



CXO FOCUS

HOW MAAS APPS WILL TRANSPORT THE SMART CITY

SMART CITIES NEED MOBILITY-AS-A-SERVICE TO IMPROVE
LIFE FOR THEIR CITIZENS AND BECOME MORE SUSTAINABLE

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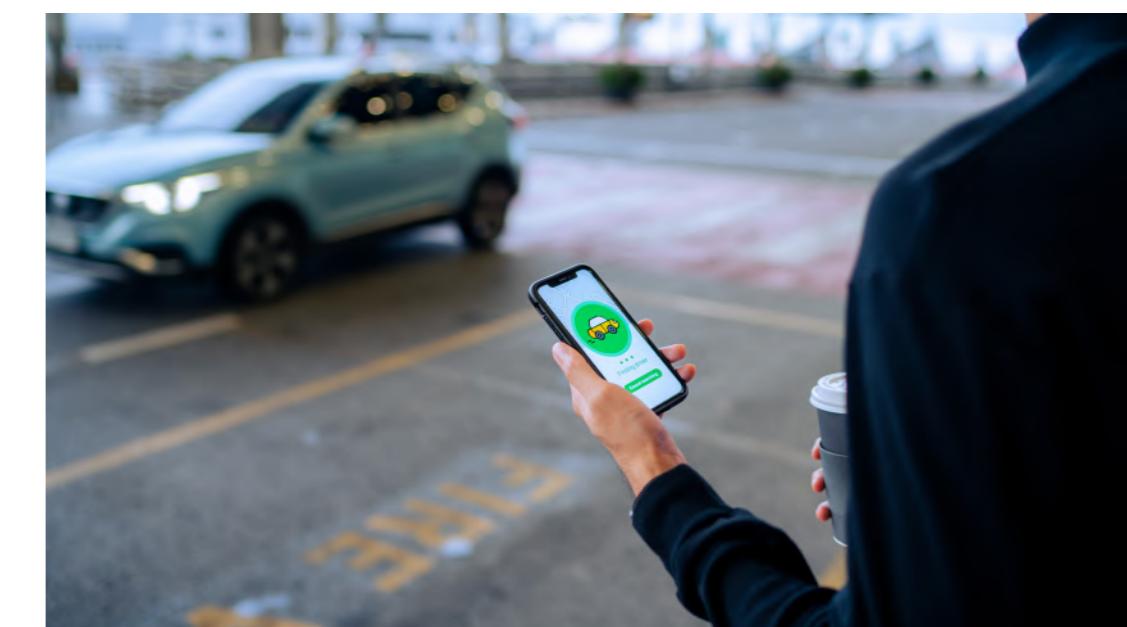
Mobility-as-a-Service (MaaS) is gaining ground as a technology solution to making travel sustainable, cities and communities smarter, and as a result, more economically viable.



MaaS enables multi-modal transport and data-driven decision-making for travelers, therefore enabling a single journey to be made sustainably using public transport, active travel, and private vehicles in a mix that has the least impact on the planet.

MaaS is typically delivered to travelers in the form of an App and a series of connected transport options, which often include public transport and short-term rental of bikes, scooters, and cars. MaaS has the potential to deliver on the two biggest challenges facing cities, climate change, and economic health.

“There is a recognition that public transport is an essential service for running the economy,” says James Findlay, Co-Founder of advisory firm Stance Global. Findlay was chief information officer (CIO) for HS2, the plan to develop a French-style TGV train service in the UK, and CIO of the UK government’s Department for Transport before founding Stance. Findlay adds that many urban and rural areas suffer from transport poverty, preventing those that need work from being able to travel to employment.





Across much of the world, governments are committed to reducing carbon emissions. However, a 2020 study found 92% of kilometers traveled in the UK, which recently hosted the COP26 environmental conference in Glasgow, were made by cars, a growth in private vehicle usage. MaaS has the potential to help travelers break their dependence on the car and become multi-modal travelers, using a series of different transport options to move about. "The easier that alternatives are, then people will shift," says Paul Curtis, Director of Vectos, a consultancy in transport planning and infrastructure design.

