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Mobility-as-a-Service: from the Helsinki experiment to a European model?

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Highlights

There is a global discussion about how digitalisation, new technologies and the increasing connectedness of people are potentially changing the transport sector in a fundamental way. The city of Helsinki has taken a concrete step in this context and is exploring a new distribution model for mobility services. Mobility platforms shall enable the integration of the transport modes and the possibility for customers to purchase "mobility packages" granting a defined volume of access to public transport, car and bike sharing and also taxi services at the same time.

The 3rd Florence Intermodal Forum brought together decision makers and stakeholders from the European Commission, national authorities, and operators to discuss the state of play of this development by focussing on the Mobility-as-a-Service paradigm. It did so by discussing the concept, and what it could develop into in the context of congestion problems and changing mobility patterns. It addressed existing obstacles to intermodality as well as past experiences with intermodal offers by operators. Given the new trends and possibilities of a more connected society it appears that regulation has to pave the way for these trends to translate into a smarter mobility system.

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Mobility-as-a-Service: from the regulation of transport as a sector to the regulation of transport as a service?

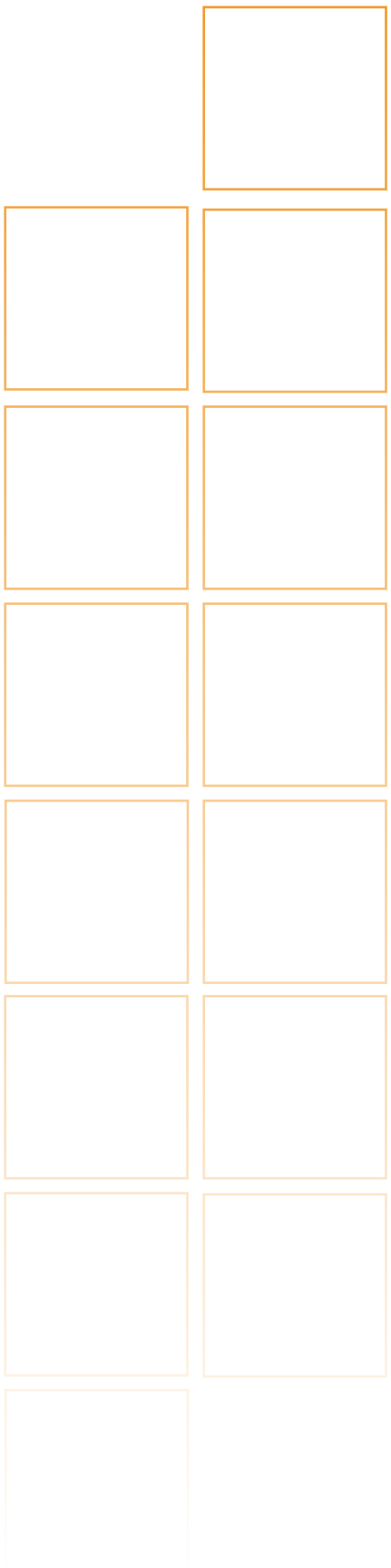
A comment by MATTHIAS FINGER | FSR-Transport Director

Amongst the major changes that have influenced the transport sector in recent years in Europe, the **introduction of the Information & Communications Technology (ICTs)** is among the most prominent ones. Indeed, the rapid evolution and ever more significant application of the ICTs in the transport sector is a heavy trend which leads to **breaking down the boundaries between the different transport modes:** as a matter of fact, the ICTs create an intermediate level between the different means of transport and their users, notably thanks to a new data layer. For the users the focus is therefore no longer on the transport mode, but rather on mobility. As a consequence, mobility will increasingly be seen as an information service with physical transportation products, rather than a transportation product with additional services.

