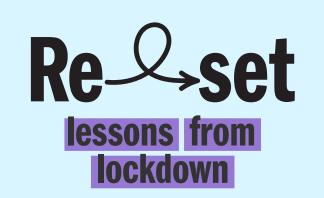
# UNNECESSARY TRAVEL LESSONS FROM THE PANDEMIC FOR BETTER LIVING



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# ENDING UNNECESSARY TRAVEL

# How the pandemic taught us to save time, money and pollution by using less transport

Is climate change moving faster than our ability to respond? As temperatures soar, severe weather events become more frequent and nature takes a hammering, it is increasingly clear that we need to act now. But is there any evidence-based hope that we can change our behaviour and the systems we have built at the speed and scale required? The answer is yes - there are examples of successful transition from a huge range of times, places, communities and areas of life that suggest people are surprisingly good at rapid change. You can find them at: **rapidtransition.org.**  The world has just lived through an exceptional upheaval in the coronavirus pandemic and in this briefing we take a focused look at some of the incredibly rapid changes that occurred - some almost overnight - in how we travel and what these mean for a more sustainable future. It has been a traumatic and difficult time, but extraordinary circumstances have also kindled remarkable responses that give real hope about humanity's abilities to change direction and avert the climate and ecological emergency.

After capturing **lessons from the first lockdown** at the start of 2020, the Rapid Transition Alliance began in early 2021 to examine the trends in behaviour and systemic change that were emerging during the pandemic.

We collected reflections by people as this new world unfolded and began to analyse how new behaviours might prove positive for a future low-carbon world. Two of the big shifts we noted were an increased awareness of our own overconsumption across wealthier parts of the world, and a huge reduction in what became "unnecessary travel" - including commuting, holidays and business journeys. Cycling and walking are being treated in many places as valid parts of our transport system once again, while flying for business is becoming a rarity and staycations are the norm for many. Electric vehicles are growing in popularity, and in particular micro forms of transport such as electric scooters and bikes, making much greener short journeys a feasible option for many. The cargo bike has moved from a cheaper and convenient form of goods transport across much of the global south to a last-mile goods transport option for cities in the global north, particularly as pollution brings restrictions on emission to urban centres. Urban street design changes are also underway, prioritising the pedestrian over the car, linking trams and buses better to trains and other mass transport systems - some of which are now free.

The short stories here look in more detail at unnecessary travel and consider some of the key messages and solutions that have become apparent during the pandemic that could help us make the rapid transition to a more sustainable future.

These stories and the messages they carry are a resource to be shared and we encourage you to reuse them, share them widely and to let us know your own stories of positive change.

2

Introduction

3

# **GREEN TRAVEL NOW MEANS STAYING GROUNDED**

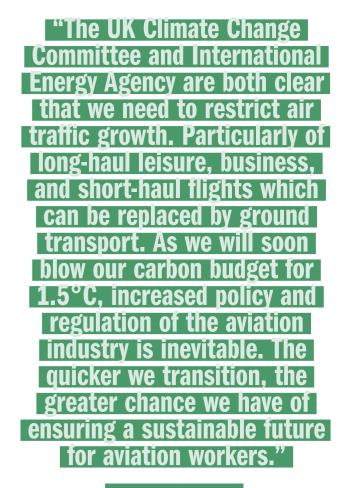


When realisation of the seriousness of the COVID-19 pandemic hit, overnight it became impossible to get on a plane and fly to a far-flung destination, for work or leisure. From 2019 to 2020, air travel fell by 60%,<sup>1</sup> which is an overall reduction of 2,703 million passenger trips. Last year, passenger numbers were still down by approximately 49%.<sup>2</sup> But the drop in people flying, and the restrictions to movement brought in to contain the pandemic, did not hamper the human desire for adventure - nor people's demand for sustainable, slow and more grounded ways of travelling.

When it comes to frequent flights, and the centrality of flying to the common image of a holiday, a critical question is how the disruption caused by the pandemic might permanently alter behaviours and habits.<sup>3</sup> This question matters especially for flying because of its oversized environmental impacts and the fact that these are experienced unequally<sup>4</sup> across and within populations around the world. Even before the pandemic took hold, flying was an activity reserved for just a small slice of humanity. Estimates vary, but approximately 80% of people have never stepped foot on a plane.<sup>5</sup> The richest 10% of humanity, however, use 75% of all aviation fuel<sup>6</sup>. Despite this relatively small number of passengers, aviation contributed roughly 5.9% to all the

With aviation halted and foreign quickly found the benefits of keeping their feet on the ground and new ways to enjoy a journey





Finlay Asher. Safe Landing<sup>8</sup>

5

As the pandemic spread across Europe, with planes at a standstill, people looked to the often overlooked train to help them move around and, in the process, the sleeper train emerged as a low-carbon substitute to the excesses of **budget air travel.**<sup>9</sup> The Swedish government has since promised to invest in two new routes to connect the cities of Stockholm and Malmö with Hamburg and Brussels.<sup>10</sup> France too has revitalised the overnight service between Paris and Nice, with tickets as low as €19,<sup>11</sup> and French President Emmanuel Macron used his Bastille Day speech as an opportunity to bring the idea of sleeper trains back to the nation.<sup>12</sup> He appears serious about this promise too, as France has adopted new laws that ban short-haul domestic flights where alternative train routes are available.<sup>13</sup>

Some existing routes saw such a huge surge in demand during the pandemic that capacity has been increased. The sleeper train that runs through the Czech Republic, Slovakia, Hungary, Slovenia and Croatia<sup>14</sup> was originally supposed to be a summer service, but due to such high demand has been upgraded to a daily service.<sup>15</sup> In Sweden, the birthplace of the flygskam movement<sup>16</sup> (in which people aim not to fly at all - the word translates as 'flight shame'), the demand for sleeper trains amid the global pandemic was just as high as before COVID-19 took hold. Air travel in Sweden, on the other hand, fell by more than 80% during **the pandemic**.<sup>17</sup> The rejuvenation of the train in the Swedish public imaginary has had a cultural impact too, with pop songs released celebrating the wonders of train travel,<sup>18</sup> and the term **Tågskryt**<sup>19</sup> – literally meaning 'train brag' - entering the lexicon as testimony to the joy and pride of choosing the grounded travel option and a counterpoint to flygskam.



6

The renewed romance of twin bunks and couchettes during the pandemic could have been caused by a simultaneous shift in values. Unable to fly and travel long distances by air. people took a pause and guestioned why they travelled so far for holidays, or to work, in the first place.

Tågskrvt

One study conducted in Norway,<sup>20</sup> one of the European countries where people take the most flights per capita,<sup>21</sup> found that the forced disruption caused by the pandemic led one in three polling respondents to reflect on whether they should travel as much as they had before the pandemic's onset. People realising the futility of much of their air travel was a growing trend before,<sup>22</sup> but may have been accelerated by the pandemic and the widespread move to remote working and limited commuting.23 Another study from Norway<sup>24</sup> recently reported that a reduction in work-related air travel was linked with higher levels of wellbeing, describing flving less as a 'synergic satisfier' that fulfilled the needs for identity, freedom, leisure, and creation.<sup>25</sup>

These sentiments are not the sole preserve of Scandinavia either. People all around the world realised over the course of the pandemic how their transport habits have an impact on the health of the planet. An international survey 26 found that for many, of the available options it would be easiest to give up flying in order to fight climate change, with 40% of Europeans agreeing, 38% of Americans and 43% of Chinese respondents. The same survey<sup>27</sup> found that 37% of Chinese citizens, 22% of Europeans and 22% of US Americans intended to avoid flying due to concerns over the climate crisis.

"The pandemic has been hard for us all, but one thing it showed us is perhaps we don't need to travel far to have a good time. Forced to stay put, we turned to destinations closer-to-home for our annual break. But, as restrictions ease and travel picks up once more, how can we make sure that people continue to opt for the low carbon options? One thing we urgently need is for low-carbon options to be much cheaper, convenient and accessible. When the channel tunnel opened, the plan was to run night trains through it from all corners of the UK. This would be a game-changer in terms of our European holidays – but only if it's affordable. The UK government needs to abandon its prioritisation of air travel and instead focus on the low carbon options with meaningful investment, to increase the number and capacity of trains and keep ticket prices low."

Anna Hughes, director of Flight Free UK

These altered sentiments created fertile ground for demands for a better, more sustainable and grounded transport system. A recent survey conducted in the UK found 93% of respondents<sup>28</sup> supporting the idea of better-integrated public transport coordinated by local government authorities. Specifically relating to aviation, 89% of respondents supported the idea of raising the costs of flights, particularly for frequent fliers.<sup>29</sup> The desire for new transport options can be understood in the wider context of people wanting to see systemic and far-reaching change after the pandemic subsides. Nearly three-quarters (72%) of adults, from across 27 countries, said they want their life to change significantly after the pandemic, with nearly nine in ten (86%)<sup>30</sup> saying they would like to see the entire world change significantly to become more sustainable and equitable.



As the pandemic pushed many into a state of flux, travelling differently was one way in which people could remain grounded amid the uncertainty and chaos. The sleeper train, once sidelined by the excesses of budget air travel and a cultural appetite for instant gratification, is now back in vogue thanks, in part, to the global pandemic disrupting the everyday lives of billions of people. And with concern over the climate crisis at an all time high around the world, policy and travel choices could be permanently altered.





# THE JOY OF SLOW TRAVEL

One of the clearest signs of the global pandemic disrupting the rhythm of everyday life was in changes to travel. Millions of people either stopped travelling completely, reduced the amount they moved about or changed the type of transport they used. As people largely **stayed at home**,<sup>1</sup> they began to think about travel differently, and creative tips on how to have **a break at home**<sup>2</sup> abounded. One couple **made a beach**<sup>3</sup> in their sitting room, a UK TV personality took her family **camping in their own back garden**<sup>4</sup> and a US city authority gave tips **on having fun at home**.<sup>5</sup>

Even as the severe lockdowns ended, those who did travel further afield took breaks without flying. The **Hiking Hens**<sup>6</sup> took women in Northern Ireland hill walking for the first time, **self-guided city walks**<sup>7</sup> sprang up in Manchester, and most of Europe saw a **boom in cycling leisure trips**.<sup>8</sup> Now that people are able to move further afield once more, there's an opportunity to act on what we learned in the pandemic and keep going with the flow of slower travel.

Europe saw a boom

in cycling leisure trips

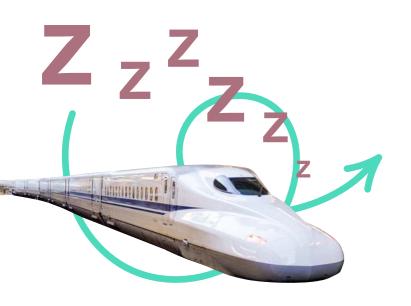
airports stood empty

For many the pandemic slowed down everyday life, now, Slow Travel could be here for the long haul

8 Lessons from Lockdown – Unnecessary Travel

Originally connected to the Slow Food movement, which was started by Carlo Petrini in the 1980s to resist the opening of a McDonald's in Rome, the concept of "Slow Travel" aims to defend and nurture regional traditions, gastronomic pleasure and a slower pace of life. It also has a growing focus on sustainability and self-care; carrying out activities that are healthy for the mind and body, taking time to meet people and savour sensations in an unhurried and environmentally friendly way. Slow tourism is forecast to grow<sup>9</sup> by an average of 10% per year, bolstered by the experience of the global pandemic, and set to become a viable alternative to more energy-intensive and stressinducing holidays.

A large part of Slow Travel is about getting there sustainably, which means walking, cycling or using ground-based public transport. These greener modes of transport have long been overshadowed by the heavily subsidised airline industry. But the pandemic caused a major change in attitudes towards flying, as planes were grounded for long periods, **airlines went bust**<sup>10</sup> and airports **stood empty**<sup>11</sup> – some even taken over by local **wildlife**.<sup>12</sup> Flying was suddenly recognised as non-essential for most people, as priorities shifted to protecting key workers, friends and family by not going anywhere. The skies held only birds and the air was cleaner.



There are also signs of a deeper systemic shift as France has adopted new regulations<sup>13</sup> that bans short-haul flights where train routes are available, and is developing a **network of** overnight sleeper trains.<sup>14</sup> Sweden's transport authority also announced it would invest in new international sleeper trains<sup>15</sup> running between Stockholm and Hamburg as well as Malmö and Brussels. Trains offer realistic international transport options in key holidaymaking regions like Europe, and within many countries, although they are hampered by airlines' tax privileges. The flygsham movement,<sup>16</sup> which started in 2017 in Sweden and encourages people to stop flying completely, also gained supporters worldwide. Meanwhile, travel companies have sprung up to serve no-fly itineraries, and others in regions where rail is not yet a viable option have redesigned holidays<sup>17</sup> to reduce their impact on the environment.

The collapse of tourism caused real damage to nations dependent on overseas visitors, throwing an estimated **100 million**<sup>18</sup> people out of work. But slower travel, much less reliant on polluting aviation, offers the tourism industry new opportunities to 'build back better'. Such alternatives gain fewer headlines, but could signal a better, more mindful way to travel. With more local tourism, and greater numbers of sustainable transport options, the concept of Slow Travel offers a viable alternative to the hassle of old-style conventional tourism and can bring more benefits to host communities. For travellers. this shift could enable more enjoyable, healthier and less damaging trips,19 with benefits for our mental health, our intercultural knowledge and local hospitality sectors.

"We have to completely rethink what 'going on holiday' means. For decades, travelling has been a necessary evil. rather than being an eniovable part of the experience. I. for one, have <u>always hated the</u> dehumanising experience of air travel, never mind the carbon price tag. Spending hours in an airport. undressing in public and realising too late vou have holes in your socks and your trousers doesn't stay up without your belt, being made to dump any forgotten liquids you may still have about vour person. I'm a strong advocate of buy less, buy quality, in all aspects of consumption – and holidays don't have to be the exception to this."

Paula Owen, founder & CEO of Green Gumption

Mass tourism often results in the concentration of visitors at a relatively small number of overburdened locations in just a few global cities or celebrated beauty spots. Here, the impact of visitors can be huge and damage the very things people go to see. In 1974, the Galapagos Islands authorities set an original target of **12,000 visits**<sup>20</sup> annually, but this was later revised to 40,000 and visitors now top 225,000. This kind of tourism is **no longer sustainable**,<sup>21</sup> and there are many **groups of people**<sup>22</sup> now rediscovering the joys of wildlife watching in their own backyard.

The impact on wellbeing also adds a vital string to Slow Travel's bow. After all, this is what a holiday is supposed to be about. The experience on arrival at a famous destination is rarely the one described in the brochure or Instagram post. Often it is crowded, expensive and feels far less special than anticipated. In contrast, during the pandemic, people discovered local places of beauty, often drawn by nature, and enjoyed them with the friends and family they were able to see. Some have predicted a more extensive global shift and desire for more immersive and meaningful experiences.<sup>23</sup> People want their money to go to people who need it and their time to be spent well.<sup>24</sup> Companies<sup>25</sup> are springing up in an attempt to supply this, but the industry is still in the nascent stages with huge potential to grow.





"For me, travelling slowly is not just about the type of transport we choose, it's also about the type of experiences we engage in. As we push toward a wellbeing economy that nourishes people and planet, travel must involve deeper connection with and contribution to place and local communities – rather than simple extraction."

