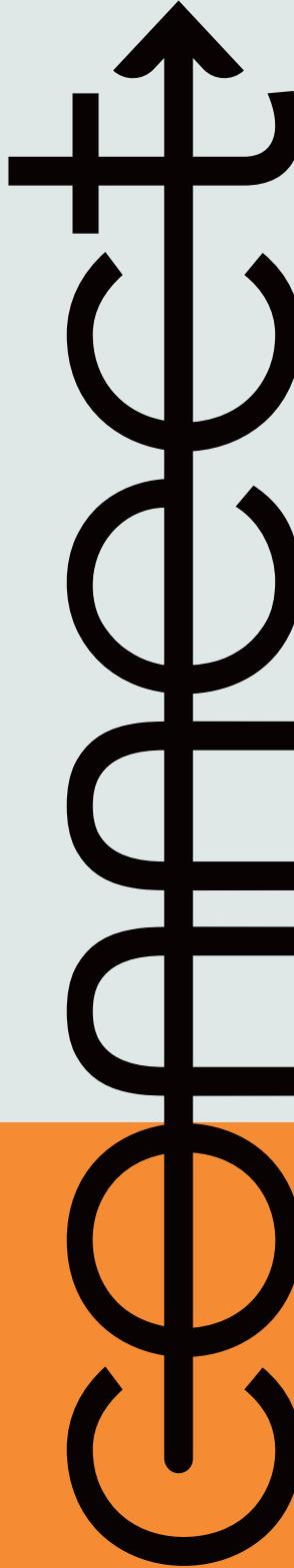


**Car Free Day  
Lunchtime Streets  
Shared spaces  
An idea for Montreal  
Micro mobility  
Museums**



# Welcome to the autumn 2019 edition of Momentum's Connect, where we focus on the discussions being had around the future of our cities.

## Keep in touch

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This autumn we were proud to sponsor the first Car Free Day London Summit. Held just before London Car Free Day, which saw pedestrians take to the streets of the Square Mile – the summit brought together speakers and delegates from cities across Europe who are making strides to make car free a reality.

Our role as urban designers, transport planners and engineers is to create spaces for people. This doesn't always mean heading exclusively for car free; more and more we're working with clients to help reduce a long-established reliance on motor vehicle dominance. We strive to be forward thinkers. Addressing the needs of the future city by making sure that our clients know about and can put into practice new technology, innovation and strategies that will help them achieve their goals, whilst working alongside the ambitions, challenges and constraints of policies and legislation which guide their developments.

In this edition of Connect our in-depth feature looks at the Car Free Day Summit, some of the blue-sky thinking which delegates at the London Summit revealed to us and what happened when Chancery Lane was transformed as part of the Lunchtime Streets initiative. We also travel to Canada to look at an 'idea for Montreal'.

Throughout the year we regularly host the Momentum Transport and Urbanism Forum. These sessions are an opportunity to look deeper into an area of emerging interest to us and our clients. On pages 14 and 18 we share the output from two of our sessions on shared space and micro mobility, both themes which came out strongly as areas of interest amongst the London Summit delegates.

Finally, in our sector spotlight feature we take a look at how our 'traditional' transport planning knowledge and skills are applied in an area where the work of a transport planner or engineer might not usually be considered. Read more about our work for museums on page 20.

Find out more about our in-depth feature with our 30-second Q+A videos at: [www.momentum-transport.com/autumn-connect](http://www.momentum-transport.com/autumn-connect)



Foreword

**Changing the way our cities are designed is vitally necessary for the prosperity and health of all human societies and our shared environment. Like all great transitions, the transition to traffic-free city centres and cleaner air starts from the ground up, with residents coming together to test out new ideas and approaches to using the streets, the city's most abundant public space.**

London has always been a changing city, responding to the needs of its growing population. The city is now back to its 1939 peak of 9 million people - and growing. Yet roads and parking consume around 30% of the city's land area, dominating our public space. An estimated 6.8 million parking spaces consume 8000 hectares of land across the city. This is an inefficient use of high-value land in a city where the vast majority of households do not own a car, particularly when affordable housing and public space are in short supply. In North American cities and international cities following an American urban design model, roads and parking lots can account for up to 60% of the total urban land surface. London is blessed with a world-class public transport system and a uniquely walkable street pattern. The City of London and the Mayor's respective transport strategies have set the stage for global leadership and a transition to a pedestrian-priority Square Mile. London has the financial, technical and policy expertise required to lead a systematic transition to traffic-free city centres.

