MaaS observation: Vienna's mobility push gathers pace

Norbert Schindler reports from his home city where forward thinking has opened the door to Mobility as a Service providers

hat would it take for you to give up your car?" This is the rhetorical question that is brought to audiences around the world when first confronted with the idea of Mobility as a Service (MaaS). At the end of 2019, this guestion was asked for the first time in Vienna, the city in which I have spent most of my life. In fact, during the final weeks of the year, transport professionals living in the city that has been named "the world's most liveable city" for the past two years by The Economist, and for 10 consecutive years by Mercer's Quality of Living survey, had an unprecedented opportunity to take a deep dive into this new concept in the world of transportation that may forever change the way we move around our city.

First and foremost, MaaS Global of Finland launched its Whim service in Vienna at the end of October, making it the first city in Central Europe where this "one stop shop" for mobility service has been made available – and the fourth city overall, following Helsinki, Birmingham, and Antwerp. A few weeks later, the Business Circle, an Austrian leader in conferences and seminars, hosted the very first MaaS Conference in the center of the Imperial City.

With the ascent of many mobility service providers such as Uber, Lyft, Bold and Lime, there are a growing number of digital ecosystems being independently developed – and in parallel to the well-established ecosystem of the public transportation networks that inhabitants like myself have been enjoying for years. Whim's goal is to create an open ecosystem in which all transportation providers can be aggre-



gated, enabling an optimal choice for the customer in a "one stop shop".

ON A WHIM AND A PRAYER

The soft launch of Whim in Vienna started with a simple "Pay As You Go" for each individual ride booked on the app with one of the three mobility partners that are initially on board: the City Airport Train, the public transportation company Wiener Linien and the 31300 Taxi service. While this offer is not overly attractive to Vienna residents like me who regularly use public transportation, MaaS Global claims to have had more than 3,000 registrations within the first week of launching the new service. I first heard about the launch of Whim at the conference, but the folks at MaaS Global assured me that after a few months, they will offer interesting subscription packages and launch a marketing campaign.

I talked to CEO Sampo Hietanen after his insightful presentation about why Vienna was chosen as the first Central European city for Whim. He said that Vienna is a model city, having an excellent public transportation service and several car-sharing services. Vienna also has a relatively high level of car ownership, even though public transportation covers most of the rides taken in the city. According to Alexandra Reinagl of Wiener Linien, the public transportation company that manages 78 km of metro lines, 222 km of tramway lines, and 846 km of bus routes, the share of passenger cars as a mode of transportation has dropped from 40% to 29% over the past 25 years. She also presented figures in her presentation that the use of public transportation in that period climbed from 29% to 38%.

Sampo explained that MaaS Global looks for cities where there is an open mindset and the willingness of the local people to use public transportation and other modes of mobility rather than simply relying on the use of one's own car. He also mentioned that Vienna is an attractive tourist destination that will be interesting for what he calls the "Whim roaming effect," i.e. the use of the App for different countries – a major goal of the company. I would actually love to have an App that takes care of all my public transportation needs when I travel to other European cities, which I do quite often.

According to Sampo, the major challenges for implementing MaaS on a larger "MaaS Global looks for cities where there is an open mindset and the willingness of the local people to use public transportation and other modes of mobility rather than simply relying on the use of one's own car"

scale is that both public and private transportation providers are not yet willing to contribute in an open MaaS ecosystem. He stresses that cities and governments need to "own the market vision" of mobility services. In his presentation, he pointed out that "38% of car owners would use MaaS if they were given a chance" which would





result in 70 million fewer cars on European roads. When European roaming packages are made available, that should be the moment when many Europeans will be willing to give up car ownership and place their mobility in the hands of a service provider. That's when mobility would eventually cost less than car ownership, with little compromise when it comes to flexibility and convenience.

The MaaS Conference was moderated by Christian Clerici, a TV personality who became known when hosting the German version of "The Dating Game." As the founder of the New Moto Group, he has become an active voice in the field of mobility in Austria. During the two-day event, more than a dozen speakers presented their perspective on mobility and its relevance to Austria and, in particular, to Vienna. There were a few visitors from abroad who made presentations in English, but for the most part the focus was on the Austrian market. Nearly all presentations were followed up with well-moderated panel discussions that were very insightful for those in the audience who hoped to gain a better understanding of the diverse aspects of this new form of mobility.

THE COMFORT OF STRANGERS

In addition to Climate Change, Big Data was a recurring theme at the conference. Marcus Frantz, Head of IT Management at the Austrian Railway Company ÖBB, lamented that data protection laws limit the ability to offer customers specific offers based on their travel behavior. "Google, Facebook



MOBILITY AS A SERVICE

and Apple know more about who is sitting on the trains and their travel behavior than we do." With respect to urban mobility, issues of convenience and comfort were given the most attention. One of the most interesting presentations was from the city government of Vienna, which reported on a pilot project for an electric car sharing service that was offered to residents of a public apartment complex in a workingclass neighborhood. It was described how difficult it was to convince people to use the service. "We asked the people living there about their mobility preferences and whether they can imagine using car sharing. But not a single person had ever heard of car sharing." The perception of many residents was that they would lose their status if they didn't own a car. When electric Renault Clios were made available, virtually nobody used them. After they were replaced by electric BMWs, though, the service eventually caught on.