The city of **Helsinki** acknowledged this growing role of the ICTs early on and has subsequently developed its own, original approach to 'Mobility-as-a-Service'. **Mobility-as-a-Service** is a mobility distribution model in which a customer's major transportation needs are met thanks to one single interface with services offered by one single integrated service provider combining transportation infrastructures, transportation services, information and payment services, and others more: "The Helsinki Model aspires to upgrade the service level of transportation by harnessing the passion and capacities of public and private entities. Collaboration and integration of services aims to create a seamless, demand-based and compelling travel experience for the public." (maas.fi)

But what are the **regulatory implications** of this rapidly evolving transportation system? At the 3rd Florence Intermodal Forum, the Finnish model was extensively presented and different stakeholders – in particular the operators, the passengers and the manufacturers laid out their perspectives and opinions in an open discussion. The overall discussion was framed by our comprehensive mobility concept, which had already been tested during previous Intermodal Forums, for example in the case of combining high-speed rail with low cost air. (2nd Florence Intermodal Forum)

It is obvious that, in addition to allowing competition and ensuring the provision of public services, the EU has to face up to the new challenges emerging from the penetration of the various transport sectors by the ICTs. In addition to regulating the traditional issues of the different transport sectors (namely interconnection, interoperability, capacity management, standards, and security), European regulators should also focus on the establishment of a



new comprehensive regulatory framework that enables the usage of the ICTs in and especially across the different transport modes. In particular, this will imply to design a regulatory framework that 1) takes intermodality as a starting point, 2) puts the user (citizens and companies alike) at the centre of the new mobility system, and 3) sees the role of the public sector mainly as an enabler of mobility, rather than as a direct provider of transportation services.

This change of perspective will in particular draw attention to the **regulation of the new data layer** as well as to the regulation of the interface between this data layer and the physical transportation services. As the Helsinki case clearly demonstrates, such an integrated mobility system combining different transport modes along with the related access points (parking spaces, car- and bike-sharing points, but also tickets and booking), tailor-made mobility services can indeed be provided to the benefit of the user and society as a whole. However, as it was also pointed out at the conclusion of the Forum, the daily increase of the use of ICT-based transport services does carry risks: those who have access to the data (and especially to the way these data are conveyed to the end-users) and thus control the information, have immense power. The abuse of such data and information can thus result in market distortions, security risks, diminished privacy protection, and others more. Furthermore, the spread of the ICTs and the trend towards a "sharing economy" now also entering the transportation sector are creating a paradigm shift leading the user to become more active: instead of only choosing the service that satisfies his or her own mobility needs he or she may now also actively offer services.

In conclusion, it emerges clearly that the transportation sector is changing very rapidly thanks to the ICTs. Both policy makers (especially at the European level) and stakeholders are called upon to address the new mobility needs of the users. Moreover, the EU has to create the regulatory conditions for enabling mobility as a service to unfold to the benefit of all the stakeholders involved, and especially to the benefit of Europe's global competitiveness.

Matthias Finger

Mobility-as-a-Service: from the Helsinki experiment to a European model?

Summary of discussion

1. Mobility-as-a-Service: the new transport paradigm in the city of Helsinki

Discussions in the first panel firstly involved clarifying the Mobility-as-a-Service (MaaS) concept in its practical dimension for the city of Helsinki as well the general context. It addressed underlying trends that justify the need for a new mobility paradigm, made comparisons to other sectors and showed where there is still need for clarification and improvement.

MaaS is in the first place a distribution model for transport services. The customer's transportation needs are "met over one single interface and are offered by an integrated service provider in an eco-system made of infrastructures, different transportation services and operators, information and payment services."[1] The distributer would design customised packages allowing different volumes of usage of the different transport modes including taxi services. Some examples of this type are being explored in Helsinki at the moment.

The discussion firstly addressed the MaaS paradigm, what it stands for and the role it plays in the context of integrated transport policy. Whereas the promotion of intermodal transport and integrated ticketing have been on the (European) policy agenda for some time, MaaS goes further and introduces a new dimension. It emerged clearly also at the Forum that the business perspective has been very present in the definition and the implementation of MaaS. This possibility of very significant business opportunities that result from a shift in mobility patterns shall in fact drive the shift to an intermodal system in the future.