In the transition to becoming a city of traffic-free town centres with a pedestrian priority Square Mile at its heart, London can take inspiration from Edinburgh and Oslo, alongside other cities who are removing traffic and creating new public realm in its place. Momentum's support for the World Car Free Day London Summit was a great first step towards this goal. We are excited about the city's future as a global capital for the arts, culture, business and finance, and the opportunity for London to become the world's first great traffic-free city centre.

Hamish Stewart

Co-Founder.  
Car Free Day London Summit

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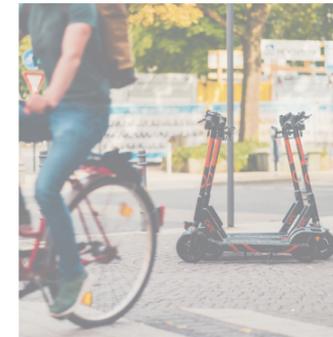


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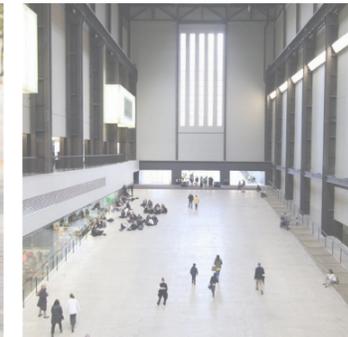
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**Research findings<sup>1</sup> released at the first Car Free Day London Summit showed that the land currently occupied by cars in just ten major European cities is worth close to £1 trillion.**

This 'overallocation' of urban space to parking (there are 6.8 million parking spaces in London) and roads was just one of the economic and environmental factors debated by city leaders and delegates working to significantly reduce the presence of private cars in their city centres.

There are of course many benefits to be achieved by becoming car free. Roads and parking spaces could be transformed into new public realm, parks, housing and commercial space. Accidents involving vehicles would decrease and air and noise quality would improve. Arguably initiatives such as Vision Zero and Road to Zero could be achieved with ease. (Read more in Momentum's autumn 2018 edition of Connect).

Increasingly, and around the world, our clients are looking to implement strategies that support pedestrian-priority land use and improved mobility for people in city centres. From car share initiatives, cycle parking facilities and micro mobility options to consolidated delivery centres, cargo bikes, access strategies for goods vehicles and shared space, we're proud to support the car free day initiative and help our clients understand how cities and urban developments can achieve more efficient land use and mobility by considering alternative options to the car.



**Summit delegates heard the car free experiences of Edinburgh, Oslo and Paris and were encouraged to consider how 'liveability gains' or an 'open streets' mindset might be an achievable step towards becoming car free:**

The City of London's ambitious transport strategy<sup>2</sup> doesn't propose a completely car free approach, but includes several important steps to prioritise pedestrians and cyclists. Reducing traffic speeds to 15mph and replacing the Congestion Charge with road user charging across central London are two such suggested measures.

Karen Cook from PLP Architecture (architects at 22 Bishopsgate, the host building for the launch event) spoke at the summit about how the new development will include provision for 1700 cycle parking spaces.

Will Norman, Mayor of London's Walking & Cycling Commissioner, underlined the necessity of a good public transport experience. With expected growth, every Londoner will spend an extra 2 days a year stuck in traffic by 2041.

"Edinburgh is taking a holistic, collaborative approach to make transport an enabler, and thinking about what happens in the space when traffic is taken away." Daisy Narayanan, Edinburgh Council.

**“ You should be able to walk into the City without going into a cafe or restaurant to rest. Oslo is being co-created for everyone to make a greener more inclusive city... ”**

**Kristine Høglund Solgaard**  
Secretariat, Car-Free City, Oslo



<sup>1</sup>JLL  
<sup>2</sup> www.cityoflondon.gov.uk/services/transport-and-streets/Pages/transport-strategy.aspx

“ Coming from a small town, I couldn't imagine trying to be a cyclist in London but eventually I became one. Incentives and infrastructures helped the transition, therefore I believe that cycle lanes like the CSH should be expanded.

Can you imagine a London without cars...

Sketch or draw your idea for how you imagine a space or street in London could be transformed if cars were no longer in the picture...

A bike highway along the Thames and throughout the country

johnsurico

Thank you for visiting our stand  
Follow us to see how your concept could be taken forward

We invited delegates at the Car Free Day London Summit to share their blue-sky ideas on how a space in London could be transformed if it were car free – here's some of their thoughts...

