‘Mobility as a Service’ – the new transport model?

What if a service provider took care of your mobility requirements and the only choice you would need to make is how many minutes in advance you would need to order your ride? Your operator would take care of all your transportation needs locally and, if chosen, abroad. What would it take to create a package that offers a better service-promise than a privately owned car? Advances in technology are enabling new ways for service offerings and new players are regularly stepping into the mobility market.

The ‘digitalisation-wave’ soon to hit transport

Many industries have been dramatically hit by a wave of digitalisation and transformed services. The telecoms sector, media industry and even the banking sector have radically changed over the last couple of decades. And the biggest change in the media sector was not made by the media companies themselves but by Google and Facebook etc.

Transportation has had unchanged structures since owning a private car became dominant. Nowadays, transport systems are a strange combination of separately financed traffic systems, political decisions and local businesses, and the consumer is always left alone to deal with the differences.

For example, if I wanted to compare the cost of using a taxi, bus, train, airplane, rental car (or a private car) to make a 500km-long journey, the calculation would be very difficult.

Bus transportation is subsidised in one way and trains in another, and private cars have high start-up costs but usage is relatively inexpensive. A flight ticket is perhaps the only example where all costs are somewhat included in its total price.

‘Mobility as a Service’ – the new transport paradigm

Mobility as a Service (MaaS) is a mobility distribution model in which a customer’s major transportation needs are met over one interface and are offered by a service provider. Typically,
services are bundled in to a package – similar to mobile phone price-plan packages.

The vision is to see the whole transport sector as a co-operative, interconnected eco-system, providing services reflecting the needs of customers. The boundaries between different transport modes are blurred or disappear completely. The ecosystem consists of transport infrastructure, transportation services, transport information and payment services.

Drivers towards new thinking
The needs and expectations of the users will continuously become more demanding and fragmented, while the resources for developing transport systems are decreasing. New technologies enable users to take a more dynamic, proactive role as a developer and data producer in the transport system. The user will no longer be the only consumer in the transport system – instead, the whole transport system will be generated with, to and by the users. The role of data and information will be crucial. Transport data, data infrastructure and physical transport infrastructure will together compose the essential platform for mobility services.

Bringing MaaS to the customers is made possible by the simultaneous availability of multiple technologies such as wireless broadband, smartphones and tablets as interfaces, and location-based services and connected cars. Already evident changes in the users’ values, attitudes and behaviours are pushing us towards a shift from ownership to utilisation. Today’s technological solutions already enable us to answer the users’ seamless mobility needs to a certain extent. In the future, through the use of automated vehicles, MaaS will substantially enhance productivity by offering the level of convenience of a private vehicle but without the physical ownership.

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Benefits of considering MaaS
User-benefits include: developed, personalised and smart mobility services reflecting the users’ diverse needs; seamless, well-functioning transport services (transport as an experience, your personal 90-minutes per day); and easy access to mobility.

For the public sector, benefits include: full deployment of ICT improves the effectiveness of the whole transport system; efficient allocation of resources (based on real needs of end-users); growth employment and vitality generated by new businesses (public sector as an enabler); and improved traffic incident management and a more reliable transport system through advanced data deployment.

For businesses, benefits include: profitable markets for new transport services; renewed opportunities for the traditional transport and infrastructure business sectors as part of...
innovative service concepts and co-operation; and smarter transport connections for all sectors.

Market potential of MaaS
The world is moving towards ‘everything-as-a-service’ thinking. At least in developed economies, the competitive advantage will lie in service business providing smart and advantage services and comprehensive life-cycle solutions. On average, consumers spend close to €500 per month on transport costs. For an operator who takes care of all the transport needs of the consumer, the average revenue per user (ARPU) is potentially high. ARPU in mobile telecommunication lies below €30 in developed countries which means that the potential market for MaaS is over tenfold that of mobile markets. Market size or customer behaviour have not been proven so far.

The advanced European transport policy as a platform for developed transport services and new business opportunities
As first steps, all we need is open minds and encouragement. Through smart regulation, the public sector can act as an enabler building a regulative framework that unchains the potential of the various actors. The focus of regulation should be ensuring transparent market conditions and fair market performance and securing the legal position of the user (as a consumer) instead of technically-focused and detailed regulation of individual transport modes. In some cases, deregulation should be considered. Appropriate data policy is a crucial catalyst – or obstructionist – for progress.

Market structures and the new offering
Mobility operators will most likely change the logics of the rest of the value chain. They integrate the offering of transport providers and infrastructure to a consumer package. The same logics already apply, more or less, in the aviation industry where a flight ticket is often bought from a travel agent who puts together the flights and airport costs.

Chance or a threat for public transport operators?
With this new offering, traditional public transport networks/operators can benefit in two ways. On the one hand, having mobility operators makes it easier to use public transport as part of the value chain. On the other hand, some public transport operators can become the operators of new mobility. Public transport operators will have to look at their strategies in a new light sooner than one might expect.

How to keep up with new technology and evolving markets?
On 16-19 June 2014 in Helsinki, the 10th ITS European Congress will take place. Organised by ERTICO – ITS Europe and the European Commission, and hosted by ITS Finland, the Finnish Ministry of Transport and Communications and the City of Helsinki, the event will address Mobility as a Service in many of the high-level speaker sessions.

Reference
1. www.itsineurope.com/its10

Sampo Hietanen is the CEO of ITS-Finland – a network of over 70 organisations varying from authority, business to research. He is actively involved in developing new usage-based taxation schemes and promoting the big shift in changing transport network structures with modern technology. Sampo’s background is in executive positions in civil engineering and ITS.