

May 2014

# Minutes

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TRANSFORuM Thematic Workshop:

**Multimodal Information,  
Management and Payment**

20 / 21May

Tallinn, Estonia

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## 1 Introduction

Number of participants:	9
Countries represented:	Estonia, France, Germany, Greece, Italy, Poland, Sweden, United Kingdom
Men / women:	6/3
Policy makers / industry / academia:	3/5/1

1 moderator and 2 rapporteurs from TRANSFORuM facilitated and took notes at the workshop. 4 additional consortium members participated.

The participants were welcomed to Tallinn, with a short introduction to the aims and objectives of the workshop and a presentation from the Deputy Mayor of the city about the free public transport that has been in place since January 2013. A round of introductions took place and participants were given guidance as to the proceedings of the two half day event. It was explained that the main goal of the workshop was to share the progress made on the ITS roadmap within the TRANSFORuM project and to gain perspectives and insight on what should be included in the final version.

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## 2 Free public transport in Tallinn

The main reason to introduce free public transport in Tallinn was that before its introduction only a small share of the system's costs were covered by ticket sales (53 million € costs annually compared to 17 million € from ticket sales (5 million € from non-residents)). In parallel, the number of car licenses was rising rapidly.

In order to balance the budget, the free public transport system is used as an incentive to register as a resident in Tallinn – which many people did not do before, reducing the tax revenues of the city. To get free access to public transport, people need to be registered. Today, people use contactless smartcards so that journeys etc. can also be monitored. Because a number of people (elderly, veterans etc.) already had the privilege of free public transport before, the smartcard has got additional benefits for the users (e.g. discounts in pharmacies) in order to be accepted by them as well.

The increased municipal tax revenues are the main source of funding for the scheme. Public transport usage increased, but car usage did not decrease. After trains within the city limits were included, their ridership quadrupled within months. Currently, there are no other financial incentives for not using the car in Tallinn, but a park&ride system is already in place. As a next step, public transport

will be free for park&ride users, also if non-resident. Another possibility would be a congestion charge for the city centre, something that has not yet been combined with free public transport in any city.

Stakeholders wondered what is done with the data that is collected via the smartcards. While there is a contract with the technical university for analysing the data, there is not yet an open data strategy. The data is not available in the internet, but it might be possible to obtain data from the city upon request. Some worries that had been raised before the introduction did not materialize: neither is the public transport overcrowded by short-distance riders in the city centre, nor are homeless people travelling around, nor did service parameters (punctuality, cleanliness etc.) go down.

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### 3 Understanding the motivation of the White Paper goal

In general, the White Paper goal is pointing in the right direction. However, it is quite ambitious and whilst moving towards the goal it should be taken care of not applying a strict top-down approach. The challenge is coming from the multimodal as well as the European-wide ambition. For example, cross-border transport makes up only a small share of the total passenger volume – with higher relevance for small countries. Every single region has got its specific characteristics and the experience from the European Electronic Toll Service (EETS) Directive (2004/52/EC) shows that a top-down approach does not necessarily mean full compliance by the member states. Feedback from outside into discussions in Brussels is important.

The drivers behind the goal should be distinguished: While multimodal information, management and payment are important as they create economic benefits, there are as well wider political reasons to foster the respective systems. From the stakeholders' point of view, the goal should not be about imposing (technical) standards – those come from industry. Still, governments can work on regulatory standards and facilitate and fund development of standards, also highlighting which standards should be developed and used by the industry.

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### 4 Topic A) Multimodal information systems

For the information topic, open data and good cooperation are of vital importance. Currently, there is a lot of proprietary data and common platforms are missing. Even if fare structures etc. are often different, this should not prevent the exchange of data in a common format, which does not necessarily imply a uniform technical system. The role of the EU could be to describe the types of necessary standards, not defining them in full detail.

