travelspirit

An Open Future for Cities

Preparing cities for the necessary transformation and
organisational changes needed for an open future

June 2019

Summary

*In the midst of the uncertainty surrounding Brexit, the UK's TravelSpirit Foundation
Executive team organised an Open Mobility Conference in Brussels, April 2019, to
spearhead long overdue public and corporate policy developments for a new open
paradigm for city transportation.*

As a follow-up action to the conference, this white paper establishes TravelSpirit's global
position around openness in mobility, and the impact this could have on shaping the new
mobility frontier.

In this paper, we place emphasis on drawing upon voices from diverse aspects of our city
transport ecosystem, with the key purpose of encouraging further debate, and a call to
action for building an open eco-system, open protocols and developing a global strategy
for openness in cities.

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Imagine a Future…

…where you have a single transport account that enables you to use the train, hire an e-scooter, access a self-driving pod, book travel insurance, finance and service a car, order a drone delivery and a take flight. For those in the know, this future has been given the badge of **"Mobility as a Service" (MaaS).**

Around the world, the adoption of digital technology has transformed industries, with new marketplaces providing music and video on demand (Apple iTunes, Spotify, Netflix) and new "open banking" start-ups transforming our experience of bank accounts (Yolt).

Spurred on by disruptors such as Uber, Ofo, and Bird, it is highly likely that transport is going to be the next industry to be transformed. Millions will change the way they plan and take transport in the coming years, representing the next giant leap in consumer behaviour since the shift away from printed road atlases and train timetables to Google Maps and mobility information providers such as CityMapper.

Furthermore, UK, Japanese and Chinese consumers are already far advanced in their adoption digital technology to manage their everyday lives. This is a future which many people around the globe are now asking for, and perhaps frustrated why a comprehensive **"Mobility-as-a-Service" (MaaS)** offer isn't already ubiquitous.

Sandra Witzel, Head of Marketing at MaaS platform provider Skedgo, provided us an insight into the motivation behind MaaS entrepreneurs: *"We want a future where consumers have complete information about their travel options and at the same time are free to choose how they access and pay for those journeys. We see this approach as an essential ingredient for a major shift away from private car use and enabling rapid adoption of electric and shared mobility solutions, intermixed with an increase in the levels of walking and cycling around our cities."*

When and how will MaaS arrive?

To achieve a comprehensive "MaaS Offer" means that business models will need to become much more collaborative – with a diverse mix of operators including automotive firms, bus companies, taxis, bike share and trains working more closely with cities so that the best use of our streets is determined by the public interest, not the most aggressive business model or the one with the deepest pockets.

We are seeing a divergence between businesses working with cities to find their place in the transport ecosystem and a more 'winner takes all' approach – which has the potential to clog streets with under utilised vehicles whilst operators battle for market share.

At one end of the spectrum, companies are calling for new thinking from policy makers and corporate leaders. For example, businesses like Europcar Mobility Group are promoting a completely "open transport system" that will enable MaaS to deliver economic benefits to cities in a sustainable way.

At the other end of the spectrum, many companies and cities are working in silos, annexing their part of people's journeys, or attempting to keep them within their own service group for trips involving more than one transport mode.

The common industry view, is that MaaS will arrive at around a similar timescale to when autonomous vehicles will become mainstream – predicted to happen by the 2030's.

The big question is perhaps not when will MaaS arrive, but what will it look like, from a consumer market and public policy perspective. Who will be in charge of it, and will it deliver on the social values that public transport has traditionally implemented, in terms of equitable access and sustainable goals?

Simon Herko, Blockchain Expert and Chair of TravelSpirit Foundation explains: *"At the broadest level, we have been debating how to restructure the entire transport industry, to become a lot more "open" in its approach to satisfying growing consumer expectations for transport options that are more flexible, easy to consume and that can be bundled into a single customer offer or subscription-based service."*

This would mean companies such as Uber and Google needing to become much more open in the way that they share data with other transportation platforms and city authorities. Crucially, when it comes to personal data, these companies will need to empower customers to be able to port their data across to competing service providers, just as what is now mandated by the Open Banking code for the UK's finance industry.

Without such an approach, transport authorities and technology platforms will behave in a "winner takes all" way, which would in the short term create unwanted congestion, as autonomous pods fight each other for customers, and in the longer term less consumer choice, product innovation and risk of monopolies.