Transport advisor Beate Kubitz agrees: "There are real benefits, economically and socially, to MaaS if we can enable people to use their cars less or not own multiple cars," she says. MaaS Alliance, an industry group tasked with driving MaaS adoption and says: "Mobility as a Service has been viewed as the solution to growing car dependence in our cities and the primary accelerant towards multi-modal mobility, whereby residents and visitors are able to seamlessly and sustainably move through a combination of transit, rail and first and last mile solutions such as micromobility."



Percentage of kilometers traveled in the UK, which recently hosted the COP26 environmental conference in Glasgow, made by cars

Kubitz says that MaaS technology will only succeed in developing smart cities if there are significant changes to government regulation of the transport sector. If MaaS is to succeed, then individual cities have to be given the power to set local transport policies, which will enable the technology industry to develop MaaS solutions according to the needs of the cities the app will operate within.

MaaS is often discussed as a solution to cities and their congestion and pollution problems. But rural communities and women must be considered if MaaS is to deliver improved social opportunities and tackle climate change. A study in the USA found that female travelers typically suffer what the report calls a pink tax, as travel is

often inconvenient to the needs of women in terms of safety or because they typically take on the greater care roles. "A lot of local authorities are rural, and the demand is very different," says Findlay of the difference between inner city travel. David Wilde, a consultant to local and national governments on technology and former CIO of Westminster City Council in London, adds that existing public service transport offerings need to be connected up so that healthcare, schools, and domestic care transport is shared and better utilized. He says MaaS is a technology that is ideal for solving this complexity and making cities and communities smarter, cleaner, and more efficient. "Having dirty great diesel buses running around with three people on them is not the answer," says Wilde.

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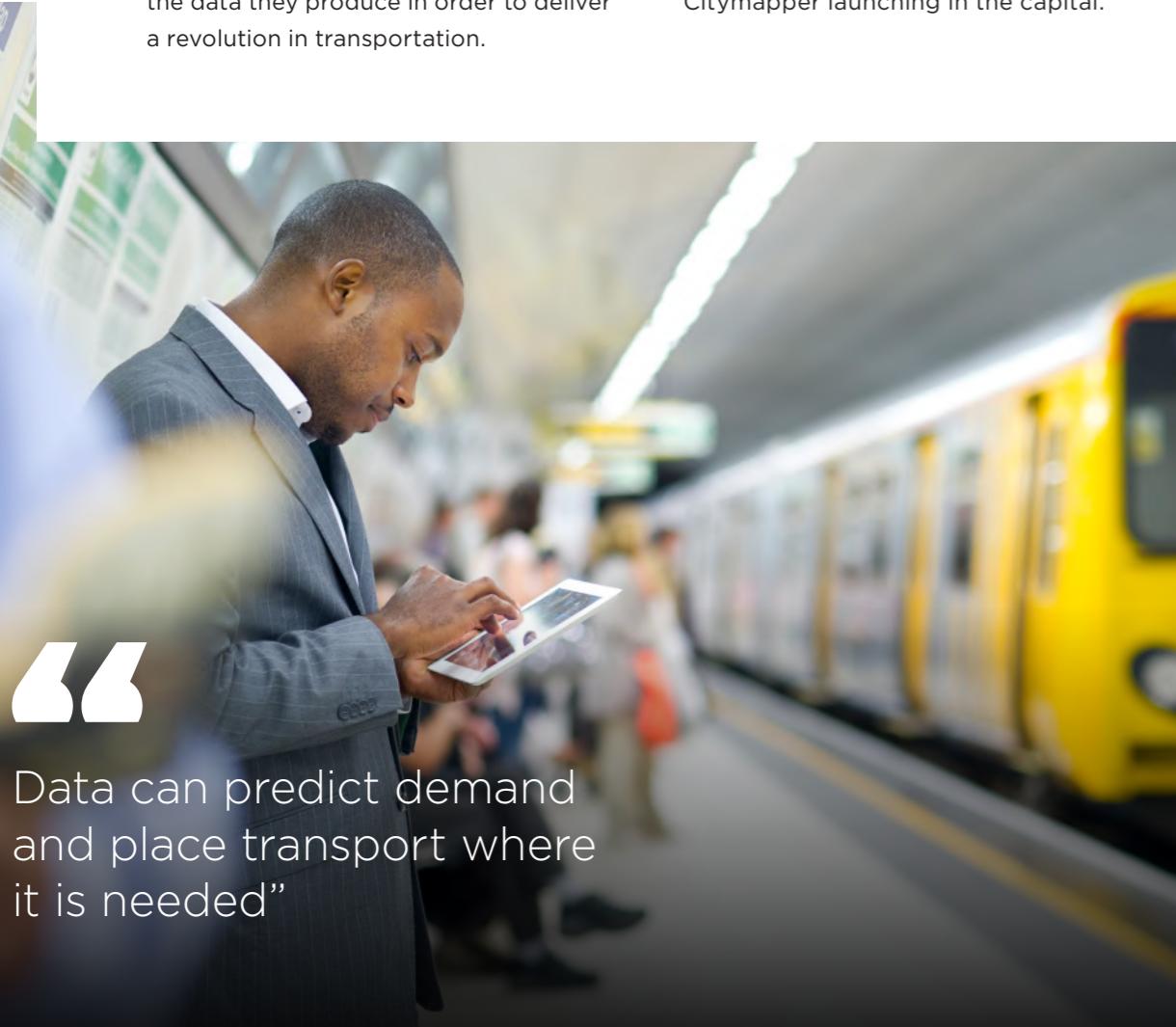
Smarter cities emerge