Usage of the raw data material should be free, while products using the data (apps, services etc.) could well have a price although there was some opinion that free data should be made available for free to the end user and not sold to developers. Regarding the use of data, two levels should be distinguished: First, platforms that allow the exchange of raw data and are addressed towards operators and developers. Second, systems dealing with the information and services for the clients (or passengers). The EU should formulate strong recommendations, but not be too strict in terms of obligatory rules. This is also because there are as well other data sources and the whole topic reaches out beyond the transport sector, for example by integrating weather or health data. It should be noted, that there is also a strong lobby against standards because there are currently businesses earning money in this field.

Other than basic timetable and fare information, the provision of real-time information is more controversial. Real-time data is mostly controlled as much as possible, as it is of high value for the operators. There is as well an issue about data quality and reliability which gets more complicated when giving out real-time data. It then becomes a question if for example every system providing information to passengers would then know about the closure of a specific train station.

Stakeholders trusted in a certain potential of the market to bring up the best solutions, but still there is a need for regulation and guidance, as the market alone would only bring up fully efficient solutions in a perfect world that does not exist. Regarding policy measures towards the White Paper goal, quality control of the data used by information systems is very important, but cannot be done by the EU itself. It remains an open question how to build consensus in those fields where interests conflict. However, there should be a general interest of stakeholders and actors in the field, so that it should be possible to not only reach a common understanding, but as well to get a common commitment. The whole process of creating the framework needs to be on a partnership basis. Within this partnership, the main role of the EU should be to find ways to overcome specific barriers that remain.

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## 5 Topic B: Multimodal management systems

Until recently, it has been quite challenging to gather all data required for multimodal management. Nowadays, this becomes partly easier, including new communication channels like social media. Yet, there are not many real-time management systems, and these do only seem appropriate (and necessary) in large urban agglomerations. Only in these urban areas they can provide added value. Stakeholders think that more information might change the behaviour of users, but will not change how operators behave or how they deliver their respective networks.

Overall, stakeholders thought that multimodal information and management systems could be put on a common scale. Similar to the information topic the question arises on which regional level which kind of information and management tools can be useful? Stakeholders had the opinion, that multimodal management is not the most useful tool to make the transport system more efficient. In order to encourage usage of public transport etc. is more a task for every region than for the EU. It is also a question whether you want to use a management system to organise infrastructure assets or to organise the traffic flowing on the infrastructure.

Taking a perspective on specific corridors (i.e. a core network connecting the EU member states) could be useful for the EU. Again, however, a multimodal management tool would in these cases not necessarily help with wider policy goals like modal shift. Instead, a multimodal management system would help in the day-to-day operation of infrastructures. In some cases, there are already protocols in place which are applied in the case of severe accidents or road closures, providing routines for rerouting etc. These may not serve modal shift goals but could be improved by utilising multimodal management.

To summarize, stakeholders stressed that multimodal management is not the most important thing to foster modal shift. It does sometimes not fit together with actual infrastructure investments, and then the best management cannot help. Stakeholders believe that for multimodal management systems a bottom-up approach is the way to follow, while for the EU level there is still room for strategic decisions in other areas, e.g. regarding transport corridors and infrastructure investments.

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## 6 Topic C: Multimodal payment and ticketing systems

The payment and ticketing topic is the most complicated part of the White Paper goal. The market is complex and many actors are involved.

Payment is also the topic where revenues are affected, but lots of the transactions in the current system are of low value, especially for local public transport operators. The respective transactional costs are very relevant and create a barrier when it comes to involving even more operators in collaborative schemes. Stakeholders therefore put a focus on payment systems for small-scale transactions that are already in place, namely credit card payment. Credit cards do also imply back-office costs, but the issuing banks can bring in their expertise and experience in multi-actor settings and for the user it can be quite convenient to use a payment system that he or she is already using in other contexts. In contrast, many solutions that exist today within the transport system offer similar functionalities but are not compatible with each other. E.g. the Oyster Card in London is very popular

and successful – but it is not accepted in the rest of the United Kingdom where another system is in place which is technically incompatible with the Oyster system. Bringing all existent systems together is a complex task – which makes banks such an attractive actor by potentially bringing their payment system, which is already prepared for complex actor settings, more closely to the transport sector. Mobile phone operators are a similar candidate with back-office routines and elaborate billing systems already being in place. Regardless of the chosen technology, it must not be forgotten that the systems will need to serve the needs of all customers. For example this requires considering people who do not feel comfortable with using modern electronic devices, e.g. elderly or disabled people. Thus, the systems should in general be compatible with a variety of distribution channels, including conventional paper tickets. This is not only a question of generations, but generally makes systems more flexible in order to allow adapting them to changing contexts.

