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|  | **World****Conference on**Transport**Research****Society** |

**Special Interest Group G1: Governance and Decision-Making**

**Research Day 30th May 2017**

**Leipzig**

**Rapporteur Report: Ioanna Moscholidou**

**Governing the Smart Mobility Transition - Programme**

**Research Day: 30 May 2017**

**Kongresshalle am Zoo, Leipzig, Germany**

11:00-11:10 – Introduction to the Day by Greg Marsden and Louise Reardon, Co-Chairs of the WCTRS Special Interest Group on Governance and Decision-Making Processes

11:10-11:20 – Key Governance Challenges: Perspectives from the US Transportation Research Board, Neil Pedersen, Executive Director TRB

**SESSION 1: GOVERNANCE CHALLENGES**

11:20-12:00 - PLENARY: New Actors, New Governance Challenges? Iain Docherty, University of Glasgow, UK

12:00-12:30 - Who are the winners and who are the losers in the smart mobility policy in The Netherlands? - Gironés, E. and Vrscaj, D. Eindhoven, The Netherlands

12:30-13: 00 - The case of Mobility as a Service: a panacea or chimera of urban transport and governance? – Pangbourne, K., Stead, D., Mladenovic, M., Milakis, D. UK, The Netherlands, Finland

**13:00-13:50 – LUNCH BREAK**

**SESSION 2: NORMALISING INNOVATION**

13:50 - 14:30 - PLENARY: Robyn Dowling - Governing Smart Mobility: Reframing the Categories of Transport Regulation, University of Sydney, Australia

14:30 - 15:00 - Constructing legitimacy for automated goods mobility in the UK – Hopkins, D. and Schwanen, T., Oxford, UK

**SESSION 3: CAPACITY TO CHANGE**

15:00 - 15:40 PLENARY: Governmental Capacity and Governance of the Smart Mobility Transition - Diane Davis, Harvard University, USA

**15:40 – 16:00 Coffee Break**

16:00 - 16:30 - Planning for disruptive transport technologies: how prepared are Australasian transport agencies? Stone, J. University of Melbourne Curtis, C., Legacy, C. and Scheurer, J., Australia

16:30 - 17:00 - Governing the Smart Mobility Transition: the experience of two UK Local Authorities – Copsey, S. Southern, R. and Fassam, L., University of Hertfordshire, UK

17:00-17:45 – Open Discussion – Key points from the day, facilitated by Greg Marsden and Louise Reardon

**17:45 Close**

**Rapporteur Notes**

These notes summarise some of the key points raised by the speakers at the research day. They are the interpretations of the rapporteur and do not necessarily represent the views of the speakers or their organisations. They are best read alongside the presentations which are available at <https://www.wctrs-society.com/special-interest-groups/topic-area-g-transport-planning-and-policy/>

**Introductory Session**

In his welcoming statement**, ITF Secretary General José Viegas**, stated that the very complementary selection of papers of the day adds value and strengthens the collaboration between academia, governments, and practitioners. Greg Marsden followed and set the frame of the day’s discussions by asking the participants to think what do we want the smart mobility transition to look like and how, when, and where we need to intervene to achieve the future we want.

**Neil Pedersen, Executive Director of TRB**, provided an overview of the current ‘smart mobility’ governance challenges in the United States. As technology progresses much faster than governmental response, governance challenges are exacerbated the inconsistent requirements between states and cities. These range from minimal or overly prescriptive regulations and lack effective combination of regulation and policy action. There are currently three main governance levels in the United States (local, state, federal), which do not necessarily have entirely separate remits. For example, in the case of Transport Network Companies (TNCs), safety and cyber security standards, and planning requirements are set at the federal level, while operator requirements, licensing, liability and insurance requirements, and infrastructure planning are delivered at the state level. However, issues such as driver background checks, which are different to regular taxis, are dealt with either at the state or local level, depending on the location. Inconsistent governance arrangements and standards across different places in the country lead to public safety, accessibility, and labour right issues. At the same time, the physical and economic accessibility issues related to new technologies are not being properly considered. In terms of autonomous and connected vehicles, regulation is currently focused on operational and vehicle standards, testing environments, and data protection. Broader issues, such as safety, congestion and land use impacts, and impacts on accessibility are yet to be addressed. Further challenges relate to the potential creation of a digital divide which will exacerbate current levels of transport related social exclusion; ensuring that new mobility will support rather that compete with current transport provision; and ensuring standardisation of data and information. The governance of these challenges can have a dramatic impact on the future of transport and is key in order to capture the benefits of smart mobility rather than exacerbate the current unsustainable transport trends.