MaaS has already begun to be adopted, with success in Europe and Asia. European investments in physically segregated cycle lanes in the 1970s and further investments following the pandemic lockdowns have led to a culture of multi-modal transport. Curtis at Vectos says cities such as Gothenburg, Sweden continue to innovate travel options for their citizens.

Driving the success of existing MaaS adoptions is a strong data strategy for these smart cities. MaaS requires open data from all transport types, including rail operators, park & ride venues, and community bicycle and scooter services. Ride-hailing and private bike and scooter operators cite data as a key differentiator and asset, so licensing and regulation needs to promote these important new business models whilst also ensuring smart cities have access to the data they produce in order to deliver a revolution in transportation.

For MaaS to succeed, open data and legislative changes need to be made to the entire transport sector. Without these, local government faces the risk of implementing a nice-looking App on top of an out-of-date and unsustainable transport system that cannot benefit local economies or the environment. "Data can predict demand and place transport where it is needed," Findlay says. "Authorities need more understanding of usage to develop hypotheses and create feedback loops from travelers, then they can adjust transport policy," he says of the importance of open data.

Findlay and Wilde cite Transport for London (TfL), a publicly owned transport service for the UK capital, for its open data achievements. TfL's open data policy has led to the MaaS service provider Citymapper launching in the capital.