Piia Karjalainen, the Coordinator of the MaaS Alliance at ERTICO – ITS Europe, added: *"For too long, the transport sector has been more pro-business than pro-market; we would like to facilitate the dynamism at the market to create more innovations and new partnerships. But even that is not the end goal itself, the simple reason why we keep talking about this is that we want to create better services for the end user; with their various needs they deserve to have multiple options, and to that end all topics discussed at our pioneering event – open data, open-minded policymaking and trust and collaboration - are very important prerequisites."*

Which cities are leading the way on the open transport system approach?

All over the world, cities are increasingly stepping up to the challenge. **Singapore** already reduces vehicle ownership through vehicle licensing (car ownership requires a 'certificate of entitlement') and road pricing – and place an emphasis on their integrated public transport network with simple payment system. The state has also opted to develop an investment-based approach – creating a fund, SGInnovate, which seeks out transformational technologies and provides equity-based investments, access to talent and support in building customer traction. This gives the state a stake both through the regulation of transport and also in the development of next generation mobility – gaining both capital returns and social returns.

In a new world of exploding transport innovations and choices, providing universal access to all these options is becoming an increasingly burning public policy issue.

Antwerp has radical investment plans to tackle extreme congestion and is putting resources into both infrastructure projects and behaviour change. According to the Vice-Mayor, Koen Kennis, speaking at the TravelSpirit event *"Antwerp is a 'living lab' for smart ideas on mobility of individuals, but also for logistical and maritime challenges. As a city we reach out to all innovators working in this field. We are very excited to support calls for a new Open Ecosystem approach for transportation. This will open up the market for all mobility services all over the world and will break some local monopoly control. This means decoupling services (taxis, scooters, etc.) from their individual apps. It means creating new market opportunities for mobility providers to enter underserved markets."*

Mobility as a Service platforms – which take feeds from multiple modes and show people how to make seamless journeys (and in some cases pay for them) – open access is a prerequisite for enablement In **Amsterdam,** for Sanneke Mulderink, founder and owner of Dutch MaaS platform Tranzer there should be a simple rule: *"All modes of transport, either financed by the public or private and operating in the public space must be offered on a non-discriminatory basis to MaaS providers".*

In short, if a service uses public infrastructure then it should be open in the way it works with the city. Mobility providers need to share with cities with usage data with cities to help them plan and regulate the transport system as a whole.

Cities are, to some extent playing catch up on new technology**. Los Angeles** has pioneered a data feed specification (the Mobility Data Specification or MDS) that enables it to keep tabs on the fleets of shared scooters that have taken to its streets. Providing data via the MDS is one of the conditions for operators putting their vehicles on public pavements.

Other pioneering initiatives can be found in Finland's progressive new Transport Code, which sets out to create the regulatory environment to support MaaS as being spearheaded by Finnish startup, MaaS Global, in **Helsinki**.

Is openness in city transport a realistic goal?

The barriers to an open **"Mobility as a Service" (MaaS)** system lie not so much in technology but in standards, business models and in the political will both to allocate road space and positively regulate and integrate new forms of transport.

It involves traditional transport companies being prepared to open-up to competition and accept they don't own the complete customer journey and/or travel requirements of a customer over the full course of their lives. It also requires industry silos such as airline, public transport, tech platforms, to better interface and collaborate with each other for the benefit of the customer.

At the Open Mobility Conference different parts of the transport industry shared standards – both the successes in digitising services that have long been paper based and unwieldy and the tribulations of finding that making things digital alone will not instantly transform the traveller's experience.

For example, [New Distribution Capability (NDC)](#) is a travel industry-supported program launched by IATA to enhance the capability of communications between airlines and travel agents. A key outcome will be to replace the multiple and rigid booking, ticketing,

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delivery and accounting methods with a single Customer Order record, holding all data elements obtained and required for order fulfilment across the air travel cycle.

Commenting on the conference, Olivier Hours, Head of Industry Distribution Programs Adoption, IATA said: **"***This event helped to confirm there are strong opportunities for cities to adopt versions of IATA's One Order and New Distribution Capability (NDC) protocols for intermodal travel and MaaS."*

However, it requires political will to create and demand standards that are interoperable between modes, and providers to enable people to make their journeys and swap easily between different modes.

It's a drawn-out process, with many stages and patchy adoption. The important lesson is that cities and public authorities and private innovators, transport operators all need to share their experience. This is a complex transition which will require collaboration and negotiation.

Bringing a range of different stakeholders together such as this, where ideas and thoughts can evolve, is crucial to be able to address the complex transition currently being experienced by the transport industry.