**Session 1: Governance Challenges**

**Iain Docherty of the University of Glasgow**, underlined the need for better and new governance arrangements for transport and talked about how these can be achieved. In terms of the role of the state, he stressed that no smart technology or data can overcome the need for good policies. It is crucial to understand that contemporary choices that can lead to a better future or will lead to decades of fixing prior lack of intervention. Therefore, the state cannot simply facilitate intervention but has to act to ensure a transition to smart mobility will contribute positively to modal share, congestion, macroeconomic concerns and equality. Mobility maximisation cannot be the only deliverable of policies. Instead, specific issues such as shifts in taxation towards mobility aggregators, addressing information asymmetries and data commercialisation, and proactively addressing the digital divide issues, need to be thought through. Policy changes that favour profitable provision over social benefit can set us on a path that will compromise future policy making capacity. Equally crucial is determining what we want. Improved communication between all actors can help capture smart mobility’s potential to deliver wide socioeconomic and environmental benefits.

At the same time, understanding the role and interests of new actors is also considered a priority. There seems to be a consensus around certain elements of smart mobility; it is disruptive; the new actors are not necessarily known to policymakers, its consumers can simultaneously be producers, and that technology firms providing smart mobility services are also producing their own visions. The mobility market is rapidly growing and is estimated to reach 1.5 trillion per annum by 2025. New actors such as Apple, Google and Uber are interested in fundamentally changing how, why, when and where we travel. Of course, this means more, not less, mobility and the rise of global oligopolistic or monopolistic powers in transport. Ultimately, mobility is connected with other daily activities, allowing such actors to gain access and control over multiple aspects of our lives though elaborate, well-thought business plans.

The need for good governance was made clear by **Darja Vrscaj and Edgar Girones from the University of Eindhoven**, who spoke about who are the winners and losers of smart mobility policies in The Netherlands. In 2011, the Dutch government initiated the 'Beter Benutten' ('Optimising Use') programme, which allowed regions and businesses to work together to reduce congestion by 20% percent by 2014. A second phase of the programme that started in 2017 aims to achieve a further 10% reduction in journey times. Each region has the freedom to select its own set of measures, while targets are not binding. Vrsaj and Girones used the social construction and policy design framework in order to identify how different measures affect various social groups. Comparative case studies in two Dutch regions assessed the implementation of connected bike schemes, which showed that different governance arrangements can lead to the same measure favouring different groups. In the case of Maastricht for example, where only car driving employees of specific companies could participate in a connected bikes scheme, it was them who derived the biggest share of benefits, in the form of participation incentives and personal wins such as improved environmental performance. On the other hand, in a different region where all employees of the companies participating in the scheme could take part, benefits were more equally distributed. Common losers in both cases were the students in each area, who were seen as a disruption for employees on public transport and were therefore incentivised with online study programmes. The policy implication in this case are the unequal treatment of different social groups. In addition, it was observed that there was a lack of ‘stick’ measures and that in policy makers’ narratives losses are identified as wins. Vrsaj and Girones noted that given that the programmes across the country are currently being implemented on an experimental basis, it is likely that future policies will be accompanied by more thorough equity impact assessments.

Focusing more specifically on one type of innovation, **Kate Pangbourne of the University of Leeds** talked about Mobility-as-a-Service (MaaS) and the challenges related to the business models currently supporting it. Cities are faced with high level problems, such as public health, climate change, and ageing population, and widening inequality as well as high level pressures, such as rapid technological change, geopolitical shifts, and cyber security concerns. At the same time, responsibility for transport is shifted from higher to lower tiers of the government. MaaS is presented as a solution that can address many of the issues local governments are faced with, while offering seamless mobility. However, it is important to consider what the implications of the current MaaS business models are for public policy and what is actually the potential of MaaS to provide viable solutions to social and environmental problems. MaaS is currently mostly associated with private business models (most often solely referring to Whim), which have been criticised for potentially increasing impulse consumerism and the amount of mobility. In addition, it is still unclear whether and how MaaS can be translated into a revenue stream for local authorities. MaaS’s wider implications for social inclusion, demand forecasting, and urban planning can also be examined when comparing the business vision with which it is offered with the vision for the urban environment. A wider public debate is necessary in order to understand the implications of MaaS for rural populations, its links with infrastructure, and the governance arrangements needed for local authorities, transport, and technology providers to work together in order to capture the widest possible socioeconomic benefits.