Can you imagine a London without cars...

Sketch or draw your idea for how you imagine a space or street in London could be transformed if cars were no longer in the picture...

We could create pedestrian connections and linear parks linking residential areas and key amenities like schools. I would love to be able walk my daughter to nursery without having to cross busy roads and squeeze between stationary cars.

Thank you for visiting our stand  
Follow us to see how your concept could be taken forward

Can you imagine a London without cars...

Sketch or draw your idea for how you imagine a space or street in London could be transformed if cars were no longer in the picture...

Pedestrianise London Bridge and add trees and seating. Improving the well-being of commuters into the City

Thank you for visiting our stand  
Follow us to see how your concept could be taken forward

Can you imagine a London without cars...

Sketch or draw your idea for how you imagine a space or street in London could be transformed if cars were no longer in the picture...

Replace roads with vegetable gardens to fight food poverty and climate change

Thank you for visiting our stand  
Follow us to see how your concept could be taken forward

Can you imagine a London without cars...

Sketch or draw your idea for how you imagine a space or street in London could be transformed if cars were no longer in the picture...

Thank you for visiting our stand  
Follow us to see how your concept could be taken forward

Can you imagine a London without cars...

Sketch or draw your idea for how you imagine a space or street in London could be transformed if cars were no longer in the picture...

Cycle bays running alongside all railway tracks (including underground) so that bikes don't clash with cars?

station2station

Thank you for visiting our stand  
Follow us to see how your concept could be taken forward

Can you imagine a London without cars...

Sketch or draw your idea for how you imagine a space or street in London could be transformed if cars were no longer in the picture...

Wider pavements for pedestrians / cycle lanes running the length. Trees lining the streets

Victoria Street

Can you imagine a London without cars...

Sketch or draw your idea for how you imagine a space or street in London could be transformed if cars were no longer in the picture...

Why do we allow cars in our precious parks?

Walworth Road

Thank you for visiting our stand  
Follow us to see how your concept could be taken forward

Can you imagine a London without cars...

Sketch or draw your idea for how you imagine a space or street in London could be transformed if cars were no longer in the picture...

Beautiful wide sidewalks with lots of spaces for businesses to put café tables outside and for East Street market to spill out onto Walworth. Buses would be allowed too

Walworth Road

Thank you for visiting our stand  
Follow us to see how your concept could be taken forward

