate change has long been an issue that the City of Vancouver has been committed to taking action on.

Encouraging more people to use transit, as well as walking and cycling. is one of the main areas where cities can make a key difference. Provision of good quality, affordable transit is vital to helping cities reduce emissions.

To that end we are working in partnership with TransLink to expand Vancouver's bus network, including changes to reduce journey times and improve reliability. We are also working with our partners in the region and across all levels of government to deliver Vancouver's Skytrain extension, a vital transit improvement needed for the city.

'Walkable, sustainable neighbourhoods help fight climate change.'

The City Council has recently declared a climate emergency and one of our key goals is to have twothirds of trips in Vancouver by active transportation and transit by 2030.

I strongly believe that ensuring that neighbourhoods are walkable is just as important as developing mass transit. Walkable, sustainable neighbourhoods keep cities vibrant and help fight climate change. That is why another of our key Climate Emergency goals is for 90% of residents to live within an easy walk or roll of their daily needs. If every city in the world was designed first with complete communities we would be a lot closer to meeting global emissions targets.

I was pleased that our politically diverse City Council voted to declare a climate emergency. But I was even more proud that we also approved a plan to take action - because while declarations are important, it's going to take a bold action plan to truly drive change.'





KENNEDY STEWART

DID YOU KNOW...

Vancouver is home to the world's longest fully automated train network, carrying 495,000 passengers per day and the busiest bus route in Canada or the USA, carrying 60,000 passengers per day.

MAKING A DIFFERENCE

The number of trips made by foot, bike and public transit has risen from 40% in 2008 to 53% in 2018. The average distance driven per resident has also dropped by 38%.

\rightarrow WHAT NEXT?

By 2030, 50% of kilometres driven on Vancouver's roads will be by zero emissions vehicles.



Be inspired

Take a look at the <u>C40 Green and Healthy Streets</u> <u>Declaration page</u>. All signatory cities are listed along with the actions they plan to take to achieve the commitments. All mayors can use this information to set the benchmark for action on transport in their cities.

Be bold

Get in touch with your key C40 Cities contact or Regional Director to signal your intention to join the mayors who have already signed the C40 Green and Healthy Streets Declaration.

Be empowered

Get involved by contacting us (<u>transport@C40.org</u>) to learn more about what C40 mayors are doing collectively to accelerate city ambition, transform cities, demonstrate the benefits of the future we want and send a strong signal to the private sector to create zero emission products and services.

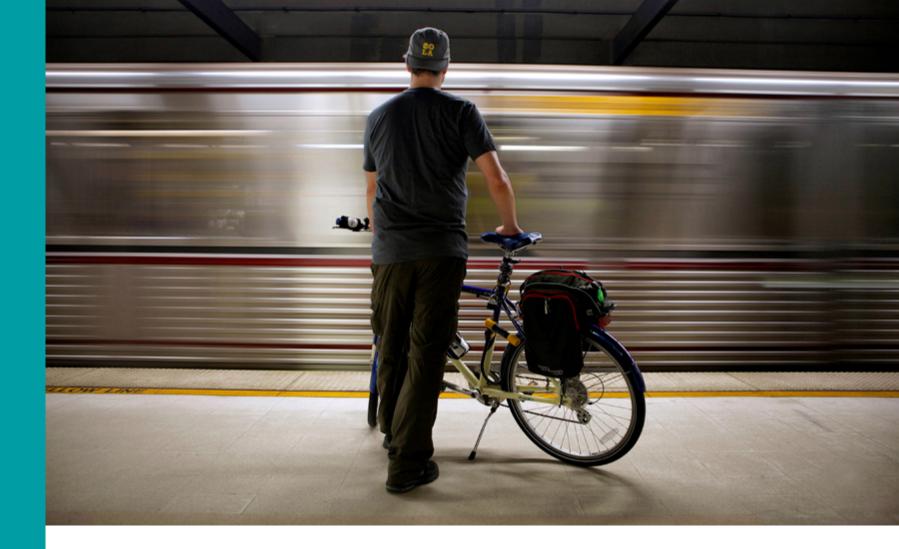
TUMI - the Transformative Urban Mobility Initiative - is the leading global initiative on sustainable mobility implementation that is formed through the union of 11 prestigious partners.

TUMI supports mobility projects globally and supports city-level policy-makers with the tools to enable them to make decisions that positively transform mobility in their cities.

We believe in a future that allows all citizens access to Sustainable Urban Mobility.

This guidebook is meant to give you, as mayors, the opportunity to learn directly from your peers on how to implement the projects needed to achieve this goal. All cities and mayors featured have shown bold political leadership, which we hope can serve as an inspiration for you to show the same leadership in your cities.

We are proud to support C40 in this publication.







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