**Session 2: Normalising Innovation**

**Robyn Dowling from the University of Sydney** shifted the focus of the conversation on to how innovation is normalised and talked about the reframing of transport planning by smart mobility and its implications for the development of future policy pathways. She used three examples of new transport technologies to explain how reframing elements of the current transport system, along with new, innovative elements is disrupting existing categories of transport policy. The first example is carsharing. According to Dowling, the tools to regulate carsharing in Sydney existed before its arrival. Carsharing works on the premise that parking spaces are available. Therefore, it was not transport policies, but land use, planning and parking regulations that were critical for its success, along with the facilitation from local authorities. The second example provided, were personal mobility devices, which include motorised or motor assisted segways or two-wheeled scooters. Personal mobility devices they do not fit any of the existing categorisations of transport, which means that new regulations had to be created to deal with conflicts with other users. For example, in Queensland, Australia, personal mobility devices were defined as a ‘type of pedestrian’ and rules of how and where they could be used were set. Therefore, existing elements of the transport system had to be reframed. The final example was AVs. Regulating AVs will require the reframing of dominant conceptions and the redefinition of relationships between cars and drivers, and cars and road space. Therefore, not only does governing smart mobility need to keep pace with rapid technological change but also to not make sure we are not locked into arrangements and trajectories with unintended consequences.

**Debbie Hopkins from the University of Oxford** talked about how legitimacy for automated goods mobility is being created by the industry and how this relates to efforts to reduce energy demand. It is expected that, by 2022, 20% of the world’s Heavy Goods Vehicles (HGVs) will be autonomous. Higher turnover of commercial vehicles means that a faster take up is expected compared to personal vehicles. For the purposes of this study, discursive constructions of legitimacy and expectations were assessed based on how articulated by industry magazines and the mass media. In addition, interviews with key stakeholders were carried out. The study showed that the terminology used in the discourse is very important; for example, trucks are not referred to as driverless but as autonomous or highly automated. A race to be the first has also been observed. Competition between manufacturers focuses on the national level, where every country can become the best. Another common discursive element is simplicity; in the media automation takes over and efficiency is easily achieved as fuel efficient robots do not fail like humans do. However, important system elements are missing from the discourse, such as the infrastructure needs to deliver smart mobility and the wider transportation systems. However, the interviews carried out as part of this study showed that stakeholders are much more concerned about system dynamics than the media. In addition, another element missing from the current discourse is the economic business case for AVs. However, as automation is an emerging sector, this may appear in the near future. Other missing elements are the role of rail freight and the potential opportunities for collaboration between autonomous passenger and freight transport. Therefore, despite the current degree of uncertainty for the future of mobility, the discourses assessed seem to create a legitimacy for autonomous vehicles.

**Session 3: Capacity to Change**

**Diane Davis from the University of Harvard** presented the results of a study on how transport policy innovations shape governmental capacity. A successful policy introduction does not necessarily lead to improved governance capacity, but it is the implementation process that determines the long term increase in governance capacity. In order to understand whether specific institutional and policy structures facilitate increase in capacity, the study used a city case study approach, two of which were presented. The first case study focused on the process of regulating Uber in San Francisco. Uber launched in San Francisco in 2011, offering a better service than the city’s conventional taxis. Despite the opposition it faced from taxi companies, Uber lobbied heavily the tech industry and public officials. At the same time, Mayor Lee saw Uber as the embodiment of sharing economy and opportunity to support technological innovation, key elements of the city’s agenda. A quick decision process saw Mayor Lee taking the regulation issue to the state level, where Uber was given a legal status. However, in this particular occasion, the city’s governmental capacity was not strengthened in the long term as the introduction of new regulation had no connection to the future aspirations for transport and land use planning in the city.

The second case study focused on the introduction of Stockholm congestion charging. Before its introduction, congestion charging was being discussed in Stockholm for about 20 years. When it was finally introduced, Mayor Billström had to change her original campaign pledge to not introduce a congestion charge, following strong political opposition over environmental issues. This move put even more pressure on the Mayor for the scheme to succeed. The first phase of implementation was a trial, during which strong relationships were developed with tech industry stakeholders involved in the scheme. The trial was followed by a referendum on whether the charge had to be maintained, where the citizens of Stockholm decided to keep the charge. Revenues from the charge are now being invested in public transport improvements and other urban infrastructure, through processes that involve multi stakeholder representation. This open process of decision making increased the governmental capacity of the city of Stockholm. These two case studies highlight the importance of proactive thinking in policy making. In addition, the two case studies show that collective action (Stockholm) can be just as effective as a strong Mayoral presence, if not more successful.

