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Extended abstract

The transport sector in transition: different pathways of handling transport data in four selected urban regions

Keywords: transport data, data management, public sector, policy, mobility solutions

Relevance

The transport sector, as well as the whole society, has reached such a level of digitalisation that data is becoming one of the shaping factors of the existing structures and daily activities. The emerging and consolidating value of data and data sharing has been recognised by professionals worldwide and more technologically advanced countries already invest and develop the future plans how to maximise the significance of data's collection, processing and further maintenance. In the discussion of the rapidly changing transport sector, the key features, like the real-time data, public and private collaborations, and openness and quality of the data, empower the development of innovative mobility solutions and can contribute to the decision-making. However, transport authorities in urban regions around the world relate differently to this transition and develop individual approaches to data handling, especially while facing crucial issues related to the availability of data and the data sharing conditions between public and private sectors. Moreover, these ongoing transitions and discussions still lack in-depth empirical research about varying strategies and practices that cities are developing and possible impact of these variations.

Aim and Research Question

Therefore, the main aim of this report is to make an overview of policies and actual management of data connected with the transport sector in four selected city regions: Singapore, Oslo, Helsinki and London. The research questions were formulated as how do different transport authorities in urban regions approach transport data and perceive the value of data in regards to developing a sustainable transport system? What kind of action plan is being implemented to create *public* value within daily activities of transport authorities and how reflects it in collaborations with third parties?
The objectives echo to the research questions and are defined as to provide an overview of existing practices of data usage, analyse different approach and determinate individual pathways, and finally, draw discussion out of new findings.

Methodology

The paper analyses the data from four technologically advanced urban regions, which each of them have different transport data agenda and ongoing projects within innovative mobility solutions. To answer research questions, the methodological approach of cross-case analysis was performed. The complexity of the topic required additional structuring and guidance, thus institutional dimensions ((1) policy and strategy, (2) legislative foundations, (3) organizational arrangements, (4) relevant skills and educational support, and (5) public support and awareness) were introduced to help to conduct the analysis of collected data. The main focus in the research is on the first two aspects that reflect upon the legislative basis and showcase ongoing regulative activities.

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In the first stage of the investigation, the literature review and policy overview were used to create the baseline for different pathways transport authorities are working with. The minimum requirement, in regard to the project scope, was an investigation of three documents per selected urban region that represent legislation within national and regional levels. Whilst, the required information about existing conditions and practices of data handling only partly reflects in the written documents, therefore, semi-structured interviews were performed to create a more holistic view of the research problem. The selection of the interviewees and the discussion was a crucial part of the research as they needed to represent multiple levels of governmental institutions, like national and regional, but also third parties, like private companies or academia taking part in the existing data collaborations. In regard to research extent, three interviews were performed per urban region with one representative from national, one from the regional level and one from the third party. This provided bases for cross-case analysis that helped to discuss findings and their impact on the different urban regions.

Findings

The analysis leads to the identification and overview of different practices and creation of narrative representing individual pathways (facilitator, integrator, regulator) that transport authorities in urban regions use to approach transport data and their collaborations with the third parties. The research identifies the similarities and differences between selected urban regions. New findings also allowed to point out some insights about openness, collaborations and working practices regarding data collection, processing and further maintenance. Concluding discussion touches upon existing discourses regarding data's handling and sharing among stakeholders in the specific urban region and in general, but also explores the possible impact of the different approaches to data and how it can affect the creation and maintenance of new mobility services and sustainable transport system.

In the time of technological solutions and new Intelligent Transport System trends, transport authorities are under new pressure to adopt and understanding changing responsibilities within the transport sector. The main trend according to… are… They address different fields and categories, though have one important thing in connection - all of them are driven by data.