Beyond the technicalities, the distribution of money in an integrated system remains a complex process. It gets even more complicated as soon as cross-border journeys are concerned. On the other hand, it may be questionable how big the demand for integrated cross-border payment and ticketing really is, except for regional contexts where settled schemes of a manageable size may even be already in place. For this sub-topic in particular, a close look on good practice examples and other sectors may be quite inspiring. For example, both Singapore and Hongkong managed to install powerful transport authorities, in Singapore even a bank founded by the transport operators, which take the role of a trusted 3<sup>rd</sup> party that coordinates the activities of all involved transport operators. The mobile phone sector provides an example where the industry came up with common standards that allow using mobile phones also abroad, and mobile roaming allows users to not occupy themselves with foreign tariffs etc. Here, the EC has as well accompanied the process by regulating roaming charges. This means that there are proven examples where complex multi-actor settings actually work and allow for greater user convenience. Another case is road tolling, where European directives have introduced a common framework that ultimately should allow trucks to drive across Europe with only one on-board unit for tolling, with all necessary transactions being shifted to the back-office. However, while road operators and the technical infrastructure are well advanced, the possible service provider are still absent because business cases still lag behind in this case as it is not so easy to understand how many users will utilize the European Electronic Toll Service (EETS); on the other hand huge investments are required to implement the service. Also in this case it is quite evident that the market/industry has to play its role (as happens for the mobile phone) and an institutional top-down approach does not bring a concrete and feasible solution.

The provision of all required data for an integrated payment and ticketing system is another issue. Regarding pricing information, this is not sensible in case of e.g. fixed local bus fares, but operators want to keep their hands on the flexible pricing of long-distance trips which can change from

minute to minute. Operators do as well want to keep track of what their customers purchase and how they travel. All these data often make up the business case for operators. This points back towards the information topic and as an issue it lies even ahead of any actual payment transaction. On the other hand, users might have completely different views how their data should be allowed to be used by operators. In fact, many people use services for convenience without being conscious about what these services might mean for their privacy. Still, stakeholders expressed scepticism if it will be sufficient to explain customers the value of tracking their trips (e.g. to better plan services) and if they will accept this. The limits for data usage are quite inconsistent across different European countries, and this is an issue not only for the transport sector but more widely affecting other policy fields as well.

Beyond data privacy, stakeholders as well raised concerns regarding the issue of passenger rights: Who will be responsible in a multi-actor setting in case of unplanned delays etc.? Who is paying what? Who needs insurances? A conventional ticket is a legally simple contract with a specific transport operator, but with integrated ticketing this gets way more complicated. Here, the airline sector provides an example of an integrated and relatively transparent system (in form of the IATA rules) that defines procedures, reimbursements, and so forth. For the aspired framework on Multimodal Information, Management and Payment, this ultimately implies that also a choice has been taken by the Commission whether to develop it more from the operators' point of view or from the users' point of view.

Despite all complexity in building up an integrated payment and ticketing system, its purpose should not be forgotten. The system should make the use of public transport easier across modes and operators, also making international travel less complicated. But this has to come together with providing the physical basis for such usage, e.g. by assistance and good physical signage when arriving abroad – irrespective of the respective payment or ticketing process. This means greater physical accessibility of the transport system. All this should be taken into consideration by the Commission, who would do best in taking a facilitator role and coordinating the parallel activities of all other involved actors.