Slower travel is all about the journey, the company and the connection with place and people, finding your own way using public transport, cycling or walking, allowing yourself to explore,<sup>26</sup> talking to people and enjoying the local delicacies. This might mean staying with a family, learning a language or doing a course with a local craftsperson. And it might mean doing this in your own region<sup>27</sup> or a neighbouring country, rather than on the other side of the world. This could have the effect of spreading out the impact of tourism more evenly and lightly across any given city, country or region, allowing resources and areas rich with biodiversity to recover. The pandemic has taught us the importance of those we love, of experience over stuff, and that simple pleasures are often all we need. Slow Travel feeds our need for experience, connection and adventure, and will play a crucial role in the future of tourism.

# **NO FLIGHT NECESSARY**





As flying becomes a no-go area for growing numbers of carbon conscious travellers, the default holiday is changing as a result of our experience during the pandemic. People have realised they can explore much closer to home and save time, money and reduce their impact on the environment. It also enables people to see their home location<sup>1</sup> from a new - and sometimes more positive – perspective. From Instagram trips around Hong Kong<sup>2</sup> to walking tours of the Cincinatti's slave history,<sup>3</sup> imaginative ways of having fun in your own area have sprung up all over. Exotic places on the other side of the world are no longer a must, staycations<sup>4</sup> and regional tourism have become desirable again, and simply discovering your local area is back on the table.

FOOTPATH

How the pandemic triggered a new 'micro-adventure' movement in local spaces and places The UK's Ordnance Survey Maps app saw a year-on-year sales increase of 41%<sup>5</sup> in April 2020, as people took to the streets, lanes and footpaths in search of space. Even sales of custom made paper maps in May 2020 were up by 175% as people made up their own local walks and trips. The Echoes interactive "sound walks" app<sup>6</sup> uses audio made by artists, musicians, authors and historians around the world, with content triggered by GPS or Apple iBeacons along the route to add a new dimension to your journey. This change spells hope for a more sustainable future and could revive many under-appreciated towns and regions, as people find places of historical, cultural and ecological interest closer to home. Travelling locally or regionally means that flying is unlikely and that more sustainable forms of transport predominate: trains, cycling, walking and electric vehicles.

During the lockdowns in particular, as people were restricted to places they could **reach** by bike<sup>7</sup> or on foot, many were astonished to discover local woods, walking paths, town trails, parks and ancient monuments they would otherwise never have found. The shared exploration with friends and family - or alone - of a local, loved location is an experience well known in earlier times and being rediscovered today. This can also help build community, bring people together regularly and increase wellbeing,8 and reduce the impact on more famous sites. It also reduces overconsumption<sup>9</sup> – a walk through a local bluebell wood or across a nearby park provides healthy activity, rest from stress and requires no gift shop, or shopping at all. One Florida resident was amazed to discover his county has 24 parks and 11,000 acres of nature<sup>10</sup> to explore.



Nature and health and all its interactions are of huge interest and importance to me. This stems from an early career in public health and a lifelong love for wildlife and nature. I have always enjoyed engaging with my local patch and am incredibly lucky to have a wildlife garden to immerse myself in. I was really, really heartened by the joy that so many people found from connecting with nature on their doorsteps during the lockdowns in particular. I truly hope that we can continue this as part of a more sustainable future, both for our own health and wellbeing and for the reduced carbon footprint that will contribute to tackling climate change.

Not everyone has access to the countryside and some organisations stepped up to support those living in cities or towns with little access to green space. The UK's Council for British Archaeology and the Young Archaeologists Club, ran a Local Explorers Challenge<sup>11</sup> based on the game of Bingo, in which the aim is to find a series of features - the winner is the one who finds them all first. People used to exploring more widely and who found themselves restricted in geography came up with **creative** ways to explore <sup>12</sup> close to home, such as drawing a circle on a map and then following it, finding the highest point in your area and zig-zagging your way back home, follow a feature of the landscape - a river or canal, pipeline or power line, travelling every path or street in your area in one journey, walking a familiar route but at night. A British author came up with a whole book on "Microadventures."13 that can be done close to home without overconsumption or unsustainable travel.

The pandemic drew much needed attention to the inequality of health impacts and access to outside spaces for poorer populations and – thanks largely to the awareness of persistent racism after the death of the American George Flloyd – in particular to racism in rural areas. According **to the Office for National Statistics**,<sup>14</sup> in every region of England and Wales, white groups were least likely to live in an urban location and people from Asian and Black ethnic groups were most likely to do so.

A range of groups actively encouraging people from a range of ethnic backgrounds to hike, walk and otherwise explore the countryside across Britain rose to prominence during the pandemic, from Black2Nature,<sup>15</sup> Black Girls Hike<sup>16</sup> and Black Men Walking.<sup>17</sup> Black Girls Hike member Davina, who lives in the UK city of Salford, found a local canal path<sup>18</sup> she had never visited before thanks to the restrictions on going to more obviously exciting destinations. This movement is growing, acknowledging that people of colour are often not welcomed in the countryside.19 British heritage charity The National Trust ran a study programme together with the University of Leicester to build on the UK's growing understanding of how its huge slave trade funded many of its country houses 20 and other historical infrastructure.

Sandra King, Beaver Trust

Many places dependent on international tourism had to respond flexibly to the sudden stop of visitors and several did this successfully by pivoting to local interest, history, art and nature. Hong Kong travel companies offered ghost tours<sup>21</sup> for residents around famous sites and cemeteries, and the chance to solve a local mystery with a map and clues. The city's hotels also marketed strongly 22 at local people to use their facilities for a staycation. As many people live in small apartments, this proved popular and kept much of the tourism sector afloat. In the US, organisations such as the Cincinnati Reds baseball club compensated for the empty stadiums by running walking tours<sup>23</sup> in the area.

Some people for whom travel was a large part of their life – such as wealthier retired people used to roaming in campervans or to second homes - had to significantly adjust their behaviour and found much to appreciate. Australia is a country whose citizens are used to travelling long distances, and the pandemic has given many of them a new way to exercise their famously adventurous spirit. Research on domestic tourism<sup>24</sup> in 2021 pointed out the tendency among young Australians to travel overseas in their younger years and wait until they have a family or even until retirement before taking the time to really explore Australia. The pandemic may reverse this trend, as Australia's huge spaces and unique wildlife offer great value for money with a much lower carbon footprint. Road trips, camping and homestays are all popular and the number of recreational vehicles (campers, caravans and motorhomes) registered rose by 16.5 per cent<sup>25</sup> in the June guarter of 2020.

The pandemic not only stopped us travelling; it also resulted in many of us focusing on closer to home, becoming more engaged with our local communities, cycling and walking to destinations in our own neighbourhoods and noticing the natural world in our immediate vicinity. As the world opens up again and foreign destinations look more enticing, let's hope that our newfound appreciation of our own areas remains strong, helping us to build resilience together.

# GLIMPSING A DIFFERENT KIND OF STREETSCAPE

# How claiming back urban space for people from cars makes healthy spaces

 $\mathsf{P} \vdash \mathsf{P}$ 

Throughout the lockdowns, streets around

change was the drop in traffic. In the United

people's homes and town centres were rapidly

transformed and repurposed. The most obvious

Kingdom, traffic dropped by as much as 73%,1

reaching levels previously seen as long ago as

ages, people could hear birdsong again and felt

consumption was challenged. In its place, came community – the high streets began to bubble up with spaces for children's play, community exchange and people getting together to help each other in a flowering of so-called 'mutual aid' groups. Life returned to high streets, but not

safe cycling on the roads. The low-grade and

1955. With fewer cars clogging up the roads,

the air became clearer. For the first time in

And out on the streets, spaces and places began to alter in the face of a new reality. As physical retail was put temporarily on hold, the high streets' role as an enabler of

damaging hum of engines subsided.

as we had known it.

The shifts taking place on the streets were planned in some cases, organic in others. The flurry of Low Traffic Neighbourhoods (LTNs) introduced in the midst of the pandemic sought to galvanise active travel – walking and cycling and push cars out of cities. The results were significant, with **traffic accidents halving in areas with LTNs**.<sup>2</sup> Considering that **65% of cities' public realm is given up to cars**<sup>3</sup> – and cars are static 80% of the time – claiming back space for people and communities was quietly revolutionary.



More organically, parents and children decided to turn streets into their own playgrounds where their imaginations could run wild. In Germany, the district office of Friedrichshain-Kreuzberg – one of Europe's most densely populated areas – **opened up 30 streets**<sup>4</sup> on Sundays as temporary playgrounds. Play was hugely disrupted during lockdown, with potentially dire consequences for childrens' mental health and social development. As research shows though, play is far more than just about learning for children, **it is a feeling**<sup>5</sup> – a way of doing things, figuring them out for yourself, and living. And adults got involved too, shaking off society's expectations and getting stuck into hop-skotch.

Creating space for children to play is vital to building a fairer, more cohesive society. In the UK, 1.5 million million people live in overcrowded accommodation.6 with one in eight households having no access<sup>7</sup> to a garden. These trends disproportionately effect ethnic minorities in urban areas all around the world, who are less likely to have access to well-maintained green spaces.<sup>8</sup> A major US nation-wide study<sup>9</sup> covering over 900,000 people showed that children who grew up with the lowest levels of green space had up to 55% higher risk of developing a psychiatric disorder independent of other known risk factors. Opening up spaces meant people could gather, learn and play together, while also tackling the inequality of access to green spaces and clean air.<sup>10</sup> In terms of building community resilience in the face of the climate emergency, play could be the great enabler, leveler and connector.

And as children and parents poured out to play on the streets, they were aided by the innumerable amount of street art and murals that blossomed all around the world such as the Artscape<sup>11</sup> initiative in Sweden and roller shutter graffiti<sup>12</sup> in Italy. While the world logged onto Zoom, art filled the streets. Many of these murals provided a visual commentary on the unfolding COVID-19 crisis, from the USA<sup>13</sup> to Brazil.14 while other pieces of street art honoured the superheroes keeping us safe.15 Street art played a vital role in pushing social boundaries, helping to recast the crisis people were living through and helping to illustrate the many mistakes made at the hands of the political class. Street art challenged power and playfully suggested that a different world could emerge from the pandemic; one that we were free to create.



Communities leaned towards self-reliance, using the disruption caused by the pandemic to build on their new found agency. The residents in **Bernal Heights, San Francisco**,<sup>16</sup> started a local newspaper to keep everyone informed during lockdown and set up food and supply banks, pop-up bakeries and open spaces to celebrate the arts, with musicians, poets and opera singers all engaging new audiences. Streets became a place for communities to gather.

As streetscapes around the world transformed and diversified, people began to feel differently about those surrounding them, **with surveys noting an uptick in feelings of solidarity towards others.**<sup>17</sup> The humble street, once obscured and ignored by stationary cars and rushing commuters, became a social space: people spent more time on the street, uninhibited by work or social commitments, and acknowledged and engaged with those around them. Social distancing became something merely physical. Now that the world is emerging once more from COVID-19 restrictions, our ability to rapidly transform streetscapes, and the power of doing so, must be retained and developed further. The memories of traffic subsiding, the air clearing and people coming together as communities, bedded to a place and a people, can inspire new transitions. With the climate crisis posing profound challenges to society, fostering resilient communities where people share both necessities and luxuries cannot be underestimated. The streetscape provides a blank canvas on which any community can create.





How people found better ways to get around that were good for health, cleaner air, more peaceful and safer communities The climate-friendly bicycle – still overlooked by many city planners – enjoyed a revival throughout the pandemic lockdowns. As the virus took hold, fears over transmission grew and governments introduced stay-at-home orders, car and public transport use fell dramatically. Pictures of formerly congested international megacities spread showing peaceful, empty highways and clearer skies, while pavements and parks grew busy as millions rediscovered the benefits of walking and cycling.

While there was **limited evidence to suggest that viral transmission was higher on public transport**,<sup>1</sup> concerned citizens around the world looked to alternative ways of getting around. In New York, **bus and rail ridership dropped by 74%**<sup>2</sup> at one point even before the government closed down the transit system.

Some people returned to the car, but others returned to older technologies to keep safe and also to get some exercise. The bike, **first developed by German inventor Karl von Drais in 1817**<sup>3</sup> and seen as a symbol of social liberation, was back in vogue. People dusted off the saddles of bikes long abandoned at the back of garages, while others hit the stores to pick-up some new wheels. Bike suppliers **struggled to keep up with renewed demand**<sup>4</sup> and a **global shortage of bicycles was declared**<sup>5</sup> that is expected to last well into 2022.





People around the world were getting on their bikes in huge numbers. In the USA, **one in ten American adults reported riding a bike for the first time in a year or longer since the onset of the pandemic**.<sup>6</sup> Across the Atlantic, in the UK, **cycling surged by 200%**<sup>7</sup> during the initial lockdown on weekends and **100% on weekdays**.<sup>8</sup> Data from over 100 European cities showed growing cycling rates of between **11% and 48% on average, generating health benefits of somewhere between \$1 billion and \$7 billion**.<sup>9</sup> Bike use in the Argentinian city of **Buenos Aires saw an increase of 129%**,<sup>10</sup> with a similar increase identified across China's bikeshare infrastructure.



This truly global phenomenon was enabled by a variety of factors – some of which could be used to lock-in and encourage continued bike use for years to come. The first, and probably the most profound, was that people found themselves with more time. Working from home had almost eradicated the daily commute and lockdown restrictions closed off many of the social or sporting activities that people would normally have taken part in.

The bike emerged as one of the most accessible and reliable methods of transportation during the lockdowns: and it was supported by governments and business. Authorities around the world – both national and local – used the temporary drop in road traffic as an opportunity to reconfigure streetscapes in favour of the bicycle. As of July 2020, nearly 2,600km of new cycling infrastructure had been announced<sup>11</sup> across European cities. and around 1,500km of schemes have been implemented.<sup>12</sup> In the Colmbian city of Bogota, 47 miles of bike lanes were introduced<sup>13</sup> and in the car-dominated city of Oakland in California. 74 miles of road were closed to cars and given over to bicycles and pedestrians<sup>14</sup> instead.

"The pandemic accelerated the development of cycling schemes around the world and revealed what many of us who have been working in this space for years have long known: that there is great and heretofore untapped demand for safer streets for riding bicycles for transportation. Smart cities understood the obligation to satisfy that demand."

Doug Gordon, Co-host, The War on Cars podcast

In Britain, a raft of Low Traffic Neighbourhoods (LTNs) came into existence, which managed to **halve road traffic injuries in London neighbourhoods that had introduced them.**<sup>15</sup> When the infrastructure was provided for citizens, they did not think twice about getting on their bike. Confidence and feeling safe is key. In European countries like the Netherlands, Denmark and Sweden urban cycling has been normalised and made safe with dedicated bike infrastructure. Where that is missing, like in the UK, it has held cycling back. **Sixty six percent of adults in the UK think that cycling on the roads is too dangerous**,<sup>16</sup> with the percentage as high as **71% amongst women**.<sup>17</sup> But experience from the pandemic shows that protected and dedicated bike infrastructure could unlock a cycling revolution. If people feel safe, they are more likely to consider cycling.

The bike was transformed from a leisure activity to an essential service. At the heart of the lockdowns, bicycle maintenance shops were given exemptions<sup>18</sup> to stay open in the UK, USA and many European nations too, putting them on par with supermarkets and pharmacies in terms of their necessity. Bikes were also seen as a vital way in which front line key workers could get to work and continue keeping us safe throughout the pandemic. The Wheels for Heroes campaign, launched by the British bike manufacturer Brompton, raised enough funds to provide 1000 bicycles to more than 3,000 health workers up and down the UK.<sup>19</sup> Repair and maintenance needs to grow to support increased cycling. Community schemes such as the Community Bike Workshop<sup>20</sup> in the Welsh Dyfi Valley, set a great example. Their weekly social space offers advice on fixing bikes, practical help, tools and donated second-hand spare parts.