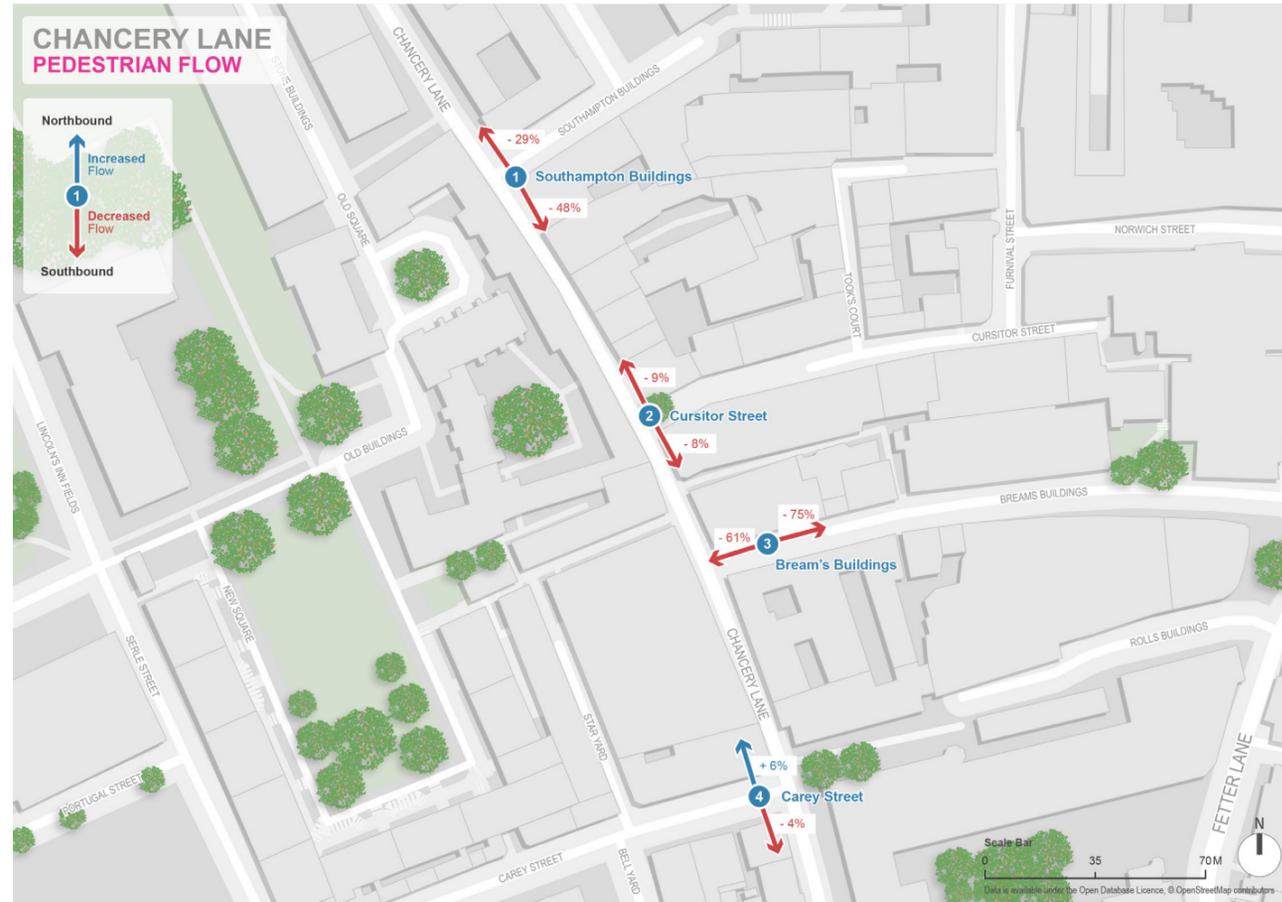
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“ It changed people’s behaviour from hasty pedestrians passing by to grab lunch in a hurry, to curious wanderers leisurely enjoying their time.

Sixtine Le Bourdonnec  
Assistant Consultant, Momentum Transport Consultancy



For three days in September Chancery Lane was transformed. A Cinderella story where in the flick of a wand (also known as a temporary bylaw) the street was granted a small window of time to experience a glorious ball of an event.

Chancery Lane participated in London's Lunchtime Streets - which removed motor vehicle traffic from the street over the lunchtime period and gave way to vendors of all shapes and sizes, free activities and performers. People enjoyed their lunch in a safer and more pleasant environment. Food vendors, small businesses, free karaoke, boules, a live band, workshops and bike check-ups, to name just a few, sprung up on the streets. The initiative also supported the City of London Corporation and the Mayor's Transport Strategies to make London streets safer for pedestrians.

During the event Momentum took to the streets to collect some data. By measuring the volume and direction of pedestrian traffic we are able to provide our clients with quantitative data when we are evaluating the need for and effectiveness of pedestrian planning measures at particular points. By counting pedestrians in 5-minute increments in four places along the street we captured a snapshot of how many people were on Chancery Lane. We returned the following week, after the Lunchtime Streets initiative had ended, to repeat the count. The results were a riches to rags story.

Our first observation was the marked change in atmosphere. What had been a jovial mood during the Lunchtime Streets contrasted with the reality of everyday life as lorries and vehicles trickled through the street a week later. When we compared our two survey days, there were locations which experienced a drop in footfall whilst others remained relatively similar. Bream's Buildings, which is located on the map (left), experienced a dramatic drop in total foot traffic - a 75% drop in the eastbound direction and 61% in the westbound direction.

Comparatively, Cursitor Street and Carey Street (both lightly-trafficked back streets in any event) did not experience a significant drop in foot traffic, and one direction experienced a marginal overall increase. This demonstrates there are opportunities for businesses to take advantage of pedestrianised streets and that the overall increase creates space for people to get out of their office, to move socialise and connect with their work neighbourhood.

In as much as Momentum's pedestrian counting was a quantitative study, it was also qualitative to observe the behaviour of the pedestrians and notice subtle characteristic changes in their behaviour. We noticed there were far less people who seemed happy or pleased to be there, rather it appeared to be just a regular lunchtime where a task was being completed and not a break that was being savoured.

So can Cinderella find the other glass slipper? We think so. A street doesn't have to have karaoke every day, but simple measures such as a calmed street with furniture to socialise and enjoy the company of others can turn a street into a place.