The discussion showed that transport experts and industry stakeholders have a particular interest in this model mainly because of the possible next steps.

Taking the example of the Helsinki metropolitan area, further developing the model could offer a "guaranteed mobility", a service promising to get the customer to a certain destination in a certain time, using whichever means are available. A central element would be the inclusion of taxi and car sharing services, therefore extending the spectrum of what is traditionally considered public transport service. Once a critical mass of customers will be mobilized

1. Hietanen, Sampo, 2014, "Mobility-as-a-Service" – the new transport model?

these services could be offered at affordable rates with different "packages" according to customer preferences.

Yet another step would then be that such a service becomes globally accessible – similar to roaming offers in telecommunications.

Many comparisons were made to the telecommunication sector during the discussion: one of the essential elements of MaaS is to move towards selling mobility in packages rather than as individual services, much like telecommunication services are offered at present. The starting point is the comparison with the structural changes in the telecommunication industry following its liberalisation. Transport is currently sold with a "production based approach" and no significant service layer has been developed. A sector that focuses entirely on service distribution and developing customer friendly offers does not yet exist for transport but does for telecommunication.

The change has to be seen in the context of digitalisation, which has already significantly impacted other industries and business models. For instance, in the hotel and tourism industry, portals such as ebookers or booking.com have shown that the internet can enable the emergence of new highly profitable businesses that focus entirely on the distribution of a service offered by others.

Reaching a critical mass

Questions concerning the MaaS concept revolved around many areas. Some noticed that in the discussion there was a focus on rather wealthy (potential) customers. The possible "mobility packages" which were presented normally featured price estimates for the users of several hundred Euros. On the other hand, the most important demographic that was identified as being open to new mobility trends were young urban people, who are not known for their spending power.

In opposition to this, the argument was raised that as a first step a market and functioning businesses are needed. Once the system becomes more established more choices and price models will become available. Furthermore, one may underestimate the money that is currently being spent on cars. It has to be calculated including the amount that a car-owning household currently spends on taxes, fuels, road charges and acquisition costs of a car. Here a budget depending on the household, of between 300 and 600 Euros monthly is not unrealistic. Nevertheless, in the beginning there would be a focus on the most lucrative demographic.

The possibilities that could emerge from a wider range of customers (a critical mass) for new mobility offers were stressed at several points. For example it was explained that it would be theoretically possible for a city to offer an unlimited taxi use package in one city for about 100 Euros a month. This low price would be feasible at a profit for taxi undertakings once a sufficient number of clients signed up for it.

What future role for network operators and Public Service Obligations

One of the "blind spots" identified in the concept is the role of network operators and the future of Public Service Obligations (PSO). The vision of a new more developed "service layer" in transport implies moving certain powers away from the transport providers to new actors. Yet the operators need to make the investments and need to generate the profits to make them.

Furthermore PSOs do not fit very well with the concept of MaaS, which also implies further extending the role of the markets in transport. The model implicitly assumes that all transport services are profitable and economically viable, yet today a large amount of transport services are offered through PSO, which is a form of state provision. It was clear that also in the future there will be the need for a strong role of the state for providing a certain level of services. At least in the beginning new distribution models would most likely work best for transport services that are commercially viable without state support.

2. The changing transport system: new passengers' needs and new mobility solutions

Discussions in the second panel first addressed the passengers' needs and then focussed on some of the existing solutions and experiences of operators thereby defining more clearly the remaining challenges.

The mobility trend of younger people worldwide was an important element of the discussion. Driver's licences and car ownership are decreasing almost everywhere. It is becoming generally less attractive for citizens to own a car and the motivation for buying one is shifting towards doing so only for reasons of necessity rather than prestige. It was also stated that, due to the increased connectedness of younger people via social media, cars are becoming less important as a means for facilitating social interaction.