The big lesson underlined by the experience of the pandemic, is that if you want more people to cycle, you have to make it easy. That means protected bike lanes, secure lock ups for bicycles and easy access to bike repair and maintenance. But that brings all the benefits of better health, less pollution, safer streets and more pleasant places to live. And, compared to other transport infrastructure these things are incredibly cheap to provide.

Andrew Simms, New Weather Institute

Alongside the infrastructure were the incentives. City governments quickly realised that boosting bikes would be a way to cut down on air pollution, which is responsible for around 4.2 million deaths a year globally.<sup>21</sup> The French government ring fenced €20 million so that all citizens were eligible for bike repairs of up to €50<sup>22</sup> and transformed car parking spaces into cycle shelters. Under even more recent plans. French citizens can claim up to €2,500 towards an electric bike<sup>23</sup> if they trade in their old gas-guzzling car. In Italy, the government allocated €210 million for a cash-back programme,<sup>24</sup> where Italian residents who purchased a vehicle without an engine - such as a bicycle or e-scooter - would receive a €500 stipend. And there is substantial appetite for these trade-in schemes, with research suggesting that e-bike incentives are over twice as effective as electric vehicle grants.<sup>25</sup> E-bikes will be particularly useful in rural locations where longer distance journeys are more common and only the fittest, greenest or poorest currently use their bikes as daily transport.

The lockdowns fuelled a bicycle revival for many reasons, it was cheap, convenient and people felt safer on less congested roads and riding while special traffic reduction measures were in place. Bicycle use was encouraged and enabled through government policy, the creation of dedicated and safe cycle lanes, and a range of financial incentives that made getting in the saddle not only the healthiest and easiest option, but the most profitable. Most importantly though, the bicycle gave people freedom during a time of restrictions, where they got to experience their towns and cities from a new, different perspective. Cycling as a means of transport offers benefits for health, pollution reduction and wellbeing, allowing people to enjoy their surroundings more directly and to feel better connected to nature and to their wider community.



# **CARS – THE END OF THE LOVE AFFAIR**

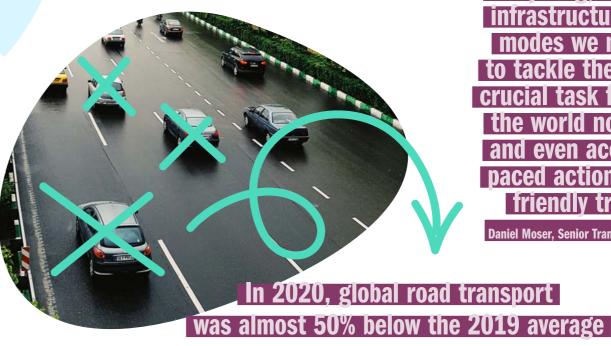


As an enabler of people meeting and gathering together, transport found itself in an unprecedented and existential crisis during the global pandemic. From car journeys and riding on public transport, to international air and train travel, COVID-19 affected every mode of transport. In 2020, global road transport was almost 50% below the 2019 average and commercial air travel was nearly 75% below the 2019 average.<sup>1</sup> Despite the visible rush to get back to the abnormality of pre-pandemic life, and politicians willing the pandemic's impact on everyday life to be over, our daily travel habits have changed significantly – and perhaps permanently.

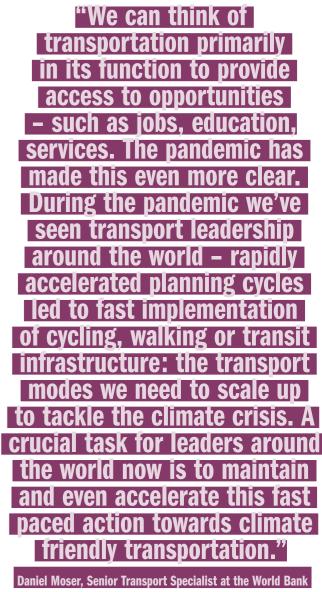
The experience of the global pandemic and its fallout constitutes a paradigm shift for transport. And as people experienced some of the positive impacts of reduced transport, from lower levels of air pollution to fewer traffic deaths, governments and transport providers are now exploring alternative ways of getting people from A to B that don't cost the earth and clog the skies.

There's evidence that the great modal shift is already underway, with the vast uptake in cycling throughout Europe and further afield, the construction of active travel infrastructure, which took the streets back from cars and gave it to people and children,<sup>2</sup> and people realising that adventure, relaxation and happiness could be found much closer to home.<sup>3</sup>

## How the pandemic helped people ditch polluting travel habits and pick-up new, cleaner, healthier ones



How to sustain these shifts, and the positive benefits that arose from travelling differently, once the pandemic has subsided is an urgent question that remains unanswered in too many places. But fortunately, in some areas, pre-pandemic travel trends are yet to return and may never do so. A recent report on the UK from **CREDS**<sup>4</sup> found that while economic activity has returned to pre-pandemic levels already. British citizens are still travelling less than before the onset of COVID-19. These findings are significant as they contradict the dominant idea that more travel automatically equates to greater levels of economic activity. In the wake of the pandemic, this idea no longer holds.<sup>5</sup>



Cars - the end of the love affair

In many parts of the world, road traffic volumes are still lower than they were before the onset of the pandemic. In Ireland, where people have been encouraged to return to work and restrictions have been eased, **levels of traffic are still between 5% and 20% lower**<sup>6</sup> than pre-pandemic, depending on the road. A survey of data collected by a leading satnav company, **shows that traffic congestion in cities around the world was 10% lower in 2021 than it was in 2019, with 283 of the 404 cities**<sup>7</sup> surveyed experiencing less traffic than they did before the global pandemic.

During rush hour, the drop in traffic was even more apparent **at 19% lower than pre-pandemic levels**.<sup>8</sup> Traffic in the UK is still not back to pre-pandemic levels either, with weekend car traffic in England **sitting around 10% below the levels experienced before the lockdowns**.<sup>9</sup> The amount of people now working from home, and companies adjusting to this new reality, has had profound impacts on travel behaviour. But even if all the people who switched to working from home in the UK were to go back to travelling for half of their working week, **car commuter miles will still be reduced by 16%**.<sup>10</sup>





"The pandemic has highlighted the importance of building and maintaining resilient communities. Wales' UN-endorsed Well-being of Future Generations Act allows us to make the right decisions to help us shift towards a longer-term and preventative outlook on how we run our society and public services. Recently we have focused on reducing our reliance on cars in Welsh cities, and considered mobility as a wider route to well-being. In Cardiff the introduction of the act has led to a tenfold increase in investment into safe routes to cycle and to walk. We've targeted this investment towards neighbourhoods that have the highest level of air pollution and the lowest life expectancy. Taking a holistic approach to transport policy – in which environmental, social, cultural and economic wellbeing are of equal importance – has never been more key."

Sophie Howe, Wales Future Generations Commission

### All across Europe, cities spent a combined €1 billion on improving cycling infrastructures during the pandemic

The benefits of traffic not resurging are both obvious and more subtle. One of the most striking benefits is the drop in road traffic deaths and injuries around the globe. One study found a reduction in road traffic deaths in 32 of the 36 countries between April 2019 and 2020, with a decrease of 50% or more in 12 countries.<sup>11</sup> People are also buying fewer cars, which stops emissions from entering the atmosphere in the first place. While there are many reasons for falling car ownership, the pandemic certainly exacerbated it. In the UK, the sale of used - and, in particular, new - cars has fallen below pre-pandemic levels in the UK<sup>12</sup> and there has been a significant increase in the number of households reducing from two cars to one.<sup>13</sup> Despite what many people thought, the pandemic did not lead to a 'dash to the car'14 and instead may accelerate the move towards Car-Free Megacities.<sup>15</sup>

Many people also used the disruption of the pandemic, and the additional free time it afforded them, to walk. And in some contexts, the huge increases in travel by bike and foot continued even as the world began to emerge. People hiking in the USA increased by around 135% during the pandemic 16 with many of the American national parks still reporting record breaking numbers of visitors.<sup>17</sup> In the UK, the massive increase in walking seen in October 2020 had been maintained well into 2021.18 Alongside walking and hiking, many people got on their bikes.19 In the city of Barcelona, the levels of cycling are 10% higher than pre-pandemic levels.<sup>20</sup> In the French capital, Paris, cycling is estimated to have grown by 70% since the spring of 2020.<sup>21</sup> These increases have been supported through government policy and infrastructure projects. All across Europe, cities spent a combined €1 billion on improving cycling infrastructures<sup>22</sup> during the pandemic, creating over 1,000 km of cycle lanes, low traffic neighbourhoods (LTNs) and car-free streets.

Much of this infrastructure will stay in place so people can continue to benefit from safe and accessible walking and cycling routes, as well as the health benefits that come from exercise and lower levels of air pollution. And people are keen that these measures stay in place long after the pandemic has subsided. A YouGov survey of adults across 21 European cities<sup>23</sup> found that nearly two in three people do not want to go back to pre-pandemic pollution levels after experiencing clean air in their cities. Sixty-eight percent of those polled<sup>24</sup> demanded protection from air pollution, even if it means preventing polluting cars entering city centres. There's a clear mandate from the public to accelerate the modal shift further and kick cars out of cities for good.

While the modal shift in transport is clearly underway, it is far from complete. The pandemic has given us a taste of how moving around differently can improve our lives, but to lock-in these sustainable behaviours for the foreseeable, we need to see continued investment into active travel alongside **targeted attempts to rid our cities of cars**.<sup>25</sup> As the world emerges from the pandemic, there is a window of opportunity to plan transport differently. We must encourage more sustainable modes of transport and, where possible, fewer trips, as well as bolstering digital infrastructures so that virtual and remote working can continue to blossom.



# CARGO BIKES



The pandemic, and the lockdowns that sought to halt its spread, caused huge disruption to global supply chains. As the world was told to stay at home, people had to turn to the world of e-commerce to provide them with many of the necessities they needed while lockdown lasted, from food to medical supplies.

The apparent convenience of e-commerce often hides the complex and far-reaching distribution chains that make it possible. And, more importantly, it overlooks the environmental and social costs of the logistical operations behind them, that create traffic congestion, take up space and have a big impact due to their carbon emissions and air pollution. The impacts of the so-called 'last mile' that takes goods to people's front doors also delivers these costs to the heart of communities. As the value of the global e-commerce market rose to **\$27.7 trillion during the pandemic,**<sup>1</sup> the demand **for last mile, on demand delivery also skyrocketed.**<sup>2</sup>

# The push to cut pollution on the 'last mile' delivery in lockdown



Fortunately, many companies and local governments saw this pandemic-induced growth as an opportunity to break with the past. The terrain for these last mile logistics changed: many cities and local governments used the lockdowns as an opportunity to reimagine the streetscape, giving over more space to bicycles and pedestrians, or banning cars from certain streets altogether. Many polluting delivery vans could no longer glide through cities unimpeded – they had to find a new way of getting from A to B.





On cue, the cargo bike arrived – in both its electrically assisted and purely pedal powered versions – to clean up and decarbonise last mile logistics. Of course carrying cargo on bikes used to be **the norm**<sup>3</sup> in many countries before the rise of motorised transport, and still is in many. It has always been widely used in parts of the world where owning cars and trucks is less common. But cargo bikes today with new users are re-gaining space and starting to displace polluting vehicles on our streets.

The Canadian city of Montreal used the pandemic as an opportunity to expand its urban delivery initiative.<sup>4</sup> Local merchants throughout the city were given access to cargo bike deliveries, as part of a project developed by the City of Montreal, the Montreal Commercial Development Companies (SDC), Coop Carbone and Jalon Montreal. They could organise and track deliveries through a secure platform and at the height of the pandemic, the cargo bike scheme was supporting neighbourhood bookstores, hardware shops, bakeries and fruit sellers.<sup>5</sup> This scheme moved within the first year from being a temporary fix to being a permanent part of the city's infrastructure. In London, the **Bikeworks delivery service** shifted its focus during the pandemic to ensuring critical deliveries for vulnerable residents and businesses.<sup>6</sup> many of which would not be able to be reached in time using traditional logistics. Due to the significant demand for their service, they had to expand their cargo bike fleet.

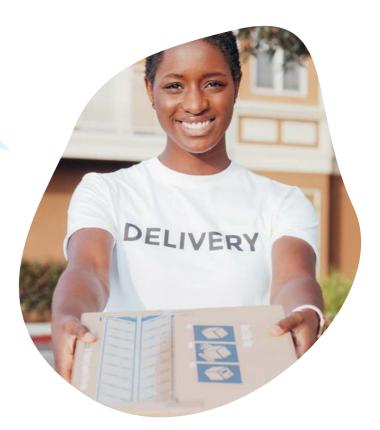
Cargo bikes are delivering serious environmental savings and making streets more people-friendly. An electric cargo bike in London **can deliver 60% faster than vans in busy urban centres, achieving higher average speeds, and successfully and safely delivering ten parcels in an hour**<sup>7</sup> to a polluting van's six. When compared to a diesel delivery van, an e-cargo bike **cuts emissions by 90%**.<sup>8</sup> A similar study in the city of Toronto found that replacing a van with a cargo bike **saved 1.9 tonnes of CO<sub>2</sub> every year**.<sup>9</sup> If a wholesale swap between vans and cargo bikes took place in urban centres, the emissions savings would be vast.

"As home deliveries have skyrocketed since the Covid lockdowns, we urgently need to put on the brakes and reevaluate how goods move through our cities. E-cargo bikes are one solution that we can all get behind. They're often faster than cars or vans, can improve our mental and physical health, and reduce our carbon footprint."

Hirra Khan Adeogun, Car Free Cities

60% FASTER

Alongside the environmental benefits are the financial gains. Cargo bikes' ability to use both roads and cycling infrastructure means that journey times can be cut by between 25% to **50%**.<sup>10</sup> And this is without taking into account the traffic caused by collisions and roadworks, so cargo bikes can offer businesses greater reliability than vans. As they are smaller and more agile, cargo bikes can also get closer to their destinations and into areas that are completely cut-off from cars so that no business's customer is beyond reach. Some estimates of the financial benefits to businesses range from 70% to 90% cost savings<sup>11</sup> when compared to a reliance on delivery vans, but this would obviously depend on the type of business and the degree to which they adopt cargo bikes.



The financial benefits for businesses also come in the form of happier, healthier employees. **A carpentry business in Oslo**<sup>12</sup> decided to ditch their diesel vans over fears of rising costs and replaced them with cargo bikes. The business quickly noticed that this **move improved the health and fitness of their employees and contributed to a decline in the time taken off** with illness.<sup>13</sup> Another study found that the **health benefits of cycling are 11 times larger than the risks**<sup>14</sup> and the societal benefits are even larger due to the reduction in air pollution and traffic accidents.

As the streetscape has changed in response to the global pandemic, and the way in which we move around has been transformed, **the cargo bike offers businesses a post-pandemic win-win.**<sup>15</sup> They save money, improve the health of their employees, and they cut emissions and air pollution. The pandemic has provided the incentive to pivot away from the van and towards the cargo bike; but we need to build on these trends to ensure that the cargo bike is here to stay.