“

**Car Free Days are a tremendous opportunity to catalyse long-term reductions in air pollution and to improve transport systems and land use. Converting land away from parking and redundant road space could make cities much healthier and more prosperous.**

”

Hamish Stewart

Co-Founder.  
Car Free Day London Summit

In the context of celebrating Car Free Day, the idea of shared space can divide opinion. While some may argue that spaces completely free of motor vehicles are the only way forward, many would agree that seeking to encourage the safe co-existence of pedestrians, cyclists and drivers is a more achievable option.

So what is shared space? Pioneered by Hans Monderman, shared space is "a design approach that seeks to change the way streets operate by reducing the dominance of motor vehicles, primarily through lower speeds and encouraging drivers to behave more accommodatingly towards pedestrians." Monderman demonstrated that streets become safer when traffic controls such as traffic lights, signs, crossings, road markings and kerbs are taken away and drivers take their cues from people. Road users must interact with, and most importantly react to, one another.

Shared space was debated at a recent Momentum Transport and Urbanism Forum, where examples of the good, bad and ugly were discussed and a series of shared space recommendations were proposed.

# Good bad and ugly

We highlighted Leonard Circus in London as a space which works well for all user groups. Leather Lane in London, which hosts a weekday street market; Liverpool city centre, which allows deliveries during the early morning and is then pedestrianised for shoppers; and the centre of Bologna, which is pedestrianised on Sundays, were considered as successful spaces where different functions exist alongside one another at different times of the day or week.

Receiving more critical feedback was Exhibition Road in London. A high-profile example of shared space which provides little dwell space on the main, linear thoroughfare, and where the primary users of the road are drivers. The Dorset town of Poundbury, owned by the Duchy of Cornwall and built to reflect the principles of 'architecture of place' and being a 'walkable community', has also prompted questions regarding the safety of its highways.

### Why consider shared space?

Shared space fundamentally supports approaches such as TfL's Healthy Streets which aim to 'help everyone to use cars less and to walk, cycle and use public transport more' (2).

Its introduction could help to start and embed an attitude shift in the UK, where the use of cars is so deeply rooted in our national psyche. The more we expose people to the possibilities of shared space, the more they will understand how these spaces work.

Done well, shared space could arguably be seen as a useful stepping stone towards full pedestrianisation.



Photo of Leonard Circus



Photo of Aldgate Square

# Challenges facing shared spaces

Can be controversial. The DfT withdrew guidance on shared space in 2018(1); many groups have concerns around the safety and accessibility of shared space, in particular those which incorporate a level surface.

Suffers from a lack of joined-up funding and relies on local councils taking difficult decisions. If traffic can no longer use shared or pedestrianised space, it needs to be provided for elsewhere.

Safety and comfort is a common objective, and this needs to apply equally to those with mobility and sensory impairments

## Our top five recommendations

“

Working with campaign groups to draw up guidance on how to segregate spaces safely and effectively is essential if shared space is to work for everyone...

“

Consider the function of the existing road and how that impacts on future shared space aspirations

“

The behaviour of users is ultimately dictated by good design. People need to be able to quickly understand their role in the shared space and how it works for them...

“

Pooling money across local schemes can make big differences. We'd also like to see more money spent on the things that people see and live every day. Often, considerably less money is spent on public realm initiatives, which can bring benefit to many hundreds more than the architectural finishes of a single building...

“

Take small steps towards your bigger goal: eg use short-term interventions such as a temporary traffic order, which is inexpensive and can create shared space for people to trial. Then survey the population to find out what works...

(1) Local transport note  
(2) www.tfl.gov.uk/corporate/about-tfl/how-we-work/planning-for-the-future/healthy-streets  
(3) www.momentum-transport.com/wp-content/uploads/2018/11/Momentum-Connect-Autumn-2018.pdf





Could micro mobility change the way we develop out towns?

Broadly defined as ‘personal vehicles that can carry one or two passengers’<sup>(1)</sup> for many years micro mobility’s most common example has been the bike. But take a look at any large city across the world and it’s clear to see that a new class of micro mobility has emerged. Small electric cars, electric bikes, scooters and – perhaps most evident – the e-scooter are starting to increase their dominance.

The pros and cons

Their arrival has not been entirely straightforward. E-scooters are currently illegal on the public highway. Classified as PLEVs (personal light electric vehicles) they require DVLA registration and lighting and should only be used on private land.