The discussion pointed out an important business dimension of this development: the money that is not spent on cars becomes available for other mobility services. This trend is likely to go on for a longer period giving rise to new business opportunities. The supporters of this view also saw the growing interest in transport of innovative firms such as Google and Apple as an evidence for the growing relevance of Mobility-as-a-Service.

As new technologies emerge, customers expect these to be available to facilitate an easier use of services. However, many at the Forum agreed that, in spite of certain new trends in mobility patterns, the overall needs of passengers have remained the same. Public transport has to be reliable, safe and efficient. Means of transport need to be easy to find, to book and to use.

Operators' experience and current challenges

The discussion also showed that the Finnish model is not entirely new. Main line rail operators, for example, have experimented with different forms of intermodal offers. In fact it is part of the business strategy of many important players to expand in different transport modes and develop into true "mobility providers".

There are in fact ample possibilities and variations in intermodal travel offers. Mobility cards offering combined access to public transport, car- and bike-sharing exist in many cities. In Germany the incumbent rail operator has been extending its activities outside of the railways for years and is currently the biggest urban car- and bike- sharing provider.

The discussion often came back to problems that were encountered by operators in ongoing or past projects in intermodal passenger transport. These include legal uncertainties and coordination problems but in some instances also the lack of real business cases for concrete offers.

Many participants agreed that the biggest challenges were not technological ones. Enormous coordination, for instance, is required for a variety of transport operators to be covered by the same ticketing regime. While Switzerland manages to offer mobility passes that cover most transport means in the entire country, similar initiatives have encountered major obstacles in bigger countries. A challenge for bigger countries lies in the integration of long distance and urban offers. In some cases long distance tickets are offered with a "city option" that allows access to public transport in the destination cities. Before such a scheme could be implemented in Germany it was necessary for the operator to negotiate bilateral revenue sharing agreements with several hundred entities providing public transport in the different cities.

Mobility platforms - an integral element of intermodal transport

Mobility platforms form an integral element of intermodal transport. To date there is no fully functional example of a full-fledged integrated mobility platform. There are however pilots and trials aimed at gathering experience and trying out different variations of this business model.

The most prominent examples are currently focused on the German-speaking area. Some of the initiatives are:

- **SMILE** (Vienna Utility Company and Austrian Federal Railway) – pilot started in January 2014. The SMILE platform and app enable integrated planning, booking and payment for public transit, taxis, (e-)cars and (e-)bike sharing, parking and charging in the whole country of Austria.
- **moovel** (Daimler Mobility Services) – launched in July 2012. Currently covering five regions in Germany (Stuttgart, Berlin, Munich, Nuremberg and Rhine-Ruhr), as well as long-distance rail country-wide. Since July 2014, it offers services in other countries: Austria, Canada, the UK, Italy, the Netherlands and the US.
- **Qixxit** (Deutsche Bahn) – launched in October 2013. It integrates numerous country-wide mobility services: local and long-distance public transport, car rental, car and bike sharing, taxis, long-distance buses, airlines. Stuttgart Services (Stuttgarter Straßenbahnen with 13 consortium partners) – currently in beta-version, launch expected in 2015. The appeal of the approach lies in the integration of multimodal mobility with city services (libraries, museums, baths) and retail (gastronomy, shops & stores). Waymate /Allryder (start-up) – long-haul version (Waymate) launched in December 2010, short-haul version (Allryder) in February 2014. Mobility providers on platforms are railways, airlines, long-distance buses, ride sharing, car sharing, taxis and local public transit.

(Source: Van Audenhove, F.-J., Korniichuk, O., Dauby, L., & Pourbaix, J., The Future of Urban Mobility 2.0. Imperatives to shape extended mobility ecosystems of tomorrow. Arthur D. Little and UITP, 2014)

The discussion clearly showed that as integration of the modes is deepening, passenger rights and liability issues are becoming even more important. Travel offers that are purchased in packages become very complicated if something goes wrong at any point of the travel chain. Here the experience of the airline industry can be seen as a positive example as precisely this challenge has been overcome: liabilities as well as rights and duties of travellers that book over online platform or travel agencies have been clarified. Yet the complications that were encountered in this process show the work that needs to be done when it comes to integrating completely different systems such as rail, air taxi and urban public transport.