**John Stone from the University of Melbourne** talked about the capacity of Australasian transport agencies to plan for disruptive transport technologies. Neoliberal politics of the 1990s in Australia have weakened local authorities and have contributed to the accumulation of power under state governments. At the moment, the majority of infrastructure proposals are market led. For example, two thirds of the funding for the heavily contested Western Distributor in Melbourne comes from the company that has the monopoly of toll roads in Western Australia, which also secured an extension of the concession. As part of this study, interviews were carried out with public officials in order to understand their views on how smart mobility could be managed and the anticipated economic, environmental and social planning objectives. The interviews showed that there is a shared perception of future uncertainty, which is difficult to be addressed as the public sector suffers from significant knowledge gaps. At the same time, there is a general hesitation to act in the face of strong corporate interests, despite the fact that public officials recognise that the private sector depends upon the decisions of the public sector in order to succeed. Finally, there is a general lack of understanding of system architectures, allocation of responsibilities and benefits (for example, through taxation), and system planning. Australia is an example of a country where strong neoliberal shifts in politics have significantly contributed to this situation.

The final presentation by **Scott Copsey from the University of Hertfordshire**, focused on two smart mobility governance case studies from the UK. The first case study refers to a Voluntary Quality Partnership (VQP) between Hertfordshire County Council (HCC), the University of Hertfordshire and a public transport operator. Hertfordshire is a county north of London and largely part of its commuter belt. As a result of heavy deregulation in the UK, bus services in Hertfordshire are run by independent operators. In an effort to improve the quality of services, the UK government introduced Quality Partnerships, which are agreements between operators and local authorities to provide better and more coherent quality of service. The example of Hertfordshire is particularly successful because it involved the introduction of a multi-operator mobile ticket and multi-operator real-time information. This led to an increase in patronage and revenues, as well as boarding time savings. The second case study refers to ongoing work in Northamptonshire, which builds upon the success of the Hertfordshire project. Northamptonshire is located further north of London, is home to major logistics companies, and is more rural than Hertfordshire. Although around 60 million pounds are spent each year on supporting bus services, the county still suffers from disconnected rural public transport. In this case, a Social Enterprise (SE) was set up instead of a QP. The SE aims to act as a procurement agency, which will deliver better quality of service with profits being invested back in the network and will ensure open relationships between the commissioner and the operators. Although participation of operators will still be voluntary, it is expected that this intervention will strengthen the governance capacity for the rural areas of the UK.

**Discussion**

The day closed with an open discussion which largely focused on two topics; the use of data, and the role of the smart mobility transitions within the wider context of public policy. The discussion about data focused on what data it used for and whether the use is serving the public good. The public authorities’ lack of capacity to analyse data often means that they are also unable to derive knowledge from it and consequently use it to inform policies and long term strategies. In addition, ownership and sharing issues were also brought up. Examples of best practice of sharing sensitive or commercial data from France and Seoul respectively showed that there are ways for the private sector to share information with the public sector, without compromising their commercial operations or security. In terms of data standardisation, validation, quality and maintenance it was stressed that this is a cost and energy intensive process that needs to be taken into account when discussing big data and sustainability.

Finally, Diane Davis, Iain Docherty and Greg Marsden closed the discussion by highlighting the importance of providing for the public good when planning for smart mobility. Diane Davis stressed that better individual mobility does not necessarily mean better provision for the wider public. Putting people first requires smart mobility to make people’s lives more convenient while at the same time it relieves social inequalities and reduces environmental pressure. This means that non-users also need to be taken into account instead of policies only serving mobile “consumers”.

In thinking about the future of smart mobility, Greg Marsden identified that there will be many different types of transition. The transport problems vary, as do the governmental capacities and interests of the suppliers. The discussions across the day showed the importance of decisions taken early in the adoption phase in determining how pathways might unfold and the need therefore for a progressive vision for cities and states about what smart mobility is for. Key research challenges centre on understanding how different actor interests shape adoption and what the most appropriate formal and informal strategies to steer different adoption pathways might be.