# **COMMUTING (NOT) TO A HEALTHIER AND HAPPIER FUTURE**

The global pandemic not only transformed how we work, but also where and how we get to work. For many people that were instructed to work from home, and others who were told not to work at all, the daily commute became a rapidly fading memory overnight. The impact was instant: sharp falls in both road traffic and road deaths<sup>1</sup>, cleaner air<sup>2</sup>, empty commuter trains<sup>3</sup>, and inner-city eateries issuing profit warnings as people saved money by making their own lunches at home.<sup>4</sup>

While some have returned to the office, many are still working from home and 'blended working' is becoming the new norm with



**"Turning a regular commute into a more occasional commute has** been life changing in many ways – I am healthier, less stressed and more productive than ever. I walk the dog before work, pop into the garden between meetings, or just do my conference calls with an eve on the bird feeder instead of staring at another concrete wall now realise the stress generated by train delays and cancellations. queues in grubby tunnels, packed tubes full of viruses and angry fellow passengers was ridiculous. That's not to say there is no value in going to an office – every time I do. I get a real lift from the incidental conversations and laughs that you just don't get on conference calls. But it's definitely not necessary every day anyone who is an office worker, ever again. And so much better for the planet that my car stays parked outside the house and I make my own coffee. In a reusable mug." Judy Mackenzie Stuart, Chief Knowledge Officer, Bryan Cave Leighton Paisne

benefits to both employers and employees, as office-based workers travel into work at most only a few days a week. Commuting numbers paint a dramatic picture. The Bay Area Rapid Transit (BART) system that moves commuters around the San Francisco Bay Area hovering at between 25 and 30 per cent of its pre-pandemic daily ridership<sup>5</sup> in late 2021. The Parisian public transport authority is never expecting to see pre-pandemic levels of daily travellers ever again.<sup>6</sup> As of September 2021, half of British workers were still working from home at least some of the time, with 60%7 of all respondents wanting to see remote working as a permanent feature going forward.



The rise of remote working has sounded the death knell for the daily commute – but this came at a time when the average commute - often driven by lack of access to affordable housing - was actually getting longer in many places. In 2019, the average one-way commute in America increased to a new high of 27.6 minutes.<sup>8</sup> But roughly 25 million American workers spend more than 90 minutes<sup>9</sup> getting to and from work every single day. In the UK in 2018, the average roundtrip commute reached new highs of 59 minutes.<sup>10</sup> For 10% of American workers in 2018, a 60 minute commute was a daily reality.11 In both Milan and Manila<sup>12</sup>, the average commute is well over an hour.

Affordable housing shortfalls and the concentration of jobs and industries gave rise to pre-pandemic trends that are unfathomable now: the super commuter and the mega commuter.13 The super commuter 14 is someone that travels more than 60 minutes per leg of the journey, while a **mega commuter**<sup>15</sup> is someone who travels 90 minutes plus or more than 50 miles on just one leg of the journey. According to the U.S Census, there were roughly 600,000 mega commuters<sup>16</sup> in 2017.

The internet was briefly full of hellish tales of 2:15am alarm clocks and six hour commutes<sup>17</sup>, but COVID-19 soon saw an end to that. And given the benefits of canning the commute, perhaps it would be wise not to let it return. Why? Commuting makes us unhappy. A 2020 study found that longer commuting times<sup>18</sup> were associated with lower job and leisure time satisfaction, increased strain, and poorer mental health. Those people with a commute of more than 90 minutes are far less likely to have an active social life or exercise frequently, often leading to reports of loneliness and depression.<sup>19</sup> One study from Sweden even found that those with longer commuting times, perhaps unsurprisingly, were at a higher risk of divorce and separation.<sup>20</sup>

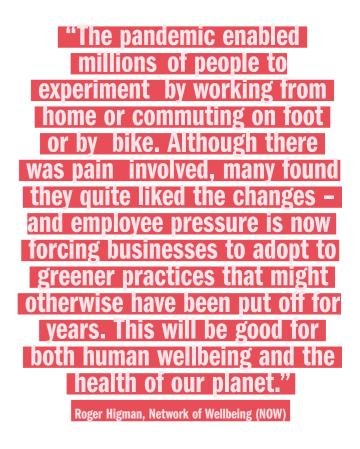
Commuting makes us unhealthy too. Having a longer commute means people are less active and more sedentary, putting them at higher risk of obesity and high blood pressure.<sup>21</sup> One study found that people with a daily commute of 30 miles plus<sup>22</sup> were more likely to suffer from obesity. Alongside these health issues are the well-documented increases in sleep deprivation<sup>23</sup> and stress<sup>24</sup> that long commutes can contribute towards, opening up a pandora's box of physical and mental health problems.

The long commute will not be missed; and people and planet are set to be happier and healthier without it.

A long daily commute can also undermine the health of the planet. Globally speaking, roughly a guarter of energy related carbon emissions come from travel.<sup>25</sup> In countries like the UK<sup>26</sup> and the **USA**<sup>27</sup>, the transport sector is the largest source of emissions - far more polluting than the energy or agricultural sectors - and emissions from transport are, in some contexts, accelerating.28 Road vehicles are the greatest villain for emissions, making up nearly three-quarters of transport emissions.<sup>29</sup> Beyond the emissions is the air pollution that commuting contributes to, which is responsible for around 40,000 deaths a year in the UK<sup>30</sup> and costs the British economy, through health issues and lost productivity, roughly £20 billion every year.31

But just as the global pandemic made long commutes seem like something alien, it also brought the opportunities and benefits of encouraging alternative modes of commuting into sharp focus. Active commuting, where people set out to their place of work on foot or bike, has increased alongside requirements to socially distance and in response to pop-up active travel infrastructure. Active commuting brings a wealth of benefits: lower risk of heart disease, cancer, and diabetes<sup>32</sup>, as well as **boosts to mental health.**<sup>33</sup> Employers that sought to cash in on this shift in mobility patterns by encouraging active travel or the use of e-bikes and scooters have shown that such initiatives can deliver substantial emission cuts<sup>34</sup> and boosts in employee wellbeing.<sup>35</sup>





Locking in these changes is essential if we are to banish the long, tiring and stressful commute to the pre-pandemic past. The long commute will not be missed; and people and planet are set to be happier and healthier without it.

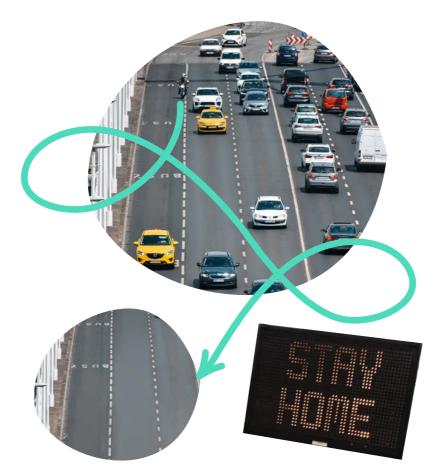
Commuting (not) to a healthier and happier future

# THE GREAT REALLOCATION **GIVING URBAN SPACE BACK TO PEOPLE**



High levels of polluting car use have been locked into the lives of many because towns have been planned to favour and encourage cars. But, when the pandemic took hold, the amount of public space we dedicate to cars throughout our towns and cities suddenly became clear for all to see. As traffic numbers plummeted in response to 'stay at home' orders, and social distancing measures were introduced to limit the spread of the virus, pedestrians struggled to pass each other on the pavement and councils found it necessary to create temporary cycle lanes, while roads stood empty, under-used and over-resourced. In many cases it accelerated existing plans<sup>1</sup> to reduce car numbers.

Local and national governments were quick to respond to this pro-car bias in public space with a range of pop-up cycling and walking initiatives. According to research from the science think-tank MCC.<sup>2</sup> these temporary infrastructures boosted cycling levels across European cities by between 11% and 48% in the first few months of the pandemic<sup>3</sup> at a cost of €1.7 billion.<sup>4</sup> The same study concluded that, in the space of just a few weeks, the European continent surpassed many of the active travel goals that were set for 2025 and beyond.<sup>5</sup>



The global pandemic has accelerated initiatives to get cars out of towns and cities – but the battle is far from over



The city of Rome, which was hit hard in the first wave of the pandemic, climbed to the top of the table for active travel infrastructure, putting in place 150 kilometres of temporary and permanent cycle infrastructure.<sup>6</sup> Rome is in good company, with London, Paris, Milan, Brussels, Lisbon, Barcelona, Berlin and others all reallocating significant space for active travel and permanently expanding pleasant, separated, and protected infrastructure. Berlin created new cycling and walking infrastructure at breakneck speed throughout the German capital. Within just 10 days,<sup>7</sup> new measures were introduced to make cycling more accessible and safe for Berliners, using the shifts in mobility patterns as an opportunity to re-think how people move around and interact with the city.

Further afield, local governments gave roads back to people. In the Californian city of Oakland, 74 miles of city road was given over to cyclists and pedestrians.<sup>8</sup> Bogota, in Colombia, opened up 76 kilometres of bike lanes<sup>9</sup> to help ease congestion and relieve the pressure on public transport.

"One of the strongest impediments to changes in consumption patterns is the social and physical contexts that shape our everyday lives. In the case of transport, infrastructure lock-ins have made it easier to park a car than to find a bus stop and safer to drive rather than cycle. What the pandemic has shown us is that we have prioritised the wrong type of infrastructure. All of that needs to be reversed, so we start investing in future proof infrastructure – not iust because of the climate emergency, but because walking, biking, taking public transportation, and investing in and appreciating local communities, improves our wellbeing and social cohesion." Lewis Akenji, managing director at the Hot or Cool Institute

Reorienting infrastructure towards walking and cycling presented 'win-win' opportunities for governments. Before the arrival of a working vaccine, governments were desperate for policies that would slow the spread of the virus and help keep citizens safe and healthy. Helping to encourage and maintain outdoor travel and social distancing measures provided a guick way of slowing the spread. Multiple studies concluded<sup>10</sup> that transmission of the virus was incredibly unlikely when travelling by foot or bike, compared with the potential for spreading within passenger vehicles or on public transport.

In addition, encouraging physical exercise through active travel increases vitamin D intake<sup>11</sup> and strengthens the immune system<sup>12</sup> - both of which are important for fighting off COVID-19 and any future pandemics. Studies also linked exposure to air pollution<sup>13</sup> with experiencing more severe impacts from the virus, and higher death rates<sup>14</sup> among those infected.

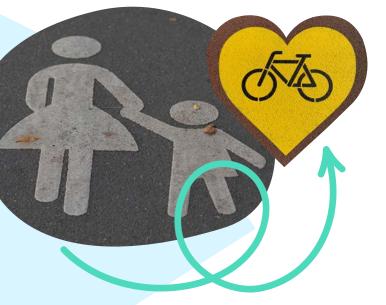
Further public health gains were made by the drastic and sudden improvement in air guality in cities around the world. As the public limited car use, energy demand dropped and infrastructures pivoted to support cycling and walking, the air became clearer.

According to the World Meteorological Organization (WMO), air quality in South East Asia saw a 40 per cent reduction <sup>15</sup> in the level of harmful particulates in 2020. Across Europe, the illnesses and disease linked to exposure to high levels of air pollution cost society approximately £10 billion in 2018,16 which highlights the vast opportunity to lock-in savings by permanently reallocating space to people rather than cars. China and North America<sup>17</sup> also saw drastic improvements in air quality during the onset of the pandemic, although some of these gains were undone by the return of traffic after the peak of lockdowns.

Giving public space back to pedestrians and cyclists has also saved lives. Low-traffic schemes installed during the pandemic in the UK, for instance, halved the number of traffic accidents.<sup>18</sup> At the same time, these schemes have been proven to increase the uptake of cycling, especially among inexperienced cyclists, women and younger cyclists, while actively discouraging the use of cars.<sup>19</sup> In fact, just by removing cars and limiting their road access makes everyone feel safer because, as one UK survey found, 66% of respondents felt it was normally too dangerous for them to cycle on the roads.<sup>20</sup> It shows how, to rapidly reduce transport emissions as part of transitioning to a low carbon economy, making people feel safe to walk and cycle around their local areas is vital.



... and dedicated to play



But it's not just about travelling from A to B. The reallocation of streetspace during the pandemic created space for that most human of endeavours: play. Lockdown restrictions were particularly tough for those in cities and towns without access to any private green space. In the city of London, 21% of households have no garden. Aptly named 'Play Street' initiatives, where roads are closed off from cars and dedicated to play, improved the physical and mental health of children, which both suffered throughout the lockdowns. One study in Bristol<sup>21</sup> found that children were three to five times more active during play street days, compared to a normal day. It's also been suggested that introducing permanent play streets would be a way to keep children active, as the return to schools has seen an increase in lethargy and anxiety among the voung.<sup>22</sup>

The pandemic marked the beginning of a 'Great Reallocation' - where city streets were given back to people. While some of these pop-up schemes have since had funding reduced or completely removed, many have stood the test of time, shown how guickly people can adapt, set a new normal and continue to deliver palpable benefits for people and planet. Milan followed up with approval of a plan to provide Italy's most populous metro area with 750 km of separated bike lanes and Paris is considering regional expressways for bikes that could make longer distance commuting for suburban Parisians both feasible and desirable. We have an opportunity now to capitalise on what we know about reducing congestion by cutting space for cars to 'evaporate traffic',23 and improving both our health and air quality by cycling and walking more.

#### The great reallocation – giving urban space back to people

# THE DEATH OF BUSINESS TRAVEL



How businesses realised they don't have to meet everyone face to face any more, saving time and energy, while improving employee wellbeing

Lessons from Lockdown – Unnecessary Travel

40

The global pandemic may have sounded the death knell for business travel. While it's too soon to tell for certain, the initial numbers suggest that we may have seen the peak of business travel in 2019. **One survey of 45 large businesses in the US, Asia and Europe**<sup>1</sup> supports this claim, showing that up to 84% of firms plan to spend less on travel after the pandemic subsides, whenever that may be.

Those businesses that said they would be cutting corporate travel budgets are eyeing up reductions of between 20% and 40%, with roughly two in every three businesses curtailing both internal and external in-person meetings too. On a cumulative scale, this could mean that spending on corporate trips slides to **\$1.24 trillion by 2024,**<sup>2</sup> way off its 2019 peak of \$1.43 trillion. In 2020, US businesses' **travel budgets fell by 90% or more.**<sup>3</sup>

The reasons behind this decline in business travel are relatively simple to follow: once the pandemic took hold and populations were required to work from home wherever possible. business travel became unnecessary. The meteoric rise of Zoom and Microsoft teams made connecting, collaborating and working with people all over the world an accessible reality for millions of people. It also became more socially acceptable; these virtual platforms had been in use by some organisations for some years, but face-to-face meetings were still considered a more respectful and appropriate way of communicating for the majority. Suddenly, the offer of an online meeting was not only acceptable; it was a relief.





Even businesses that had relied on physical interaction and large amounts of international travel pivoted to online with remarkable results. Europe's biggest paint manufacturer, Akzo Nobel NV, had previously relied on its executives visiting all 124 of its factories to ensure the manufacturing process was running smoothly.<sup>4</sup> During the pandemic, they managed to do this with the help of an augmented reality headset from their HQ in Amsterdam, without taking a single flight. There are no plans to go back to how it was.

While technology made work without travel possible, there is also the cost saving imperative that businesses are beginning to realise. Some of the largest companies in the world – Google, Amazon and HSBC – each reported **cost savings from reduced business travel in the region of \$1 billion**.<sup>5</sup> Realising cost savings as substantial as this, with minimal disruption to everyday operations, will provide ample reason for pause when weighing up a return to pre-pandemic levels of corporate travel.

And alongside the bottom line comes growing corporate environmentalism, driven largely by financial reporting requirements and the need to compete in recruitment – environmental track records are important when attracting younger talent in particular. Every week another large business publishes their plans to reach net zero by the middle of the century. For many of these transnational firms, cutting business air travel is the quickest and most impactful way they can reduce their corporate carbon footprint. Approximately 90% of business travel emissions come from air travel.<sup>6</sup> and business travel emissions up to three times more emissions-intensive than economy class.<sup>7</sup> Corporate giants like Zurich Insurance Group AG, Bain & Company, and S&P Global have all published plans to cut business travel emissions in the coming years, with Zurich aiming to reduce emissions by as much as 70% by next year.<sup>8</sup>

"When we held the Cambridge Sustainability Commission on Scaling Behaviour Change, we decided not to fly everyone in. Instead we held it online and it worked really well. It gave us more flexibility on timing found people were more available to have in-depth conversations.