Mobility platforms as a market place for transport

The central element of Mobility-as-a-Service requires a **mobility platform** that offers mobility services across modes. Similar platforms had already been developed in the past and several examples were presented and discussed at the Forum (see box). A controversial question that emerged was who should set up such platforms. The experiences presented showed that manufacturers as well as transport operators that are active players in the transport market have the capability of developing such platforms while allowing the necessary openness to other providers to be integrated in them. Yet to achieve a fully transparent and equal system an independent body would have to be in charge of this task in the future. This however seems complicated and it remains questionable how it could be managed and financed. Overall it became clear that operators, manufacturers as well as many newcomers currently have a keen interest in mobility platforms. Comparisons were made to booking platforms in other sectors. A mobility platform could be considered

a virtual market place for transport services. Currently these are for the most part distributed directly via their producers. Once it becomes lucrative, producers will take their product to the market instead of distributing it themselves. It was pointed out that, while a high share of airline tickets is sold indirectly via booking platforms and travel agencies, rail and public transport have a very low share.

As to the role of incumbent rail operators in the process it was claimed that, due to their national focus, incumbent operators' interests are inherently opposed the European Commission's vision of a borderless European mobility distribution model. The incumbent operators themselves, on the other hand, find that they need to play a crucial role in the development of intermodal transport offers as they have the necessary experience and knowledge. They would furthermore provide for the necessary critical mass of customers to roll out such systems.

3. Breaking down barriers – what is needed? Technological solutions to drive innovation.

In the third panel the discussion mainly revolved around the technological and infrastructure needs highlighting how technological developments drive changes in the transport system.

It became clear that, while there is a vision (or also several different ones) that builds on what is theoretically possible with the use of modern telecommunication technologies, the individual steps to realize such a vision each trigger a set of complicated challenges.

Many participants underlined that it is necessary to make use of existing technology in order to achieve better usage of already existing infrastructure and services in the first place. In fact, it was pointed out that one should focus the application of MaaS on areas where good physical connections are already in place. Nevertheless, the question of the development of new technologies and their deployment also came up. In principle, MaaS is about integrating transport modes through the internet. This can be seen in the context of connected infrastructure and the concept of smart cities[2] which leads to the question of how to guarantee the necessary availability and capacity of internet connections.

In this context there were different opinions on the desired role of (private) cars in the future. It was, however, clear that as regards interconnected systems cars are the most highly developed example. Connected cars and also driverless cars are ready to be deployed from a technological perspective. These would have the capacity to connect to the city infrastructure and other vehicles. They furthermore integrate all known smartphone features into the car. According to some participants this provides a useful basis to explore further application of similar technologies to public transport.

Yet at the same time the limitations to such an approach also became clear. Many agreed that the development of telecommunication infrastructure will have to come first in this process. The requirements in terms of connectivity and capacity of mobile data networks are becoming much higher in a system that makes use of the internet to a much larger extent. Therefore, more support for the physical but also for the digital infrastructure that needs to be developed for such an interconnected system is needed.

The discussion clearly showed that the growing connectedness of citizens drives changes in transport. It was presented for instance that the availability of smartphone applications were the main reason for the strong increase in usage of car sharing. The service had existed before but the technology of the on board units and smartphone applications made the system free floating and instantly accessible.

Overall the presented examples showed that the technological side of concepts similar to Mobility-as-a-Service is no longer an obstacle. Cases that were presented for already available encompassing mobility solutions were the Schaufenster Elektromobilität in Berlin and the case of Singapore. Several other examples showed that for example applications automatically calculating and paying fares in public transport are already available and in use.