Mobility consumes enormous amounts of space, creates noise and pollution, and thus has a great impact on our quality of life – and limits the ability of cities to operate more efficiently. Wolfgang Pell, Head of Innovation at the large energy provider Verbund, observed that "cars...only move for an hour per day but occupy public space for the rest of the day". Vienna has



"One of the most interesting presentations was from the city government of Vienna, which reported on a pilot project for an electric car sharing service that was offered to residents of a public apartment complex in a working-class neighborhood"



approximately 720,000 vehicles used regularly which occupy around five percent of the total area of the city. By comparison, green areas in the inner districts of Vienna make up between 2% and 15% of the total space. Computer-aided images of busy streets with parked cars being replaced by trees, grass, bicycle paths and playgrounds created a very optimistic view of how the city can be beautifully transformed when shared mobility becomes a reality and "individual traffic" (a German term for passenger cars) becomes virtually obsolete.

EVERYTHING IN MODERATION

There was also a "speed dating" segment that was considered a cute thing for the celebrated host to moderate. A representative of the City of Vienna was on one side of the wall and CEOs of service companies on the other, offering solutions with respect to the city's transportation needs - sort of. But we can easily forgive the host for this indulgence since the conference was otherwise exceptional and certainly worthwhile. In fact, Sampo Hietanen considered it to be "one of top three" such conferences held on the subject of MaaS over the past year - and he has been to "tens of them," as he explained. He believes that 2019 was "the year of opening of the MaaS ecosystem," where MaaS started to become a reality beyond of the hype of previous years.

Within weeks of the MaaS conference, the Future of Transportation Conference was held in Vienna as well, drawing mostly an international audience. For two days, nearly 1,000 attendees listened to 200 speakers on a variety of subjects such as Autonomous Vehicles, Efficiency in Road, Air Mobility, 5G and V2X Connectivity and, of course, Mobility as a Service. According to the event organizers it was "a worldleading conference on the subject of 'what next?'". The primary theme of this year's conference was 'Do or Die.'

Piia Karjalainen of MaaS Alliance provided an astute overview of the challenges faced by the new mobility paradigm that has emerged from her native country of Finland. She believes that the digitalization of the transport sector has brought a unique opportunity to redesign the "The digitalization of the transport sector has brought a unique opportunity to redesign the mobility ecosystem to become more user-friendly and more inclusive"

mobility ecosystem to become more userfriendly and more inclusive than it has been until now. This new framework can be used to identify the complex variety of individual user needs and requirements as we move from "mobility ownership" in the form of individual vehicles to "mobility access." The MaaS Alliance facilitates large partnerships that create value for every partner and member of the mobility ecosystem, leading to more efficient use of urban space, new infrastructure management, and the ability for transport service providers to optimize their capacity.

MaaS is a European innovation that uses the public transportation network as its backbone. In North America, however, MaaS is more focused on last-mile and first-mile solutions whereas in China it is more focused on sharing electric vehicles. In any case, we are witnessing a major disruption in the transportation sector, and this disruption must be managed in order to reduce congestion, and to focus on the environmental impacts of all components of transportation. Transportation is the only sector in the European economy where CO₂ emissions have increased since 1990.

A CLIMATE FOR CHANGE

By 2023, MaaS has the potential to reduce the number of private cars worldwide by 2.3 billion. By providing data that supports our understanding of the mobility needs in cities, the transportation sector can be significantly optimized. This could allow us to reduce CO_2 caused by transportation by up to 30% in 2050. The future of mobility will be much more integrated and will be aimed at improving the user's experience. Mobility as a Service is becoming central to the urban ecosystem and in the development of smart cities.

If the evolution of MaaS depends on the collecting and interpretation of data, 5G mobile communication might well be the greatest enabler for effective mobility services that are oriented around user-specific needs. Finland is not only a leader in MaaS but in the deployment of 5G technology as well. Alina Koskela is special adviser to Traficom, the Finnish Transport and Communications Agency. She presented the 5G trials taking place in a number of transport modes that facilitate the networking of various 5G players across the field. With the new 5G spectrum for mobile communication, networks are becoming cheaper to build, easier to plan, and provide for more data transmission capacity. Connected and automated mobility services require communication networks for reliable data exchange. With high capacity, short delay and low power consumption, 5G can provide new development paths for smart cities based on new services for moving people and goods.

I could highlight many other excellent presentations from this conference, but I need to get out of the office and go for a walk or, perhaps, take a short bike trip to the nearby supermarket near the local train station and pick up some fresh pastries to enjoy with my afternoon coffee. In cities like Vienna, a great amount of infrastructure has been built for different modes of transportation. If they can be intelligently combined into a single mobility network, it will become more convenient and cost-effective to use MaaS rather than individual vehicles – or, to use the more common term in English, cars.

Vienna has successfully evolved from being one of the most conservative capital cities in Europe to becoming a major testbed for the innovations in smart mobility that will transform the way we move. Either on a whim or, more typically for old school Viennese, planning well in advance.

Norbert Schindler is founder and CEO of GNSS Consulting norbert@gnss-consulting.com