### The financial cost and carbon budgets was also of course dramatically lower. This is a great lesson to take from lockdown – there really is scope to cut back on unnecessary travel."

Peter Newell, Prof International Relations, University of Sussex

But while these headline figures illustrate the industry- or business-wide effects of forgoing flying, they ignore the lived experience of many of these seasoned business travelers – some of which have discovered a new lease of life during the pandemic. Despite the social status that comes with traveling with work, frequent and intense business travel is associated with a range of mental wellbeing issues. One study found a clear link between international business travel and poor mental health,<sup>9</sup> with 45% of survey respondents saying they felt more stressed on work trips and 31% saying they found themselves emotionally exhausted. Just over a quarter of respondents<sup>10</sup> had experienced anxiety and depression due to business travel. As many employees adapt to a new, more grounded work-life balance, the desire to travel for work may never recover.



The death of business class travel will also fundamentally challenge the business model of airlines and the broader aviation industry. While frequent business fliers account for as few as one in ten airline passengers, this contingent brings in **up to three-quarters of airlines profits**.<sup>11</sup> If peak business travel is behind us, then airlines will need to figure out new ways of making up for lost revenues.

Other industries that rely on business travel have started to adjust. Hotel chains such as **CitizenM and Accor**<sup>12</sup> decided to market and rent out their empty rooms throughout the lockdowns as temporary workspaces for those whose homes were not suitable for remote working. These hotels are also trying to lure commuters that are wary of using crowded trains every day, offering 'commuter rates' for those who would like to stay throughout the working week and leave their belongings over the weekends.

It's clear that the pandemic has galvanized a debate over the necessity of business travel. But as the economic, environmental and social benefits of reduced business travel begin to materialize, the debate may be heading to a swift conclusion: most business travel is unnecessary in a warming, post-pandemic world.



# THE SHIFTING TERRAIN OF **URBAN MOBILITY**

The pandemic has fundamentally changed the way we move around cities, but micromobility is set to play a starring role as cities open up once more



From travel restrictions and border closures, to the pedestrianisation of roads and the creation of pop-up cycle lanes, our mobility has been forever changed by COVID-19 and the lockdowns it triggered. The way in which people move around had to change in order to limit the spread of the virus and keep themselves, and their loved ones, safe.

There was a switch between different forms of low-carbon mobility, for example, from public transport to walking and cycling, but the pandemic coincided too with the arrival of electric micro-mobility - the new scooter and bike kids on the block. Now, evidence is beginning to percolate through that these new arrivals - apart from being flexible and clean ways of getting around - are also boosting local businesses and cultural attractions, as well as increasing access to jobs and opportunities.

These shifts in mobility create some problems, but also new opportunities and fresh questions. Although recent scientific evidence suggests that virus transmission on public transport was in fact low,<sup>1</sup> the pandemic saw a big drop in people using trams, trains and buses in response to official advice on social distancing. In many places public transport faces a challenge to make up for income lost due to the drop in passenger numbers, so it can provide the services necessary to deliver emissions cuts in cities around the globe.



**"The pandemic forced people** away from public transport and disrupted their daily commutes. This opened many people up to new experiences and some were willing to try newer mobility options, like e-scooters. The convenience and cost of an electric scooter is unparalleled – especially amid the sky-high fuel prices and expected increases in rail and bus fares. If we are serious about getting cars off the roads and tackling air pollution, we need to lean into the convenience and value that micro-mobility options can provide as genuine low carbon transport options."

Stewart Montgomery, owner of The scooter.shop

But, as authorities work out not just how to restore, but build the fortunes of public, mass transit systems, other modes of transport are becoming available to get people around cheaply, safely and sustainably. Electric mobility or e-mobility is filling a gap, tapping unmet demand and increasing the range of car-free choices for getting around. This is the use of electric vehicles, such as cars and vans, but also micro-mobility options like e-bicycles, e-scooters and bike sharing platforms. Basically, anything with wheels that is powered by electricity.

The pandemic bit just as the electric micromobility industry was beginning to accelerate. At the rates of growth forecast in 2019, the micro-mobility industry was set to be **worth between \$300 and \$500 billion by 2030.**<sup>2</sup> But, like most sectors of the economy, it took a major hit at the onset of the global pandemic, with ridership falling by 60-70 per cent. Despite this set back, e-scooters and e-bikes are set for a strong post-pandemic recovery because of the benefits they offer commuters and more casual users, **as well as winning over the new users that tried micro-mobility for the first time during the pandemic.**<sup>3</sup> A report from the North American Bikeshare and Scootershare Association (NABSA)<sup>4</sup> found that approximately half of the shared micro-mobility systems surveyed saw increases in their first time riders during the pandemic. This was strongest among bike sharing platforms: in 2019 North American bike sharing platforms aided seven million trips in 2019.<sup>5</sup> During the pandemic, this had risen to ten million trips<sup>6</sup> as these mobility options continued to provide services in the face of public transport closures. In particular, essential and frontline workers made extensive use of shared micro-mobility options - and many mobility providers in cities such as Washington **D.C. and New York**<sup>7</sup> sought to help fill the gaps left by public transport closures.

While there is sometimes concern that micromobility could substitute for other low carbon forms of transport, such as walking and pedal powered cycling, evidence suggests that it is well placed to help rid cities of cars. Estimates vary according to the specific geography of cities, but one pilot in Munich found that micro-mobility could save an estimated 80,000 tons of car-based CO2 emissions compared with today.<sup>8</sup> This is equivalent to the annual CO2 emissions of about 10,000 to 15,000 German citizens.9 In addition to the emissions savings, there would also be a significant drop in air pollution, which was responsible for 1.8 million deaths in cities around the world in 2019.10

walking and pedal power cycling

micro-mobility

less air pollution

"One of the few genuine positives to come out of the pandemic is the way it has forced people out of their ingrained travel habits - most obviously in the case of work meetings over zoom, a shift that's expected to permanently alter travel patterns with big benefits for the climate. The boom in micro-mobility and first time users of shared cycle hire schemes could prove just as significant because of its potential to permanently change habitual behaviours people undertake every day. Evidence shows that the hardest aspect of achieving behaviour change is taking the first step and just trying something new and unfamiliar, so one of the most effective interventions is to give people the opportunity and the impetus to do that - which the last two years has provided."

Leo Murray, director of innovation at Possible



As urban economies begin to recover from the damage wrought by the pandemic, micromobility services can play a decisive role in improving commute times for those that are employed and in helping those that are not employed to access a greater number of employment opportunities. A study conducted by Micromobility Coalition and DePaul University found that when paired with walking and transit, micro-mobility provided access to **44 per cent more jobs within a commute of 45 minutes or less**.<sup>11</sup> In the city of Boston, micro-mobility services – alongside walking and transit – **allowed people to access 60 per cent more employment opportunities**.<sup>12</sup>

Micro-mobility can also help support local businesses and cultural attractions, which were decimated by the pandemic. A study by scooter-sharing platform, Lime, **found that 72 per cent of e-scooter riders used them to visit local shops and attractions**.<sup>13</sup> Another study, from Emory University, found that shared mobility schemes helped increase sales for food and beverage shops, **contributing an extra \$13.8 million to the local economy**.<sup>14</sup> Combining micro-mobility projects with the broader push to pedestrianise large swathes of urban areas can help foster flourishing and vibrant local economies.

Both cities and investors are eyeing up micro-mobility as a way of driving down emissions and air pollution as the world emerges from the global pandemic. Last year was a record breaking year for investment in mobility startups throughout Europe, with **€2.2 billion raised**.<sup>15</sup> Across China, Europe and the USA, the shared mobility market is worth an estimated \$60 billion.<sup>16</sup> Both in spite of the pandemic, and because of it, electric micro-mobility is set to play an important role in the modal mix for ways of getting around urban centres as cities try to balance decarbonisation, air pollution and opportunity.

# THE 'STAYCATION' IS HERE TO STAY



When international travel was put on hold, people found the pleasure, adventure and rejuvenation of holidays far closer to home





Holidays are sacred for many, and have long been so. The clue is in the word's origin, from the observance of 'holy days', where citizens in the Middle Ages embarked on pilgrimages to religious sites, and those that didn't travel were given instead days of much-needed rest.

Fast forward five centuries and – for those who can afford to have holidays – not much had changed – until the global pandemic took hold and holidaying rapidly reinvented itself. When COVID-19 began to spread, the dramatic growth of global tourism, which had gone unimpeded **since the end of the Second World War,**<sup>1</sup> suddenly halted. Borders closed, governments introduced lockdowns and the global tourism industry came to a standstill with airlines grounded.

Restrictions didn't dampen the human desire to travel – but it did prompt reflection. The demands of modern life, where long working hours and employee burnout are common, cemented the sanctity of holidays as a time for relaxation, repair and rejuvenation. People plot and plan for weeks, imagining the possibilities of exotic places, and willing to pay for the privilege. In 2018, tourism was worth around £1.3 trillion – **about 2% of global GDP**<sup>2</sup> – and **tourist numbers reached 1.44 billion.**<sup>3</sup> Some countries have become reliant on tourism, either as a major industry – like many Mediterranean destinations – or as pretty much the only industry – like some tropical island nations.



But overnight a foreign holiday became an impossibility - and people were instead invited to find adventure and respite much closer to home. Many people simply stayed at home, taking day trips to beauty spots or sleeping out if they had a garden. All across Europe people flocked to their local pleasure spots to find some relaxation amid the uncertainty. According to industry research, looking at 16 global holiday hotspots,<sup>4</sup> an average of 76% of all holiday bookings in 2021 were for so-called 'staycations' (which can mean holidaying either at or near to your home, or in your own region or country) an 18% increase on the previous year. In Hong Kong, people splashed on the city's many upmarket hotels as a way of taking a holiday, as the city's lockdown kept visitors away. In the UK, bookings and enquiries for campsites surged by 300%<sup>5</sup> and caravan sales grew by 47% in 2021 alone.6

Once the staycation became the only option, governments were quick to cash in on the new reality to boost flagging economies. In the Canadian state of Ontario, residents are able to claim a **'Staycation Tax Credit'**<sup>7</sup> which gives them a 20% personal income tax credit on accommodation through to the end of 2022. Ireland introduced a similar scheme in 2021 with their **'Stay and Spend Tax Credit'**,<sup>8</sup> which allowed Irish citizens to claim tax back on accommodation, food and non-alcoholic drink. "In a world of increasing crises, the focus on domestic tourism should not remain a short-term emergency solution in reaction of COVID-19, but become an integral part of all tourism strategies. Its sustainability balance is usually much better than that of international travel: In general, domestic travelers consume more local products and travel shorter distances."

#### Antje Monshausen, Tourism Watch

It seems that staycations are here to stay. Recent data shows that **almost half of holiday makers in the UK**<sup>9</sup> are choosing a staycation in 2022, with the beauty spots of Cornwall and the Lake District set to push France and Spain off the top spot for UK holidaymakers. A similar trend can be found in Sweden, where record numbers of Swedes have rushed to get their hands on summer lodges in anticipation for continued staycations, **driving prices up by 12% on the previous year.**<sup>10</sup> A staycation also gives the planet a break. Global tourism accounts for 8% of global greenhouse gas emissions,<sup>11</sup> although this figure neglects the additional non-carbon dioxide impacts of aviation. The source of emissions from frequent leisure flights are also deeply inequitable, often generated by the wealthiest sections of humanity. Bevond air pollution, global tourism can **put enormous** strain on water-scarce regions due to concentration of travellers, <sup>12</sup> generates eye-watering amounts of waste, 13 much of which ends up in landfill, and can suck wealth out of vulnerable local economies as well as any extractive industry. While staycations are not always kind to the environment, they are generally less energy and resource intensive than foreign holidays in far-flung places.

Holidays usually offer a chance to pause, but those that chose to holiday closer to home found themselves reflecting on the fundamentals of travel and tourism. Staycations have challenged the dominant cultural notion of what a holiday is, why it is needed and who it benefits. A **study from Norway**<sup>14</sup> revealed that one in three respondents found staycations caused them to reflect on whether they should travel as much as they had before. The **same number of people**<sup>15</sup> reported that a staycation had given them a clearer conscience on environmental issues. In Germany, holidaying on a houseboat is in vogue with **bookings up 60%.**<sup>16</sup>





"There are many things that are good for our wellbeing that can be found closer to home: taking quality time out to connect with our loved ones, spending time outside in nature and taking the time to be mindful of the everyday beauty around us. All of these things can be good for the wellbeing of people and the planet."

Florence Scialom, Network of Wellbeing

These sentiments have shown the cracks in the global travel industry – and through these cracks a new form of holidaying has become visible. This is a **more mindful**, **less impactful**<sup>17</sup> way of getting away, finding far closer to home the solace and rejuvenation that makes holidays such an integral part of modern life. The pandemic has caused people to return to more basic, essential and non-negotiable needs. Taking time out, either alone or with loved ones, is such a need: but we've discovered that getting away need not cost the earth.

# FINDING THE NATURE CURE



From tree-lined streets becoming places of refuge, to wildlife re-emerging in cities and new calls for equal access to green space, the pandemic brought us a new awareness and appreciation of the many benefits of places where we can feel closer to nature. Many people forced to stay at home suddenly had more time and less space. Parks became valuable places for daily exercise, dance studios, outdoor gyms, playgrounds for children,1 and artists' studios.2 The value of green space rose and there were calls for it to be included more effectively in planning and urban design. After all, green spaces will be imperative to how cities can prepare for climate change emergencies<sup>3</sup> by helping manage stormwater, heat stress and air quality.

For those without gardens, public green spaces were a vital lifeline bringing well known therapeutic benefits. And not only parks - one study found that in Spain, Israel and Croatia some people started using even small urban areas of greenery and tree-lined streets<sup>4</sup> as places of refuge during the pandemic when larger parks were still closed. Access to urban green space was cited as important for providing places of solace and respite, as well as for exercise and relaxation. Places where parks were closed opened people's eyes to the huge role they play and the ensuing discussion about accessibility highlighted the inequality in access to greenspace in most countries. Bringing this learning into future town planning and public financing is now of paramount importance.

### How the pandemic revealed access for all to green space and nature was essential





The figures were striking - particularly after the early strict lockdowns where people started to appreciate the short periods of time they were allowed to be outdoors. In May 2020, 36% of people in the UK responding to a government agency's People and Nature Survey<sup>5</sup> said they were spending more time outside during the pandemic than before. This rose again to 46% in July 2020, a pattern that was repeated across the world, particularly in highly **urbanised**<sup>6</sup> societies like Australia and Hong Kong. Oslo, Norway, saw a 291% increase<sup>7</sup> in outdoor recreation activity during the pandemic relative to a three year rolling average for the same days, particularly for pedestrians (walking, running, hiking) and cyclists.