The remaining challenges are mainly of a regulatory nature. In the following panel regulatory challenges and policy initiatives at the European level were addressed in more detail.

2. Smart cities, smart regulation? , Florence 6 February 2015 (follow this link to read more)

4. The regulatory challenge to create a market place for mobility. How much EU? How much subsidiarity?

The fourth panel discussed some of the regulatory initiatives that are concerned with MaaS. It also picked up on several points of criticism of the concept as well as on the issue of subsidiarity and the role of the EU.

The discussion at the Forum saw the European as well as the municipal public administration's perspectives. It is interesting to note that the city of Helsinki had decided to use the approach primarily to so save public money. There is a lot to be gained for public administration as well as for private companies if a new service layer enables a more efficient use of existing transport infrastructure. From a local administration perspective it means making better use of existing services by connecting them better with their users. As was pointed out at the Forum municipalities face the global transport challenge in a very direct way: immensely increasing congestion and the fact that the 4% average of which a car is actually used, call for actively supporting the trend of moving "from ownership to usership".

MaaS shows what a different type of mobility could look like in the future, yet it was made clear that much effort will be needed to realize the vision. The discussion showed that, while being a creative approach that adds new considerations to the debate, the underlying issues of the concept had already been subject to political initiatives for a long time, especially at the European Union (EU) level. The European Commission identified several issues with intermodal transport in their 2011 White Paper: for instance, the barriers to multimodal travel information and journey planning because of insufficient access and availability of the relevant data.

Therefore, the Helsinki experience is especially interesting from the EU perspective as it points at how a form of integrated ticketing could be applied in practice. This issue has been on the Commission's agenda for some time and can currently be seen in light of the new roadmap for delivering multimodal travel information, planning and ticketing services[3].

3. Commission Staff Working Document (2014) - Towards a roadmap for delivering EU-wide multimodal travel information, planning and ticketing services

The discussion showed that the approaches which were discussed throughout the day rely on the availability of a large amount of data, which to a significant extent have still to be collected and made available. The question arises if and for which cases companies should be legally required to provide certain data. The Commission is active in promoting Real Time Traffic Information. This implies the availability of different categories of data each of which faces different problems. For instance, there is a need to have information on the localization of bus stops and stations, but also information about geo-localization of such places that helps for instance to indicate how much time it takes to get to a specific platform at a train station. One open question is also who would be in charge of guaranteeing the quality and reliability of such data. Some of the data do not pose substantial conflict and have already been made openly accessible. On the other hand, other sets of data, such as fare information, might imply some difficulties. In fact, the European Commission has expressed the intention to make basic information about fares to become publicly available which is difficult for operators that apply different types of loyalty and bonus schemes. Another aspect that will need to be clarified is the charging model, and how providers of data will be reimbursed. It was pointed out that Google plays an important role in this as they are gaining a powerful position as a source for travel information.

A shared vision?

The discussion showed that a true shared vision on achieving intermodality is not yet present. There is no true common understanding of "the how and the why" of integration of the transport modes. While some intermodal offers exist on the market the transport companies do not necessarily face incentives to share valuable and business relevant data with third parties. The question of the business case for the data layer is also not solved as it is unclear whether and how companies would be remunerated for providing their data. This would require that there is willingness to pay for the usage of the services that provide the data. Going one step further from travel information to ticketing will imply even more obstacles as already the information on ticket prices is one that transport companies not necessarily like to share. It was concluded that there are still institutional impediments to intermodality and it will take time to develop crosscutting platforms and

also to develop the necessary trust between the transport companies providing and the platforms using the data.

The subsidiary principle and the role of the different levels of administration and government were also addressed during the discussion. The limits of EU action in an area where the local or municipal level is the main actor were recalled during the discussion. This means that as far as the instruments are concerned EU action in this area is focused on formulating a policy framework, funding research and innovation and facilitating the exchange of experience and best practices.