However, this hasn’t deterred people from purchasing and using them, which itself creates potential problems with safety. Accidents - including fatalities - involving e-scooters and pedestrians have been reported and riding them requires a specific style and skillset. There have also been stories of e-scooters braking and re-booting mid ride, causing injury to riders and those around them. And when dockless scooters and bikes started to flood onto the streets of UK cities, they were quickly followed by problems with street clutter, theft and destruction.

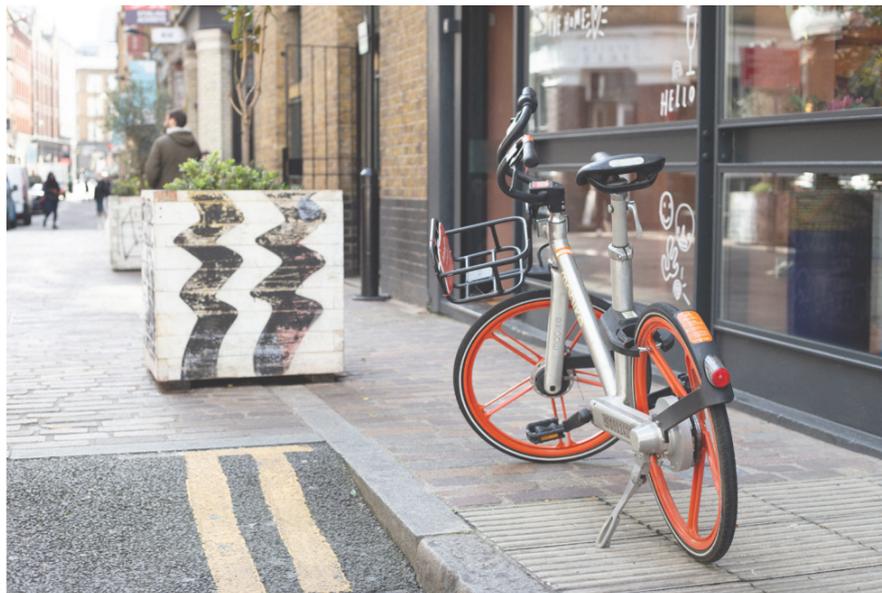
But while e-scooters and bikes may have their critics, delegates at the Momentum Transport and Urbanism Forum discussion on micro mobility also highlighted many positives. The appearance of e-scooters has led to the creation of its very own gig economy in North America; for example, Lime has a team of ‘juicers’ – employed to collect and charge scooters overnight.

On a personal level, e-scooters and bikes could dramatically decrease the cost of a commute, providing a realistic and convenient alternative to public transport. And with a 25-mile (or more) range, micro mobility options could take us far beyond the ‘last-mile solution,’ which connects people from their final leg of public transport to their final destination, and beyond to an end-to-end solution. On a wider, macro level it was also considered that micro-mobility could in fact herald in an era of fewer accidents, as riders appreciate the human scale of their mode of transport and take their duty of care to themselves and others more seriously.

Finally, the benefits of replacing polluting vehicles with cleaner, electric options speak for themselves as we strive to reduce dangerous emissions in our towns and cities.

“

By improving access to the nearest bus stop, train or tube station, similar to TfL’s Cyclability initiative, a huge increase in housing density could be achieved.



Roy McGowan, managing director at Momentum highlights the opportunities for clients:

“As an industry we talk a lot about last-mile solutions, but in my view micro mobility also offers real opportunities for first-mile solutions. The PTAL<sup>(2)</sup> of a development could be dramatically changed for a relatively small investment in a fleet of e-scooters or bikes. By improving access to the nearest bus stop, train or tube station, similar to TfL’s Cyclability initiative<sup>(3)</sup>, a huge increase in housing density could be achieved. New areas would suddenly be opened up to development potential. But the possibility for clutter and chaos created by swathes of e-scooters taking to the streets would need carefully-considered regulation and legislation to ensure safety for all road and pavement users.”

What’s next for micro mobility?

From a transport planning perspective it’s clear that if it’s to stay, micro mobility could – and should – play an interesting role in our work.

Future development planning could include scooter storage, modelling and travel plans. The impact of large-scale developments on already busy transport interchanges could be lessened and there could be a clear scope for micro-mobility vehicles to be introduced on privately-owned developments, such as university campuses or at large events.