As long as the general thinking throughout the mobility sector is purely focussed on economic growth, it leaves limited space to fully consider all possibilities and solutions in an open context. Rather it is public policy, corporate and technology start-up thinking that needs a reboot, to contemplate, regulate, and deliver to customers this new vibrant mix of transport options.

Our Call to Action for an Open Revolution

From our experiences to date, on the impacts of 21st Century disruptive technology start-up's on the 20th Century transport establishment, we believe nothing short of a complete transformation of the transport industry is required to bring about the future of mobility we would all dream of. We are therefore calling global action to take place to:

- Build open-ecosystems for the transportation industry, with a recommendation for doing so through our autonomous regional board structures

- Develop open protocols for the sharing of data on transport movement and assets

- Develop both global and regional strategies for open mobility in cities

Appendix – Open Mobility Conference Pioneers

Open Mobility Conference 2019 was enabled through generous sponsors including Europcar Mobility Group and MaaS platform pioneerss Tranzer, Skedgo and MaaS Global. It involved a range of relevant key notes, lightning talks and thematic workshops designed for an atmosphere of creative participation, where ideas and thoughts can evolve in an open space with the common goal of creating a solution and where different stakeholders can come to the table and contribute their knowledge and expertise.

The venue was KANAL, a former Citroën car factory turned art gallery, in a regeneration zone of Brussels. The full programme and guest speaker profiles for the event can be found at https://travelspirit.foundation/wp-content/uploads/2019/04/Open-Mobility-2019-Agenda.pdf

Mobility as a Service (MaaS)

MaaS is a rapidly emerging transport solution that enables seamless transport across modes and locations, all linked through a single service provider and personalized interface. MaaS is enabled by the rapid adoption of mobile internet access and an explosion in technology enabled new mobility services such as dockless bike share, online journey planning portals and improved services from classic public transport operators. For further definitions, please review the definitive "MaaS Dictionary" by UCL MaaSLab
https://docs.wixstatic.com/ugd/a2135d_d6ffa2fee2834782b4ec9a75c1957f55.pdf

TravelSpirit Foundation, Manchester, UK @TravelSpirit_io

The *TravelSpirit Foundation* was established in Manchester, UK in 2016 to promote and provide an open framework for the provision of new mobility services. It did this in response to what its growing community see as a threat to MaaS achieving its potential – the development of closed and proprietary mobility services. TravelSpirit sees its role and influence as acting on a global level and is engaged in activities in the UK, in the rest of Europe as well as around the world, including Northern America, Southern Africa, Europe and South East Asia. Our four key policy goals are:

Universal Mobility: We believe that an integrated, connected, multi-modal transport system provides the path to sustainable and equitable transportation for all.

Open Innovation: We believe in an open innovation model that rewards sharing of information that serves others, even our competitors, and brings benefits to all.

Global Community: We believe that by connecting coders, planners, activists, and policy-makers through a global network, we are better equipped to tackle the toughest mobility and transport challenges.

Local Benefit: We believe that our work must be grounded in its ability to demonstrate positive change by and for local communities and regions.

Europcar Mobility Group, Paris, France @E_MobilityGroup

Europcar Mobility Group is a major player in mobility markets and listed on Euronext Paris. The mission of Europcar Mobility Group is to be the preferred "Mobility Service Company" by offering alternative attractive solutions to vehicle ownership, with a wide range of mobility-related services: vehicle-rental, chauffeur services, car-sharing, scooter-sharing and peer-to-peer car-rental. Customers' satisfaction is at the heart of the Group's mission and all of its employees and this commitment fuels the continuous development of new services. Europcar Mobility Group operates through multi brands meeting every customer specific needs; its 4 major brands being: Europcar® - the European leader in vehicle rental services, Goldcar® - the most important low-cost car-rental company in Europe, InterRent® – 'mid-tier' brand focused on leisure and Ubeeqo® – one of the European leaders in car-sharing (BtoB, BtoC). Europcar Mobility Group delivers its mobility solutions worldwide solutions through an extensive network in 135 countries (including 16 wholly owned subsidiaries in Europe, 2 in Australia and New Zealand, franchises and partners).

Skedgo @TripGo

SkedGo was started in 2009 by three founders with previous successful exits and has offices in Australia, Germany, UK, Finland, Argentina and Vietnam. SkedGo provides personalised trip planning, corporate mobility and other mobility-as-a-service technology for start-ups, corporations and governments. A senior developer team creates tailored solutions leveraging our unique API. The result: organisations can rapidly create their own multi/mixed modal MaaS offering, including parking, book & pay features, events and itineraries as well as complete corporate mobility solutions.