The therapeutic role of green spaces has long been known. A **review in 2019**<sup>8</sup> identified 28 nature-based measures and activities used in different countries to improve health and wellbeing, from organised gardening programmes to forest bathing.9 But the past few years have seen an explosion of research finding concrete links between increased exposure to nature and not just improved physical health, but better mental health<sup>10</sup> too. This has huge implications for how transitions are planned, as mental health issues are estimated to account for as much as a third of all years lived with disability, and around 13 per cent of disabilityadjusted life-years (DALYs) lost.11 That is similar to the toll of cardiovascular disease and circulatory disorders. The beneficial effects of urban green spaces include improved mental health, reduced cardiovascular morbidity and mortality, obesity and risk of type 2 diabetes, and improved pregnancy outcomes. Access to green space provides psychological relaxation and stress alleviation, increased physical activity, and reduced exposure to air pollutants, noise and excess heat.



ere often caught between the needs of

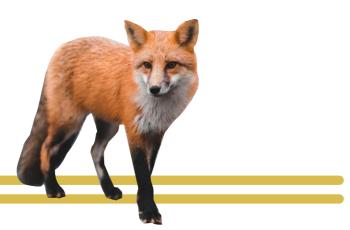
"Open spaces, particularly wild ones like the UK's south west coast path, literally saved my life when I was deep in depression. I think the pandemic has brought more and more people into a relationship with open spaces. They're so nourishing and vital to us all."

Chris Nichols, Consultant, Gameshift

A survey of 5218 responses from 9 countries<sup>12</sup> found that the severity of lockdown significantly affected mental health, and contact with nature helped people to cope with these impacts. This was particularly marked for those affected by strict lockdowns, such as in Spain, where respondents said that nature helped them to cope with lockdown measures; emotions were also more positive among individuals with accessible outdoor spaces and views containing blue-green elements (plants-water). People who could not access urban green spaces, either because the parks were closed or because of travel limitations, experienced a sense of deprivation, including increased incidences of depression and anxiety.

the population and public health concerns, and were subject to both closures and over-use, leading to the double whammy of reductions in income and higher costs. Governments and municipal authorities need to remember and use the evidence of how vital these spaces were during the pandemic; once life appears to return to normal, green spaces are rarely top of the funding list. Urban planning needs to incorporate the lessons learnt during COVID-19 in order to raise well being, reduce illness and **future-proof our communities**.<sup>13</sup>

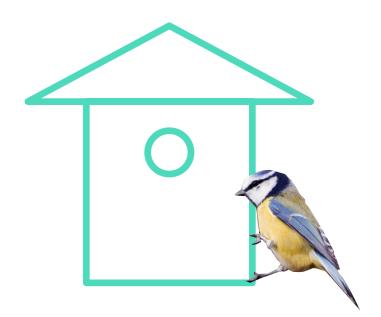
As people poured outside into parks<sup>14</sup> and gardens – or not, if they had no access – this drew immediate attention to the lack of greenspace in poorer communities and how this links to inequality and racism. Access to public greenspace became a political issue; a human right at a time of global health crisis. Research<sup>15</sup> showed that, across the United States, areas with lower income and where the majority of residents were people of colour had fewer parks and green spaces. This meant that the communities worst affected by COVID-19 also had the least nature nearby. This inequality was particularly noticeable among children, for whom outdoor play<sup>16</sup> is hugely valuable – and especially at a time when social isolation and inactivity was increasing during lockdowns.



Humans need to have access to greenspace for running about, breathing clean air and enjoying the sights and smells of nature, but parks, gardens and public green space may also play an intrinsic role in our survival. Without green spaces wildlife cannot thrive and **we depend entirely on the natural world**<sup>17</sup> for our basic needs, from clean air and water to nutrient recycling, flood defence and pollination. The pandemic enabled many of us to see what is all around us – the natural world – with new eyes and to appreciate it on a new level.

Some cities saw wild animals wandering the streets,<sup>18</sup> surprised to see that humans had apparently disappeared and people trapped at home became fascinated with whatever wildlife they could see from their windows. In the UK. charities such as the Royal Society for the Protection of Birds (RSPB) and the Wildlife Trusts saw huge spikes in web traffic.<sup>19</sup> Visits to the RSPB website increased by 69% year-on-year in March to May 2020 with 79% of those users being new to the website. In the same period, the RSPB recorded a tenfold increase in views of its Build a bird box 20 web page. People wanted to engage with nature on their doorstep in a way and at a scale not seen before.





The reawakening of our need for green space also increased the level of interest in land rights issues<sup>21</sup> and open access to wilder or farmed areas. In the UK in particular, where there is a long history of forced land enclosures taking what had previously been common land into private ownership, more people have been calling for wider access. There may be 117,800 miles of public footpath<sup>22</sup> in England but the right to walk anywhere over private land that is mountains, moors, heaths and downs exists only in Scotland – and only since 2000. UK writer and illustrator Nick Hayes' book Trespass was a surprise pandemic hit, writing honestly about intentional trespassing<sup>23</sup> on private land. The anti-racism movement has also joined the call to welcome more diverse people<sup>24</sup> into the countryside,<sup>25</sup> and even the UK charity National Trust<sup>26</sup> started to actively address the fact that many historic estates were purchased with profits from the slave trade and its reliant industries.

A just transition to a more sustainable world will require **equal rights to connect with nature**<sup>27</sup> and greenspace for all. The battle for the land varies around the world – from proving or gaining access to ownership to claiming the right to roam – but we all depend on green space and its biosphere directly for the clean air and water we need to survive. The pandemic brought this into particularly sharp focus for urban populations, where the inequality of access to green space and its many benefits became literally a matter of life and death during lockdowns. Learning from this is **already informing planning**<sup>28</sup> and provision for the future.



### Green Travel Now Means Staying Grounded

#### 1. ICAO

https://www.icao.int/sustainability/Documents/Covid-19/ ICAO coronavirus Econ Impact.pdf

#### 2. ICAO

https://www.icao.int/sustainability/Documents/Covid-19/ ICAO coronavirus Econ Impact.pdf

#### 3. Rapid Transition Alliance https://www.rapidtransition.org/resources/the-reset-series/

4.Stay Grounded https://stay-grounded.org/wp-content/uploads/2020/10/ SG Factsheet Non-CO2 2020.pdf

5. Stay Grounded https://stay-grounded.org/wp-content/uploads/2020/10/ SG\_Factsheet\_Non-CO2\_2020.pdf

6. VOX https://www.vox.com/energy-and-environment/2020/3/20/21184814/ climate-change-energy-income-inequality

#### 7. Stay Grounded

https://stay-grounded.org/wp-content/uploads/2020/10/ SG\_Factsheet\_Non-CO2\_2020.pdf

8. Safe Landing https://safe-landing.org

#### 9. The Guardian

https://www.theguardian.com/world/2020/jul/27/ covid-19-reawakens-europe-sleeper-trains

#### 10. Time Out

https://www.timeout.com/news/this-new-sleeper-train-willtake-you-all-the-way-from-stockholm-to-hamburg-022322

#### **11. SNFC**

https://www.sncf.com/en/passenger-offer/travel-by-train/ paris-nice-overnight-train-from-19-euros

#### 12. Euronews

https://www.euronews.com/2020/07/24/night-trains-overnight-rail-travel-getting-back-on-track-in-france

#### 13. Forbes

https://www.forbes.com/sites/christopherelliott/2022/02/16/ eurail-ceo-shift-away-from-short-haul-flights-makes-european-trains-more-appealing/?sh=4824f83f2baa

#### 14. Railtech

https://www.railtech.com/policy/2020/07/02/ regiojet-launches-five-country-train-to-adriatic-sea/

#### 15. The Guardian

https://www.theguardian.com/world/2020/jul/27/ covid-19-reawakens-europe-sleeper-trains

#### 16. The Independent

https://www.independent.co.uk/travel/news-and-advice/ flygskam-anti-flying-flight-shaming-sweden-greta-thornbergenvironment-air-travel-train-brag-tagskryt-a8945196.html

#### 17. Swedavia

https://www.swedavia.com/visby/press/ swedavias-traffic-statistics-for-july-2020-passenger-volumedown-87-per-cent/#gref

18. Spotify https://open.spotify.com/ album/7BtDGXxR0eVKXJb7t3jdfr?highlight=spotify:track:6AmXtz8CoUpH0AXvRSucLx

#### 19. Forbes

https://www.forbes.com/sites/enriquedans/2021/06/28/ when-it-comes-to-travel-do-you-have-flygskam-or-are-youtgskryt/?sh=55b9d1223e38

#### 20. T and F Online

https://www.tandfonline.com/doi/epub/10.1080/14616688.20 21.1943703?needAccess=true

21. T and F Online https://www.tandfonline.com/doi/full/10.1080/15487733.202 2.2043682

#### 22. ORA

https://ora.ox.ac.uk/objects/ uuid:1d10162e-137a-438a-9ea3-1df6e198c974

#### 23. T and F Online

https://www.tandfonline.com/doi/full/10.1080/15487733.202 2.2043682

24. T and F Online https://www.tandfonline.com/doi/full/10.1080/15487733.202 2.2043682

25. T and F Online https://www.tandfonline.com/doi/full/10.1080/15487733.202 2.2043682

#### 26. European Investment Bank

https://www.eib.org/en/surveys/climate-survey/3rd-climatesurvey/what-to-give-up-for-climate-change.htm

#### 27. European Investment Bank

https://www.eib.org/en/surveys/climate-survey/3rd-climatesurvey/what-to-give-up-for-climate-change.htm

#### 28. Demos

https://demos.co.uk/wp-content/uploads/2021/10/Climate-Consensus-Report.pdf

### The Joy of Slow Travel

#### 1. Rapid Transition

https://www.rapidtransition.org/stories/the-great-staycation-how-the-coronavirus-pandemic-could-push-a-rapid-transition-to-creative-domestic-holidays/

#### 2. Do Something

https://www.dosomething.org/us/articles/ how-to-plan-a-covid-19-staycation

3. Youtube

https://www.youtube.com/watch?v=CBmFPA EeW4

#### 4. Good Housekeeping

https://www.goodhousekeeping.com/uk/lifestyle/ a33560852/nadiya-hussain-staycation-camp-garden/

5. Raleigh https://raleighnc.gov/play-anywhere

6. Facebook https://www.facebook.com/pages/category/Hiking-Trail/ Hiking-Hens-104801785103349/

7. The University of Manchester https://www.manchester.ac.uk/discover/news/ pandemictours/

#### 8. EuroVelo

https://pro.eurovelo.com/news/2021-05-19 leisure-cyclinggrew-last-year-in-germany-the-netherlands-and-franceproving-that-cycle-touring-is-a-safe-and-attractive-optionfor-many-europeans

9. EHL Insights

https://hospitalityinsights.ehl.edu/what-slow-tourism

#### 29. Demos

https://demos.co.uk/wp-content/uploads/2021/10/Climate-Consensus-Report.pdf

#### **30. IPSOS**

https://www.ipsos.com/en/global-survey-unveils-profounddesire-change-rather-return-how-life-and-world-werecovid-19

#### 10. Allplane

https://allplane.tv/ blog/2021/2/11/2021-airline-bankruptcy-list-now-open

#### **11. OECD**

http://www.oecd.org/coronavirus/policy-responses/ supporting-people-and-companies-to-deal-with-the-covid-19-virus-options-for-an-immediate-employment-and-socialpolicy-response-d33dffe6/

#### 12. Bloomberg

https://www.bloomberg.com/news/articles/2020-06-08/ india-warns-of-risk-to-planes-as-wildlife-flourishes-at-airports?sref=gAQr8Hwd

#### 13. Forbes

https://www.forbes.com/sites/christopherelliott/2022/02/16/ eurail-ceo-shift-away-from-short-haul-flights-makes-european-trains-more-appealing/?sh=2061d0b62baa

#### 14. International Railway Journal

https://www.railjournal.com/rolling-stock/ france-pushes-to-grow-night-train-offer/

#### 15. The Guardian

https://www.theguardian.com/travel/2020/nov/19/ travel-company-bucks-trend-by-launching-during-lockdown

#### 16. The Independent

https://www.independent.co.uk/travel/news-and-advice/ flygskam-anti-flying-flight-shaming-sweden-greta-thornbergenvironment-air-travel-train-brag-tagskryt-a8945196.html

#### **17. Sustainable Brands**

https://sustainablebrands.com/ read/defining-the-next-economy/ flight-shaming-movement-evolves-into-flight-free-travel-trend

#### 18. Statista

https://www.statista.com/statistics/1104835/ coronavirus-travel-tourism-employment-loss/

#### 19. OECD iLibrary

https://www.oecd-ilibrary.org/ urban-rural-and-regional-development/ oecd-tourism-trends-and-policies-2020\_82b46508-en;jsessionid=QNaWr0LuupQ6LeOXic43ZZEb.ip-10-240-5-117

#### 20. Sagepub

https://uk.sagepub.com/sites/default/files/upm-assets/109852\_book\_item\_109852.pdf

#### 21. Taylor and Francis Online

https://www.tandfonline.com/doi/full/10.1080/02508281.202 0.1726614

### **No Flight Necessary**

#### **1.** The Independent

https://www.independent.co.uk/travel/uk/home-townslondon-uk-travel-b1887456.html

#### 2. South China Morning Post

https://www.scmp.com/lifestyle/ travel-leisure/article/3162191/ hong-kong-tours-how-local-guides-are-adapting-survive

3. The Durango Herald https://www.durangoherald.com/articles/ walking-tours-pick-up-the-pace-during-pandemic/

4. Rapid Transition Alliance https://www.rapidtransition.org/resources/ the-staycation-is-here-to-stay/

5. Ordnance Survey https://www.ordnancesurvey.co.uk/newsroom/news/ lockdown-leads-the-nation-to-explore-their-local-area

6 Echoes https://echoes.xyz/echoes-creative-apps

7. Rapid Transition Alliance https://www.rapidtransition.org/resources/ getting-on-your-bike/

8. Rapid Transition Alliance https://www.rapidtransition.org/resources/ pandemic-epiphanies/

#### 9. Rapid Transition Alliance https://www.rapidtransition.org/stories/ upward-spiral-how-circular-economies-break-the-cycle-of-overconsumption/

22. Flock Together https://www.flocktogether.world/

#### 23. World Travel & Tourism Council

https://worldtraveltourismcouncil.medium.com/5-ways-tourism-can-support-local-economies-8cc8ded47370

#### 24. Wandering Helene

https://wanderinghelene.com/why-supporting-local-tourism-is-more-important-than-ever-before/

#### 25. The Gone Goat

https://www.thegonegoat.com/inspiration-and-tips/ travel-slowly-slow-tourism

#### 26. Remote Year

https://www.remoteyear.com/blog/what-is-slow-travel

#### 27. International Airport Review

https://www.internationalairportreview.com/news/118517/ europe-airports-almost-100-per-cent-fall-passenger-numbers/

10. The Points Guy https://thepointsguy.com/news/ pandemic-appreciation-hometown-florida/

11. Young Archaeologists' Club https://www.yac-uk.org/news/local-explorers-challenge

12. Alpkit https://alpkit.com/blogs/spotlight/ top-tips-for-exploring-your-local-area-during-lockdown

13. Alpkit https://alpkit.com/products/microadventures

#### 14. Gov.uk

https://www.ethnicity-facts-figures.service.gov.uk/uk-population-by-ethnicity/national-and-regional-populations/ regional-ethnic-diversity/latest

15. Bird Girl Uk https://www.birdgirluk.com/black2nature/

16. Black Girls Hike UK https://www.bghuk.com

17. The Guardian https://www.theguardian.com/stage/2018/jan/23/ black-men-walking-royal-exchange-manchester-testament

18. Youtube https://www.youtube.com/watch?v=QwZL6I7fN9M

#### 19. Metro

https://metro.co.uk/2020/09/21/the-english-countrysidewas-shaped-by-colonialism-why-rural-britain-is-unwelcoming-for-people-of-colour-13273808/

#### 20. National Trust

https://www.nationaltrust.org.uk/features/ colonial-countryside-project

#### 21. South China Morning Post

https://www.scmp.com/lifestyle/ travel-leisure/article/3162191/ hong-kong-tours-how-local-guides-are-adapting-survive