Naturally not all stakeholders agree on the same goals, strategy and vision: for example, public transport operators had doubts about the usefulness and feasibility of the long term goal of a pan-European electronic ticketing system.

Also the role of the state vis-à-vis the private sector needs to be defined more clearly. The state has a role to play for establishing a level playing field. Standardization of data exchange formats plays an important role in that. In the discussion it was also warned of the risk that standardization can hamper innovation, if there is not enough flexibility to incorporate new systems as they are being developed.

At the end the discussion clearly showed that, in spite of the obstacles, there is need for pro- active policy. It was often pointed out that the European Union has the chance to be the forerunner in an unfolding trend. The increasing possibilities from mobile technologies and the commercial potential behind this development will inevitably translate into profound changes in the upcoming years. Therefore, policy should avoid being reactive and only respond to the conflicts as they arise. It should rather anticipate the upcoming development and develop a forward looking vision.

Further readings

Hietanen, Sampo, 2014, 'Mobility-as-a-Service' – the new transport model?

In this article Sampo Hietanen outlines the Mobility-as-a-Service paradigm. Taking a business perspective he makes the case that if mobility offers existed that would include a variety of transport modes these would be taken up quickly by the market. Given the necessary flexibility and reliability these could easily compete with the option of owning private cars. This development is supported by new players on the mobility market on the one hand and advances in technology on the other

Fritz, Christian, 2014, Mobility-as-a-Service: Turning transportation into a software industry, VB News

The article discusses the business aspect of changing mobility trends. The foreseeable changes due the combination of the emergence of self-driving cars and increasing interconnectedness of citizens will radically reform the current market structure.

Heikkilä, Sonja, 2014, Mobility as a Service – A Proposal for Action for the Public Administration. Case Helsinki, Master Thesis at Aalto University School of Engineering

The study discovers a way to reorganize the passenger transport sector so that it would promote the concept of "Mobility as a Service" (MaaS). It provides a suggestion of a transformed mobility sector. Furthermore, it provides a scheduled proposal for action for executing the transformation. The study examined former transformations in four industries: telecommunications, energy, airline, and railroad industries. The author aimed to identify the most significant factors that contributed to the success of the transformations. These numerous factors were then formed into proposals for action and crystallized into seven most considerable ones. The seven proposed actions were then appointed to a time scale from 2015 to 2025, thus creating a road map for the transformation of the passenger transport sector in Helsinki.

All Ways Travelling, 2013, Phase 1 Final Report

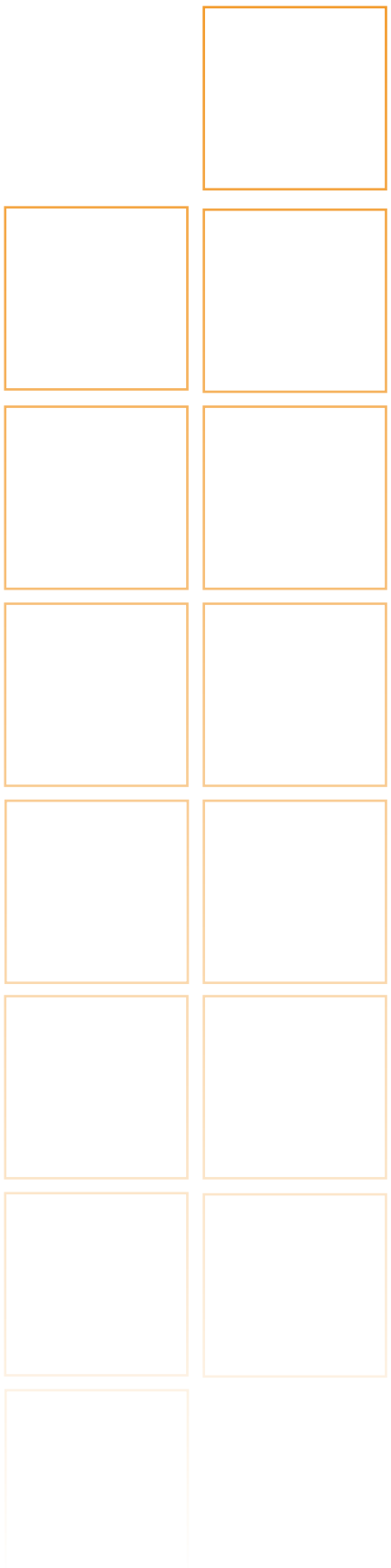
All Ways Travelling is an Amadeus-led consortium comprised of BeNe Rail, IATA, Thales, UNIFE and Zeppelin University. It has been appointed by the European Commission (DG MOVE) to develop and validate a model for a multimodal pan-European passenger transport information and booking system. The final report summarises the main findings and makes several recommendations to the commission on how such a platform could be established.