Ertico, ITS Europe & the MaaS Alliance *@ERTICO & @MaaS_Alliance*

ERTICO – ITS Europe is a public-private partnership of 117 companies and organisations representing service providers, suppliers, traffic and transport industry, research, public authorities, user organisations, mobile network operators, and vehicle manufactures.

ERTICO embodies thought leadership and fosters stakeholder engagement; Together with our partners, we develop, promote and deploy Intelligent Transport Systems and Services

(ITS) through a variety of activities including European co-funded projects, innovation platforms, international cooperation, advocacy and events. ERTICO is the organiser of the annual ITS regional and global Congress in Europe.

The Mobility as a Service (MaaS) Alliance, *hosted by ERTICO – ITS Europe, is a public-private partnership, laying the foundations for an open market of new mobility services, centred on users' needs. Mobility as a Service combines multiple transport services into a single mobility service accessible on demand, for both travellers and goods.*

The MaaS Alliance works towards a seamless and effortless ecosystem for advanced user-oriented mobility services. It brings together all the players in the transport ecosystem – public authorities, start-ups, system integrators and service providers, both established and market-newcomers. Members cooperate in order to create the enablers needed for successful deployment of MaaS in Europe and beyond.

SGInnovate, Singapore @SGInnovate

At SGInnovate, we believe that Singapore has all the resources and capabilities needed to tackle 'hard problems' that matter to people around the world. As part of our Deep Tech Nexus Strategy, we are focused on adding tangible value to the Singapore deep tech startup ecosystem in two key areas – development of Human Capital and deployment of Investment Capital. With the support of our partners and co-investors, we back deeply technical founders through equity-based investments, access to talent, and support in building customer traction. Our efforts are prioritised around transformational technologies such as Artificial Intelligence, Blockchain and MedTech, which represent impactful and scalable answers to global challenges. SGInnovate is a private-limited company wholly owned by the Singapore Government.

City of Antwerp, Belgium twitter: @SlimnaarA

Antwerp is a historical city located at the river Scheldt in the north of Belgium. It has 520.000 inhabitants, and due to its port and diamond trade it is the commercial heart of both Belgium and the Flemish region, hosting about 80.000 companies. Antwerp has one of the most congested ring roads in the TEN-T European network, resulting in a huge impact on the city and its economy. A masterplan was approved, defining various infrastructural projects, forming one of the most ambitious public works Europe has seen in decades. A dual approach was chosen for implication: next to investment in infrastructure a change in behaviour. The city's baseline in doing this has become: Smart Ways to Antwerp, underlining the fact that innovation is key to finding 21st century solutions to 20th century problems.

Tranzer twitter: @Tranzer_nl

Tranzer connects to all different systems of transport operators or suppliers like bike share, car share and taxis from all over the world to get the right price and the right ticket. The tickets are totally integrated in the validation process of the operator and can open a gate. Within the Tranzer platform the customer can plan, book and pay and choose the cheapest, the fastest or most comfortable way of travelling by public transport, taxi, shared car or bike. The Tranzer API can be fully integrated with business platforms. Tranzer is already integrated in WeChat which means that Chinese people can travel within Europe using the WeChat app connected to the Tranzer tickets. The Tranzer platform will soon be integrated with booking platforms and banking platforms.

International Air Transport Association (IATA)   twitter: @IATA

The International Air Transport Association (IATA) is the trade association for the world's airlines, representing some 290 airlines or 82% of total air traffic. IATA supports many areas of aviation activity and helps to formulate industry policy on critical aviation issues.

Open Source Lab, Berlin @open_source_lab

The Open Source Lab aims to unravel and explore possibilities for creating a more livable and sustainable future that is open to everyone.

The purpose of the Open Source Mobility Lab is to build up a platform to enable interdisciplinary research and a broad dialogue on sustainable mobility by involving various relevant stakeholder groups. Within our interdisciplinary team, our work is based on design research methods and an open source working approach. Open Source is our catalyst in navigating the transformation to a more accessible and sustainable society.

Maas Global / WhimApp, Helsinki @maas_global

MaaS is short for **Mobility as a Service**, and it's bringing all your means of travel to one easy place. **MaaS Global** is the world's first true MaaS operator, and with our award-winning Whim app we're set to make the biggest change in transport since cars became widely affordable.

Whim, the first all-inclusive MaaS solution commercially available on the market, gives its users all city transport services in one step, letting them journey where and when they want with public transport, taxis, bikes, cars, and other options, all under a single subscription.

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