#### 22. Drone and Dslr

https://droneandslr.com/travel-blog/hong-kong/ staycation-deals/

### **Glimpsing a Different Kind of Streetscape**

#### 1. The Guardian

https://www.theguardian.com/uk-news/2020/apr/03/ uk-road-travel-falls-to-1955-levels-as-covid-19-lockdowntakes-hold-coronavirus-traffic

#### 2. The Guardian

https://www.theguardian.com/world/2021/jul/23/low-trafficschemes-halve-number-of-road-injuries-study-shows

#### 3. The Guardian

https://www.theguardian.com/cities/ng-interactive/2020/ sep/25/garden-streets-bike-superhighways-cities-future-coronavirus

#### 4. The Observatory for Public Sector Innovation

https://oecd-opsi.org/covid-response/a-local-germanauthority-is-converting-streets-into-safe-play-areas-forchildren/

#### 5. Queen Margaret University

https://www.gmu.ac.uk/campus-life/blogs/ staff-dr-sarah-kantartzis/children-s-play-is-being-affectedby-covid-19-and-the-shape-of-everyday-life/

#### 6. Shelter

https://england.shelter.org.uk/media/ press\_release/15\_million\_people\_crammed\_into\_englands\_ overcrowded social homes

#### 7. ONS

https://www.ons.gov.uk/economy/ environmentalaccounts/articles/oneineightbritishhouseholdshasnogarden/2020-05-14

#### 8 Reuters

https://www.reuters.com/article/usa-spaces-minorities/ protests-pandemic-pile-pressure-on-u-s-public-spaceidUSL8N2DO1RM

9. PNAS

https://www.pnas.org/content/116/11/5188/tab-article-info

#### 23. The Durango Herald

https://www.durangoherald.com/articles/ walking-tours-pick-up-the-pace-during-pandemic/

#### 24. KPMG

https://assets.kpmg/content/dam/kpmg/au/pdf/2020/ beyond-covid-19-rise-of-domestic-travel-tourism-australia. pdf

#### 25. KPMG

https://assets.kpmg/content/dam/kpmg/au/pdf/2020/ beyond-covid-19-rise-of-domestic-travel-tourism-australia. pdf

#### **10. NCIB**

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6651051/

#### 11. Artland

https://magazine.artland.com/coronavirus-street-art-howthe-pandemic-is-changing-our-cities/

#### 12. Gustobeats

https://www.gustobeats.com/discover-those-hidden-romestreet-art/

#### 13. Instagram

https://www.instagram.com/p/B\_X5jsllxXe/?utm\_source=ig\_ embed

#### 14. Instagram

https://www.instagram.com/p/B94FWBCJ1\_F/?utm\_ source=ig\_embed

#### **15. Street Art News**

https://streetartnews.net/2020/03/fakes-new-mural-supernurse-available-for-free-download.html

#### 16. The New York Times

https://www.nytimes.com/2020/05/30/technology/bernalheights.html?searchResultPosition=1

#### 17. The New York Times

https://www.nytimes.com/interactive/2020/04/16/opinion/ coronavirus-inequality-solidarity-poll.html?searchResultPosition=1

### **Getting on Your Bike**

#### 1. Bloomberg

https://www.bloomberg.com/news/articles/2020-06-09/ japan-and-france-find-public-transit-seems-safe

#### 2. Transit

https://transitapp.com/coronavirus

#### 3. The Exploratorium

https://www.exploratorium.edu/cycling/frames1. html#:~:text=German%2520Inventor%2520Karl% 2520von%2520Drais,frame%2520was %2520a%2520wooden%2520beam.

#### 4. The Guardian

https://www.theguardian.com/business/2020/jul/07/ halfords-predicts-bicycle-boom-to-continue-for-2020

#### 5. The Guardian

https://www.theguardian.com/business/2021/jun/17/halfords-reports-184-jump-in-profits-amid-global-bike-shortage

#### 6. People For Bikes

https://www.peopleforbikes.org/news/how-bicycling-changed-during-a-pandemic

#### 7. Cyclist

https://www.cyclist.co.uk/news/8285/cycling-has-increasedby-200-since-lockdown-government-reports

#### 8. Cyclist

https://www.cyclist.co.uk/news/8285/cycling-has-increasedby-200-since-lockdown-government-reports

#### 9. Cycling Industry News

https://cyclingindustry.news/study-shows-huge-value-ofcovid-era-cycling-infrastructure-investment/

#### 10. World Bank Blogs

https://blogs.worldbank.org/transport/covid-19-creates-newmomentum-cycling-and-walking-we-cant-let-it-go-waste

11. European Cyclists' Federation https://ecf.com/dashboard

12. European Cyclists' Federation https://ecf.com/dashboard

#### 13. Smart Cities World

https://www.smartcitiesworld.net/news/news/bogota-expands-bike-lanes-overnight-to-curb-coronavirusspread-5127

#### 14. The Guardian

https://www.theguardian.com/world/2020/apr/10/oakland-california-slow-streets-coronavirus-us

#### 15. The Guardian

https://www.theguardian.com/world/2021/jul/23/low-trafficschemes-halve-number-of-road-injuries-study-shows

#### 16. GOV.uk

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/906698/walking-and-cycling-statistics-england-2019.pdf

#### 17. GOV.uk

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/906698/walking-and-cycling-statistics-england-2019.pdf

#### 18. Singletrack World

https://singletrackworld.com/2020/03/bike-shops-classedas-essential-service-may-remain-open/

### 19. Crowdfunder

https://www.crowdfunder.co.uk/p/wheelsforheroes?experiment=a

20. Facebook https://www.facebook.com/communitybikeworkshop

21. WHO https://www.who.int/health-topics/air-pollution#tab=tab\_1

22. BBC News https://www.bbc.co.uk/news/world-europe-52483684

#### 23. Electrek

https://electrek.co/2021/04/14/france-3000-e-bike-creditto-trade-in-old-gas-car/

#### 24. Governo Italiano

https://www.mit.gov.it/comunicazione/news/sostenibilita-fino-500-euro-per-buono-mobilita

#### 25. Bicycle Association

https://www.bicycleassociation.org.uk/news-press/e-bike-incentives-over-twice-as-effective-as-e-car-grants/

### Cars - the end of the love affair

#### 1. IEA

https://www.iea.org/articles/ changes-in-transport-behaviour-during-the-covid-19-crisis

2. Rapid Transition Alliance https://www.rapidtransition.org/resources/ the-great-reallocation/

#### 3. Rapid Transition Alliance

https://www.rapidtransition.org/resources/ the-staycation-is-here-to-stay/

#### 4. CREDS

https://www.creds.ac.uk/wp-content/uploads/CREDS-Lessis-more-web.pdf

5. CREDS https://www.creds.ac.uk/wp-content/uploads/CREDS-Lessis-more-web.pdf

6. Irish Times https://www.irishtimes.com/news/ireland/irish-news/ traffic-levels-still-lower-than-pre-pandemic-despite-returnto-workplaces-1.4789811

7. Tom Tom https://www.tomtom.com/en\_gb/traffic-index/

8. Tom Tom https://www.tomtom.com/en\_gb/traffic-index/

### 9. CREDS

https://www.creds.ac.uk/wp-content/uploads/CREDS-Lessis-more-web.pdf

10. CREDS https://www.creds.ac.uk/wp-content/uploads/CREDS-Lessis-more-web.pdf

**11. WJES** https://wjes.biomedcentral.com/articles/10.1186/ s13017-021-00395-8

12. CREDS https://www.creds.ac.uk/wp-content/uploads/CREDS-Lessis-more-web.pdf

13. CREDS https://www.creds.ac.uk/wp-content/uploads/CREDS-Lessis-more-web.pdf

#### 14. CREDS

https://www.creds.ac.uk/wp-content/uploads/CREDS-Lessis-more-web.pdf

#### **15. Car Free Megacities**

https://www.carfreemegacities.org

#### 16. Advnture

https://www.advnture.com/news/ hiking-boomed-in-the-us-in-2020-says-report

#### **17. AXIOS**

https://www.axios.com/local/denver/2022/01/31/ outdoor-industry-pandemic-post-pandemic-future

#### **18. CREDS**

https://www.creds.ac.uk/wp-content/uploads/CREDS-Lessis-more-web.pdf

#### **19. Rapid Transition Alliance**

https://www.rapidtransition.org/resources/getting-on-yourbike/

#### 20. The Guardian

https://www.theguardian.com/lifeandstyle/2021/mar/12/ europe-cycling-post-covid-recovery-plans

#### 21. The Guardian

https://www.theguardian.com/lifeandstyle/2021/mar/12/ europe-cycling-post-covid-recovery-plans

#### 22. The Guardian

https://www.theguardian.com/lifeandstyle/2021/mar/12/ europe-cycling-post-covid-recovery-plans

#### 23. Transport Environment

https://www.transportenvironment.org/wp-content/ uploads/2021/07/Briefing%20-%20polling%20Covid-19%20 &%20mobility.pdf

#### 24. Transport Environment

https://www.transportenvironment.org/wp-content/ uploads/2021/07/Briefing%20-%20polling%20Covid-19%20 &%20mobility.pdf

#### 25. We Are Possible

https://wearepossible.github.io/carfreestories/

### **Cargo Bikes**

#### 1. UNCTAD

https://unctad.org/news/global-e-commerce-jumps-267trillion-covid-19-boosts-online-sales

#### 2. Trade Economics

https://www.tradeeconomics.com/iec publication/ impact-covid19-transport-logistics/

#### 3. Tree Hugger

https://www.treehugger.com/cargo-bikes-for-business-dothey-make-sense-today-4852437

#### 4. Salesforce

https://c40.my.salesforce.com/ sfc/p/#36000001Enhz/a/1Q000000gQIE/ ZAt0l5yhRzwwjWVdqvDaU6EyCzlo0qwhSOcHj4pIEEQ

#### 5. Salesforce

https://c40.my.salesforce.com/ sfc/p/#36000001Enhz/a/1Q00000gQIE/ ZAt0l5yhRzwwjWVdqvDaU6EyCzlo0qwhSOcHj4pIEEQ

#### 6. Covid Innovations

https://www.covidinnovations.com/home/27042020/ london-based-bike-works-company-launches-cycle-deliveryservice-to-reach-those-most-self-isolating-members

#### 7. The Promise of Low Carbon Freight

https://static1.squarespace.com/ static/5d30896202a18c0001b49180/t/61091edc3acfda2f4af7d97f/1627987694676/ The+Promise+of+Low-Carbon+Freight.pdf

#### 8. The Promise of Low Carbon Freight

https://static1.squarespace.com/ static/5d30896202a18c0001b49180/t/61091edc3acfda2f4af7d97f/1627987694676/ The+Promise+of+Low-Carbon+Freight.pdf

#### 9. Salesforce

https://c40.my.salesforce.com/ sfc/p/#36000001Enhz/a/1Q000000gQIE/ ZAt0l5yhRzwwjWVdqvDaU6EyCzlo0gwhSOcHj4pIEEQ

#### **10. Cross River Partnership**

https://crossriverpartnership.org/wp-content/ uploads/2019/03/20190520\_Element-Energy\_Cyclinglogistics-study\_FINAL-REPORT-1.pdf

**11. Cycling Industry News** 

https://cyclingindustry.news/electric-cargo-bikes/

#### 12. A Step Towards the City Centre of the Future

https://www.oslo.kommune.no/getfile.php/13363369-1583742895/Content/Politics%20and%20administration/ City%20development/Car%20free%20city/PBE%20 Bilfritt%20byliv%20sluttrapport engelsk.pdf

#### 13. A Step Towards the City Centre of the Future

https://www.oslo.kommune.no/getfile.php/13363369-1583742895/Content/Politics%20and%20administration/ City%20development/Car%20free%20city/PBE%20 Bilfritt%20byliv%20sluttrapport engelsk.pdf

#### 14. Do the Health Benefits of Cycling Outweigh the Risks?

https://journals.lww.com/epidem/Fulltext/2011/01001/ Do\_the\_Health\_Benefits\_of\_Cycling\_Outweigh\_the.205. aspx#:~:text=1%20day%20lost).-,Conclusion%3A,pollution%20emissions%20and%20traffic%20accidents.

#### **15. Rapid Transition Alliance**

https://www.rapidtransition.org/stories/large-tired-and-tested-how-europes-cargo-bike-roll-out-is-delivering/

### **Commuting (not) to a Healthier and Happier Future**

#### 1. ETSC

https://etsc.eu/pin-report-lockdowns-resulted-in-an-unprecedented-36-drop-in-road-deaths-in-the-eu/

#### 2. Rapid Transition Alliance

https://www.rapidtransition.org/stories/ unnecessary-travel-the-return-of-breathable-air-and-rethinking-transport-in-a-crisis/

#### 3. Sky News

https://news.sky.com/story/covid-19-boris-johnsons-workfrom-home-advice-has-immediate-impact-on-road-trafficand-public-transport-12494837

#### 4. BBC News

https://www.bbc.co.uk/news/business-53113475

#### 5. CBS Sanfrancisco Bay Area

https://sanfrancisco.cbslocal.com/2021/10/29/bart-couldface-9-figure-budget-deficits-by-2024-experts-say/

#### 6. The Local

https://www.thelocal.fr/20210512/parisians-may-neverreturn-to-public-transport-even-after-the-pandemic-ends/

#### 7. YouGov

https://yougov.co.uk/topics/economy/ articles-reports/2021/09/28/ what-will-increased-remote-working-mean-britain

#### 8. United States Census Bureau

https://www.census.gov/newsroom/press-releases/2021/ one-way-travel-time-to-work-rises.html#:~:text=In%20 2019%2C%20the%20average%20one,about%20 10%25%20over%2014%20years.

9. Harvard Business Review https://hbr.org/2017/05/reclaim-your-commute

#### 10. TUC

https://www.tuc.org.uk/news/annual-commuting-time-21hours-compared-decade-ago-finds-tuc

#### 11. Bloomberg

https://www.bloomberg.com/news/articles/2020-12-31/ the-pandemic-killed-my-commute-is-that-good

12. Harvard Business Review

https://hbr.org/2017/05/reclaim-your-commute

#### 13. United States Census Bureau

https://www.census.gov/library/working-papers/2013/demo/ SEHSD-WP2013-03.html

#### 14. Bloomberg

https://www.bloomberg.com/news/articles/2020-12-31/ the-pandemic-killed-my-commute-is-that-good

#### 15. Bloomberg

https://www.bloomberg.com/news/articles/2020-12-31/ the-pandemic-killed-my-commute-is-that-good

16. Harvard Business Review

https://hbr.org/2017/05/reclaim-your-commute

#### 17. The New York Times

https://www.nytimes.com/2017/08/17/business/economy/ san-francisco-commute.html

18. Springer Link

https://link.springer.com/article/10.1007/s11116-019-09983-9

#### 19. American Journal of Preventive Medicine

https://www.ajpmonline.org/article/S0749-3797(07)00745-3/ fulltext

#### 20. Science Daily

https://www.sciencedaily.com/ releases/2011/05/110525085920.htm

#### 21. Scientific American

https://www.scientificamerican.com/article/ commuting-takes-its-toll/

#### 22. American Journal of Preventive Medicine

https://www.ajpmonline.org/article/S0749-3797(12)00167-5/ fulltext

#### 23. National Library of Medicine

https://pubmed.ncbi.nlm.nih.gov/29338957/

#### 24. Taylor & Francis Online

https://www.tandfonline.com/doi/abs/10.1080/16078055.201 4.903723

#### 25. Our World in Data

https://ourworldindata.org/emissions-by-sector

#### 26. Department for Business

https://assets.publishing.service.gov.uk/government/uploads/ system/uploads/attachment\_data/file/957887/2019\_Final\_ greenhouse\_gas\_emissions\_statistical\_release.pdf

#### 27. United States Environmental Protection Agency

https://www.epa.gov/ghgemissions/ sources-greenhouse-gas-emissions

#### 28. World Resources Institute

https://www.wri.org/insights/everything-you-need-knowabout-fastest-growing-source-global-emissions-transport

#### 29. BBC

https://www.bbc.com/future/article/20200317-climate-change-cut-carbon-emissions-from-your-commute#:~:text=Globally%2C%20transport%20accounts%20for%20 around, emissions%20that%20come%20from%20transport.