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## **7 Bringing all systems together & recommendations for EU strategic policy**

The White Paper goal on Multimodal Information, Management and Payment sets a close timeframe until 2020 which is virtually 'tomorrow'. Stakeholders were very sceptical about the achievability of the goal for the payment topic, and the management topic as well seems challenging.

Most probably, the framework will need to be developed in parallel with the actual systems that constantly emerge. The challenge is to bring the vision behind the White Paper goal into life.

Guidelines and rules regarding open data and privacy issues are of particular importance and should be provided by policy actors. This will be critical because there are already technologies available that enable new systems, and the spreading of new technologies takes place faster and faster. The challenge is that two kinds of drivers affect the field in parallel: the political vision and will to foster modal shift by intelligent systems and the technologies themselves that are constantly brought up by the market. Aligning these drivers and getting towards a harmonic system will pretty much depend on how good the exchange of information between actors works. As an additional challenge, also actors from outside enter the field by developing apps etc., bringing in a whole range of their own interests. Stakeholders state that operators are willing to freely share information on timetables etc., but a reluctance remains regarding pricing. For policy this means that beyond providing guidelines on open data, the benefit of the system(s) for all should be clearly shown, and that the process of creating the framework and the system(s) should be constantly supported, also by showing good practices and maybe also by funding pilot projects.

A number of open issues remain. First, the user perspective is not enough reflected until now. Users (or passengers) might well be happy if they do not need to see all back-office transactions when they use the aspired systems, but in general, the current discussions do not really listen to their interests. This is also another reason why policy should provide comprehensive guidelines on privacy issues. The social media also have a potential to change this situation because operators will increasingly have to listen to their customers via these channels. Operators can also learn from these new communication channels, getting a new source of information and also taking a new opportunity if they learn e.g. from the retail sector with its personalized offers etc. The actors in the field should also take care that they are not surprised by new actors who might eventually enter the field and do something that did not seem possible until then. Technical people, i.e. those who actually develop the systems, also need to be involved in the discussions, so that they can find their place in moving towards the White Paper vision. Finally, it remains an almost philosophical question if even the best smartphone application with millions of trip requests (or something similar) will in the end actually make any person use a bus or train instead of a car – and if that would be because of this application.

Regarding the mid-term review of the Transport White Paper to be conducted in 2015, stakeholders urged for more specifications and concreteness regarding the goal on Multimodal Information, Management and Payment. The drivers behind the goal and its overarching vision should be made transparent, e.g. if the goal is meant to serve environmental purposes, transport system efficiency or customer convenience. The scope of the system (all transport modes? every geographic

scale?) should be clarified. Still, the goal should not define issues too strictly because technologies are constantly developing but without a "legal" imposition only following the market. It seems more appropriate to define specific desired outcomes.

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## 8 Final discussion

Stakeholders believe that the process towards a Multimodal Information, Management and Payment System in the end comes down to a customer-led process. If operators can match what consumers want, more people will travel. While this might raise a question if all operators are actually interested in many new customers (depending on their respective source and functioning of funding), this also raises the questions if the goal is of a European interest? On the one hand the will to foster modal shift motivates the vision of such a system – one the other hand it is not yet decided that such a system is the most useful thing to achieve the aspired modal shift.

Standards (open data, privacy), passenger rights etc. are of great importance for the future development of the field. It is true that technologies are spreading fast, but regulations and standards need to keep this pace as well, optimally even showing the way to go. This holds true even if actual passengers do already use systems before all issues have been clarified – convenience must not be an excuse to stand back from setting standards and regulate. Standards and regulations can also trigger innovations like new kinds of insurances.

Trust and a level-playing field between all actors are important. For TRANSFORuM's roadmap this means that roles and responsibilities of actors should be distinguished more (also between different policy fields), and that the importance of a common commitment should be highlighted. Within this multi-actor setting, the Commission should take the role as a facilitator. Some kind of a 'code of conduct' or voluntary agreement could also be suggested as one element in the roadmap.