But to be safe, sustainable and successful it’s vital that a number of lessons are learned. Speed restrictions, dedicated infrastructure, such as a third lane for micro-mobility vehicles, and safety features, such as on-scooter lighting, would likely improve safety for all road and pavement users. And financially incentivising ‘geo-fencing’ could be a solution in combatting the problem of dockless vehicles being strewn anywhere and everywhere across streets. Most importantly we believe that a review of the Highways Act, alongside greater regulation, is essential if micro mobility is to pass the test of time and become a permanent fixture on our streets. The DfT is currently completing an assessment of the highway legislation options for micro-mobility that will need to be approved by Parliament.

<sup>1</sup> MaaS Alliance  
<sup>2</sup> The public transport accessibility level (PTAL) is a method used in transport planning to assess the access level of geographical areas to public transport.  
<sup>3</sup> Cyclability initiative TfL



“  
**Much of our work for museums focuses on visitor engagement and how visitors move around the museum space once inside, creating simple and enjoyable journeys...**

**This October we exhibited at the Museums Association Conference in Brighton, sharing with delegates how working with a transport planning consultancy can be of benefit to their organisation.**

Traditionally transport planning might not be the first profession you'd expect to see at a museums conference. But many of the analytical tools and skills that are used in our day-to-day transport planning work are a perfect fit for solving the challenges faced by museums and spaces within the cultural and heritage sector.

**Where museums and transport planning meet...**

The ways in which people travel and experience their surroundings are always at the centre of our work; and our work for museums also involves addressing sensitive heritage constraints and complex historic sites and collections.

Back of house we work with delivery, services and logistics teams to optimise operations. This could mean developing intricate strategies which ensure servicing arrangements are in place for exhibitions, goods and the safe and secure delivery of artefacts. Many of the artefacts and collections we work with are priceless or irreplaceable. Robust artefact movement and management strategies and enabling museums to track objects from storage to exhibition provide peace of mind against damage or loss. We can also help museums to achieve "Known Consignor" status.

Much of our work for museums focuses on visitor engagement and how visitors move around the museum space once inside. Creating simple and enjoyable journeys to and from the museum is vital if visitors are to return again and again. We gather and analyse data so that we can model travel behaviours and develop sustainable and accessible transport and public access strategies. We can also help museums understand where visitors are coming from by analysing visitor demographic data.

The Museums Association Conference may have closed for 2019, but our virtual exhibition stand is still open to visitors at:  
[www.momentum-transport.com/museums-and-spaces](http://www.momentum-transport.com/museums-and-spaces)

**Client case study: The British Museum**

Momentum was commissioned to work with Rogers Stirk Harbour + Partners for the World Conference and Exhibition Centre (WCEC) extension of the British Museum.

Our work focused on the traffic and pedestrian safety issues that had been identified at the Bloomsbury site; providing routes throughout the building to allow priceless artefacts to be delivered and transferred to exhibition space; and reducing the impact from other logistics.

We completed a comprehensive review of the existing local highway network and the operational strategy, which enabled the preferred routes for servicing vehicles to be identified - avoiding the predicted conflicts between the movement of valuable museum artefacts and the external servicing activity.

We worked closely with various departments within the Museum to understand delivery protocols, research materials, security, booking systems, banksmen procedures and on-site safety strategies. This level of engagement enabled us to take a holistic approach to the site and the operations required, ensuring that the strategy accommodated the needs of all museum operations whilst maintaining and enhancing the visitor experience.

Momentum also completed pedestrian studies and dynamic pedestrian modelling of the main entrance for the British Museum and for the WCEC to demonstrate the event day capacity and the preferred queue management arrangements for major exhibitions.

To see more of our work visit our online portfolio at:  
[www.momentum-transport.com/portfolio](http://www.momentum-transport.com/portfolio)

**Some of our clients**

- Tate Modern**
- Museum of London**
- IWM Duxford**
- Wakehurst Kew Gardens**
- Stonehenge**
- Blenheim Palace**
- Audley End House**
- British Museum**
- Garden Museum**



**It's not necessarily about becoming car free, but something I loved in Amsterdam was the fact that, pedestrians, bikes, and motor vehicles could all interact smoothly in their own space because there's a legal system that has been designed specifically to protect the most vulnerable on the street.**

**Whether it's a cyclist or pedestrian, communities have specifically designed spaces for each mode to co-exist and interact together seamlessly...**

Harry Walton

Co-Founder.  
Flying Dutchman

designing  
and creating  
spaces for people

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