#### 30. Royal College of Physicians

https://www.rcplondon.ac.uk/projects/outputs/ every-breath-we-take-lifelong-impact-air-pollution

#### 31. Royal College of Physicians

https://www.rcplondon.ac.uk/projects/outputs/ every-breath-we-take-lifelong-impact-air-pollution

#### 32. Springer Link

https://link.springer.com/article/10.1007/s40279-018-1023-0

#### **33. Science Direct**

https://www.sciencedirect.com/science/article/pii/ S0160412018313667

#### 34. Science Direct

https://www.sciencedirect.com/science/article/abs/ pii/S0966692319304764?casa token=3cQ2glza-h8AAAAA:-629GmeH-xktKp\_xzsAhLYZB\_nEGxy0cumo-BizEprJWRJJ-Lh-zm8nqW\_Clz9tLBZiK5mqMG

#### 35. Science Direct

https://www.sciencedirect.com/science/article/abs/pii/ S2214140517306564?casa\_token=g7pfezQIAEAAAAAA:Pg-1M1G-rB34jQDWuXjKXVwqs9SeOCRDXfqRH1BsbW0DyEpkHCFLVq1sCRGVnMIDHKzez1E4v

### The Great Reallocation Giving Urban Space Back To People

#### 1. Car Free Stories

https://static1.squarespace.com/static/6012c1c8eb0b5837ac26126b/t/6148e890 c147de4392337931/1632168087380/ The+irresistible+rise+of+peoplefriendly%2C+clean+air+cities.pdf

2. MCC https://www.mcc-berlin.net

3. MCC https://www.mcc-berlin.net

4. POLIS https://www.polisnetwork.eu/news/ the-pep-reallocating-space-for-active-travel/

#### 5. POLIS

https://www.polisnetwork.eu/news/ the-pep-reallocating-space-for-active-travel/ 6. CIVITAS Handshake https://handshakecycling.eu/news/ rome-responds-covid-19-150-kilometres-cycle-routes

#### 7. POLIS

https://www.polisnetwork.eu/news/ the-pep-reallocating-space-for-active-travel/

8. The Guardian https://www.theguardian.com/world/2020/apr/10/ oakland-california-slow-streets-coronavirus-us

#### 9. Smart Cities World

https://www.smartcitiesworld.net/news/news/ bogota-expands-bike-lanes-overnight-to-curb-coronavirusspread-5127

10. Pub Med https://pubmed.ncbi.nlm.nih.gov/33131151/

11. Medscape https://www.medscape.com/viewarticle/942497

12. Pub Med https://pubmed.ncbi.nlm.nih.gov/32728975/

#### 13. Imperial College London

https://www.imperial.ac.uk/news/229233/ long-term-pollution-linked-greater-risk-covid-19/

#### 14. IOP Science

https://iopscience.iop.org/article/10.1088/1748-9326/abaf86

#### 15. WMO

https://library.wmo.int/index.php?lvl=notice\_ display&id=21942%23.Yg-BFO7P2Eu#.YiC1RS-I1gs

#### 16. LTNs for all?

https://static1.squarespace.com/static/ 5d30896202a18c0001b49180/t/60588cab4ace0a5fd4 366a72/1616415924314/LTNs+for+all+%283%29.pdf

17. UN News https://news.un.org/en/story/2021/09/1099092

#### 18. The Guardian

https://www.theguardian.com/world/2021/jul/23/low-trafficschemes-halve-number-of-road-injuries-study-shows

#### 19. LTNs for all?

https://static1.squarespace.com/static/ 5d30896202a18c0001b49180/t/60588cab4ace0a5fd4 366a72/1616415924314/LTNs+for+all+%283%29.pdf

#### 20. Gov.uk

https://assets.publishing.service.gov.uk/government/ uploads/system/uploads/attachment\_data/file/906698/ walking-and-cycling-statistics-england-2019.pdf

#### 21. University of Bristol

https://www.bristol.ac.uk/research/impact/ street-play-model-copied-nationwide/

#### 22. YoungMinds

https://www.youngminds.org.uk/about-us/ reports-and-impact/coronavirus-impact-on-young-peoplewith-mental-health-needs

#### 23. A Mindful Shift

http://eprints.bournemouth.ac.uk/34191/3/Manuscript%20 9.05.2020%20-%20RG%20version.pdf

### The Death of Business Travel

#### 1. Bloomberg

https://www.bloomberg.com/news/features/2021-08-31/ will-business-travel-come-back-data-show-air-hotel-travelforever-changed

#### 2. GBTA

https://www.gbta.org/blog/business-travel-full-recovery-expected-by-2025/

#### 3. Deloitte

https://www2.deloitte.com/us/en/insights/focus/transportation/future-of-business-travel-post-covid.html

#### 4. Bloomberg

https://www.bloomberg.com/news/features/2021-08-31/ will-business-travel-come-back-data-show-air-hotel-travelforever-changed

#### 5. The Times

https://www.thetimes.co.uk/article/covid-cuts-spell-the-endof-business-trips-and-expenses-8w6k98Int

#### 6. Reuters

https://www.reuters.com/business/aerospace-defense/ corporate-business-travel-carbon-budgets-loom-airlines-2021-10-10/

### The Shifting Terrain of Urban Mobility

#### 1. Scientific American

https://www.scientificamerican.com/article/there-is-littleevidence-that-mass-transit-poses-a-risk-of-coronavirusoutbreaks/

#### 2. Mckinsey & Company

https://www.mckinsey.com/industries/ automotive-and-assembly/our-insights/ micromobilitys-15000-mile-checkup

#### 3. Climateworks Foundation

https://www.climateworks.org/blog/ the-pandemic-showed-why-micromobility-is-crucial-to-urban-resilience-mitigation-and-adaptation/

4. NABSA

https://nabsa.net/about/industry/

#### 5. Climateworks Foundation

https://www.climateworks.org/blog/ the-pandemic-showed-why-micromobility-is-crucial-to-urban-resilience-mitigation-and-adaptation/

#### 6. Climateworks Foundation

https://www.climateworks.org/blog/ the-pandemic-showed-why-micromobility-is-crucial-to-urban-resilience-mitigation-and-adaptation/

#### 7. BBC News

https://www.bbc.co.uk/news/ science-environment-49349566

#### 8. Reuters

https://www.reuters.com/business/aerospace-defense/ corporate-business-travel-carbon-budgets-loom-airlines-2021-10-10/

#### 9. ABC Money

https://www.abcmoney.co.uk/2020/07/01/what-is-the-impact-of-business-travel-on-mental-wellbeing/

#### 10. ABC Money

https://www.abcmoney.co.uk/2020/07/01/what-is-the-impact-of-business-travel-on-mental-wellbeing/

#### 11. McKinsey & Company

https://www.mckinsey.com/industries/travel-logistics-and-infrastructure/our-insights/for-corporate-travel-a-long-recovery-ahead#

#### **12. The Financial Times**

https://www.ft.com/content/cdd2ecad-eafe-4289-8ad1-78dac463a536

#### 7. TechRepublic

https://www.techrepublic.com/article/ mobility-companies-pivot-to-helping-critical-workers-aseveryone-else-stays-at-home/

#### 8. Mckinsey & Company

https://www.mckinsey.com/~/media/McKinsey/Industries/ Automotive%20and%20Assembly/Our%20Insights/ Micromobility%20industry%20progress%20and%20a%20 closer%20look%20at%20the%20case%20of%20Munich/ Micromobility-industry-progress-and-a-closer-look-vf2.pdf

#### 9. Mckinsey & Company

https://www.mckinsey.com/~/media/McKinsey/Industries/ Automotive%20and%20Assembly/Our%20Insights/ Micromobility%20industry%20progress%20and%20a%20 closer%20look%20at%20the%20case%20of%20Munich/ Micromobility-industry-progress-and-a-closer-look-vf2.pdf

#### 10. The Independent

https://www.independent.co.uk/climate-change/news/ air-pollution-global-deaths-cities-b1987396.html

#### 11. NABSA

https://nabsa.net/about/industry/

#### **12. Climateworks Foundation**

https://www.climateworks.org/blog/ the-pandemic-showed-why-micromobility-is-crucial-to-urban-resilience-mitigation-and-adaptation/

#### 13. Eltis

https://www.eltis.org/in-brief/news/ benefits-micro-mobility-cities

14. Eltis https://www.eltis.org/in-brief/news/ benefits-micro-mobility-cities

### The 'Staycation' is Here to Stay

#### 1. The Guardian

https://www.theguardian.com/news/2019/jul/01/global-tourism-hits-record-highs-but-who-goes-where-on-holiday

#### 2. The Guardian

https://www.theguardian.com/news/2019/jul/01/global-tourism-hits-record-highs-but-who-goes-where-on-holiday

#### 3. The World Counts

https://www.theworldcounts.com/challenges/ consumption/transport-and-tourism/ negative-environmental-impacts-of-tourism/story

#### 4. Travel Pulse

https://www.travelpulse.com/news/hotels-and-resorts/ staycations-on-the-rise-around-the-world.html

#### 5. The Independent

https://www.independent.co.uk/travel/news-and-advice/ staycation-uk-holidays-bookings-up-summer-b1806658.html

#### 6. Financial Times

https://www.ft.com/content/ cf8a0731-71b6-4244-b440-a7654bacc9e5

#### 7. Travel Zoo

https://www.travelzoo.com/ca/blog/ ontario-staycation-tax-credit-best-local-travel-experiences/#:~:text=Ontario%20residents%20will%20receive%20 a.of%20%24200%20or%20%24400%20respectively.

#### 8. Citizen Information

https://www.citizensinformation.ie/en/money\_and\_tax/tax/ income\_tax\_credits\_and\_reliefs/stay\_and\_spend\_tax\_credit. html

### **Finding the Nature Cure**

#### 1. NRPA

https://www.nrpa.org/parks-recreation-magazine/2021/ december/the-value-of-play-playgrounds-and-parks-duringthe-pandemic/

#### 2. Art News

https://www.artnews.com/art-news/news/pandemic-drawing-hobby-impressionism-1234594153/

66 Lessons from Lockdown – Unnecessary Travel

15. Sifted https://sifted.eu/articles/mobility-startups/

16. Mckinsey & Company https://www.mckinsey.com/features/ mckinsey-center-for-future-mobility/overview/ shared-mobility

#### 9. City A.M

https://www.cityam.com/ no-place-like-home-staycations-set-to-sizzle-into-2022/

10. Skift https://skift.com/2021/02/10/ staycation-summer-across-europe-will-drive-local-tourism/

**11. Nature Climate Change** https://www.nature.com/articles/s41558-018-0141-x

#### **12. Science Direct**

https://www.sciencedirect.com/science/article/pii/ S0261517711000793

**13. Science Direct** https://www.sciencedirect.com/science/article/pii/ S2211464521000075

#### 14. T and F Online

https://www.tandfonline.com/doi/epub/10.1080/14616688.20 21.1943703?needAccess=true

#### 15. T and F Online

https://www.tandfonline.com/doi/epub/10.1080/14616688.20 21.1943703?needAccess=true

16. Skift https://skift.com/2021/02/10/ staycation-summer-across-europe-will-drive-local-tourism/

#### **17. Bournemouth University**

3. The Conversation

4. Frontiers

climate-emergencies-125536

frsc.2021.713977/full#b59

https://www.frontiersin.org/articles/10.3389/

http://eprints.bournemouth.ac.uk/34191/3/Manuscript%20 9.05.2020%20-%20RG%20version.pdf

https://theconversation.com/3-ways-cities-can-prepare-for-

#### 5. Office for National Statistics

https://www.ons.gov.uk/economy/environmentalaccounts/ articles/howhaslockdownchangedourrelationshipwithnature/2021-04-26

6. MDPI https://www.mdpi.com/2413-8851/5/4/93

7. Frontiers https://www.frontiersin.org/articles/10.3389/ frsc.2021.713977/full#b62

8. MDPI https://www.mdpi.com/2075-4663/7/6/141

9. New Scientist https://www.newscientist.com/article/ dn7931-perspectives-take-a-deep-breath/

**10. New Scientist** 

https://www.newscientist.com/article/ mg24933270-800-green-spaces-arent-just-for-nature-theyboost-our-mental-health-too/

11. Science Direct https://www.sciencedirect.com/science/article/abs/pii/ S2215036615005052

**12. NCIB** https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7688424/

13. MDPI https://www.mdpi.com/2413-8851/5/4/93

#### 14. NRPA

https://www.nrpa.org/parks-recreation-magazine/2021/ december/the-value-of-play-playgrounds-and-parks-duringthe-pandemic/

15. Nature

https://www.nature.com/articles/s41893-021-00781-9

#### 16. NRPA

https://www.nrpa.org/parks-recreation-magazine/2021/ december/the-value-of-play-playgrounds-and-parks-duringthe-pandemic/

17. World Bank

https://www.worldbank.org/en/news/feature/2014/03/03/ why-you-should-care-about-wildlife

18. The Guardian

https://www.theguardian.com/world/gallery/2020/apr/22/ animals-roaming-streets-coronavirus-lockdown-photos

**19. Financial Times** 

https://www.ft.com/ content/51f9520b-2677-4c2e-aa45-fa16cc6bf3b2

#### **20. RSPB**

https://www.rspb.org.uk/fun-and-learning/for-families/ family-wild-challenge/activities/build-a-birdbox/?channel=paidsearch&gclid=EAIaIQobChMI3oWBodSX-6wIV14BQBh0k2wWAEAAYASAAEqJVefD BwE

#### **21. Rapid Transition Alliance**

https://www.rapidtransition.org/stories/ the-land-is-ours-movements-reversing-legacies-of-inequality-and-modern-land-grabs/

#### 22. New Statesman

https://www.newstatesman.com/culture/2020/09/ englands-green-and-forbidden-lands-nick-hayes-on-hisbattle-for-the-publics-right-to-ramble

#### 23. New Statesman

https://www.newstatesman.com/culture/2020/09/ englands-green-and-forbidden-lands-nick-hayes-on-hisbattle-for-the-publics-right-to-ramble

#### 24. CNR

https://cnr.ncsu.edu/news/2020/12/nature-gap-why-outdoor-spaces-lack-diversity-and-inclusion/

#### 25. City Girl In Nature

http://citygirlinnature.com

#### 26. National Trust

https://www.nationaltrust.org.uk/features/ addressing-the-histories-of-slavery-and-colonialism-at-the-national-trust

#### 27. Earth Island Journal

https://www.earthisland.org/journal/index.php/articles/entry/ being-black-while-in-nature

#### **28. APSE**

https://www.apse.org.uk/apse/assets/File/Documents/ Publications/Post%20Pandemic%20Green%20Urban%20 Spaces.pdf



This guide has been made possible by the support of ClimateWorks Foundation – climateworks.org – and is published by the Rapid Transition Alliance – rapidtransition.org – where you can find many of these examples explored in more detail.

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