UITP Combined Mobility Platform, 2011, Becoming a real mobility provider. Combined Mobility: public transport in synergy with other modes like car-sharing, taxi and cycling…

This UITP opinion provides Recommendations for successful collaboration between public transport & Combined Mobility services. It argues that only a Combined Mobility offer can make public transport compete with the privately owned car in terms of flexibility and cost-structure. The use of new technologies such as mobile phones will increasingly make end to-end journeys even more convenient. Combined Mobility services are not just a separate add-on, but instead form an integral part of the mobility product range.

Van Audenhove, F.-J., Korniichuk, O., Dauby, L., & Pourbaix, J. The Future of Urban Mobility 2.0. Imperatives to shape extended mobility ecosystems of tomorrow. Arthur D. Little and UITP, 2014

The report summarizes some of the key insights from the "Future of Urban Mobility 2.0" study and puts them in perspective by looking into specific challenges and opportunities within Greater China. It concludes that the development of a long-term urban mobility vision is necessary which requires adequate and secure funding. In order to make the system functional it needs to be "networked" in order to create an ecosystem of the different stakeholders in the system.



European Commission, 2014, Commission Staff Working Document - Towards a roadmap for delivering EU-wide multimodal travel information, planning and ticketing services (SWD(2014) 194 final)

This Commission Staff Working Document Towards a roadmap for delivering EU-wide multimodal travel information, planning and ticketing services identifies the major challenges to a more integrated comprehensive transport services. It presents the advantages of multimodal travel information and planning services suggesting to establish an integrated approach in the coming years.

Florence School of Regulation Transport Area, 2015, 3rd European Intermodal Transport Regulation Summary "Mobility-as-a-Service: From the Helsinki Experiment to a European Model"

This document summarises the content of the presentations delivered during the 3rd Florence Intermodal Forum, offering short summaries of each presentation, and illustrating the main points made and matters treated. The panels featured regulators, operators and a variety of stakeholders in particular from those institutions involved with the Helsinki case and from the European commission. The presentations were structured around three themes:

- presenting the implementation of the Mobility-as-a-Service concept in the urban area of Helsinki;
- looking at today's passengers' needs and how operators can address them;
- identifying some relevant technological initiatives that are driving the change in transportation and mobility, especially in the area of the ICTs; and
- crystalizing the enabling role that EU regulation might play.

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The Florence School of Regulation (FSR) is a project within the European University Institute (EUI) focusing on regulatory topics. It works closely with the European Commission, and is a growing point of reference for regulatory theory and practice. It covers four areas: Communications and Media, Energy (Electricity and Gas), Transport and Water.

The FSR-Transport Area's main activities are the Florence Transport Forums, which address policy and regulatory topics in different transport sectors (Rail, Air, Urban, Maritime, Intermodal transport and Postal and delivery services). They bring relevant stakeholders together to analyse and reflect upon the latest developments and important regulatory issues in the European transport sector. These Forums inspire the comments gathered in this European Transport Regulation Observer.

Complete information on our activities can be found online at: *fsr.eui.eu*