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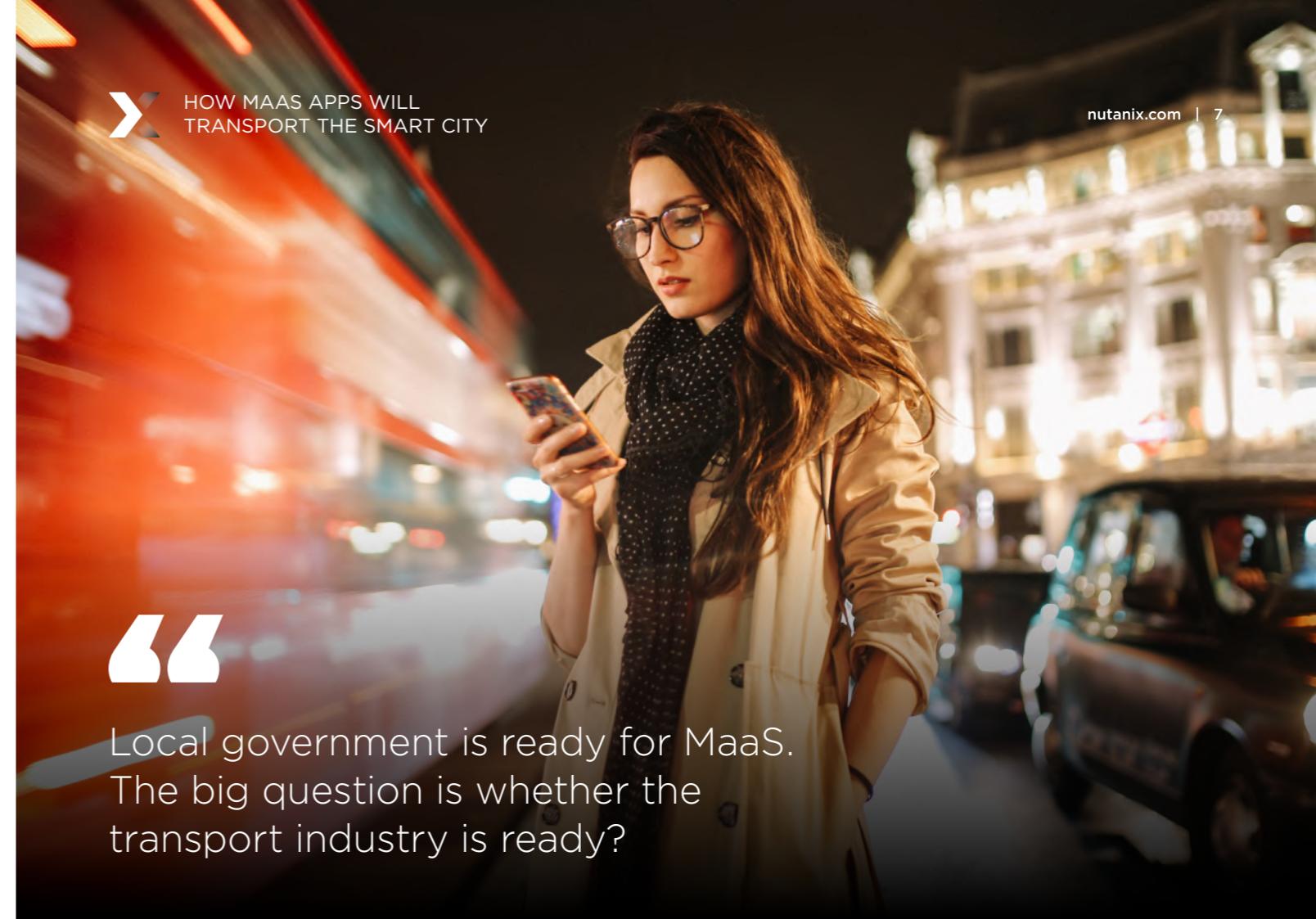
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Potential delays

David Wilde is concerned about the ability of the transport sector: "Local government is ready for MaaS. The big question is whether the transport industry is ready?" However, transport consultancy Vector says many of the delays and congestion to the development of smart cities are down to the governing bodies of those cities. "The leading thinkers in local authorities support MaaS, but on the ground, there is a lot of skepticism. In areas like development control, there is a degree of wariness to new ways of working," says Vectos director Mike Axon. "They worry that if MaaS doesn't work, they have taken something away from residents - the use of the car. But doing the same as we currently do is not going to meet the stated aims of civic bodies like tackling the climate emergency."

Wilde agrees with the international consultancy and says city and community authorities need to become more customer-centric in their thinking. "There are a lot of park-and-rides that close at 8pm; so that means that if people go out after work, they cannot use the park-and-ride," he says. "Don't make the car an evil thing, but you can decrease time in the car and increase mass transport." After all, MaaS technology takes a traveler from point A to B, and that journey may involve some car use for safety and practical reasons.

Apps already direct our social engagements, help us manage our health, finances, entertain and inform us. Yet transport remains largely unmoved by the mobile technology revolution; travelers can hail a car, book a bicycle or see the running times of a train. MaaS takes all of these one step further and allows travelers to put an entire journey together, pay for it and, more importantly, travel smartly.





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