Data sharing to facilitate and strengthen partnership working

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1. INTRODUCTION

Cities are important engines of the modern economy and are home to millions of people. However negative effects associated with movement in cities, such as congestion, poor air quality, excessive noise and road fatalities, stifle economic growth and pose social and health issues for inhabitants while also contributing significant proportions of Green House Gas emissions.

In response to these challenges, the EU has increasingly ambitious climate, environmental, digital, health and societal objectives highlighted in the European Green Deal[2], the Sustainable and Smart Mobility Strategy (SSMS)[3], the Fit for 55 package[4] and the Zero Pollution Action Plan[5].

At the policy level, the EU and National Governments acknowledge the need to take more decisive action on urban mobility to move people and goods more sustainably. The 'New EU Framework for Urban Mobility' supports Member States, regions, cities and other stakeholders in the necessary transformation. Within this, it is stated that the transition requires a clear focus on active, collective and shared mobility underpinned by low- and zero-emission solutions. Two areas that are viewed as increasingly important in contributing to this transition include:

1. the provision of digital multimodal solutions - Mobility as a Service (MaaS) apps with public transport as the backbone and including micromobility shared service options. Offering attractive low-emission alternatives to car use for personal mobility.

2. City freight transport, or logistics, serving increasing e-commerce activity and home deliveries. Offering low and zero-emission last-mile delivery options that avoid the need for personal travel for many shopping activities.

2. CHALLENGES

The role of private sector actors in transforming urban mobility

The emerging forms of service provision often involve use of App technologies for booking and are built on digital data exchange. They are typically provided as commercial operations by private sector providers with limited input or influence from the public sector. However, to ensure that emerging services meet the EU, Member State and City priorities of safe, accessible, inclusive, smart, resilient and zero-emission mobility solutions requires all stakeholders to work together to reconcile commercial and public interests in the design and operation these services.

This brief examines, through case study experience in two SUMP-PLUS cities, the data sharing requirements and supporting frameworks necessary to effectively pursue a partnership approach between public and private sector when delivering services that achieve the right balance of supporting customer services and innovation while also respecting city goals: environment, inclusion, safety, integration.

It should be noted that while this policy brief focusses on data sharing to facilitate partnerships, the SUMP-PLUS project has also developed partnerships by opening the communication with different stakeholders and public through different engagement activities (see Policy Brief 4 on Stakeholder Engagement) and through nurturing closer links between mobility and other sectors (see Policy Brief 2 on Cross-Sector Links).

3. SOLUTIONS

The adoption of partnerships between public and private sector

Collaborations between local authorities and private stakeholders, regular dialogues among all parties, networking and exchanges among cities planners are key actions mentioned by both local authorities and private stakeholders to build knowledge on digital multimodal solutions, new shared mobility provisions and sustainable urban logistics management and planning.

One effective mechanism for shaping this collaboration at the City level is through the formation of formal partnerships between public and private sector. These partnerships are formed with the private sector organisations that best meet the cities goals. Within SUMP-PLUS two of the City Labs have demonstrated public-private partnership models and have learnt many lessons in the process.

3.1. Marketplace for Mobility in Antwerp

In Antwerp the Marketplace for Mobility provides an open approach to fostering entrepreneurship and building partnerships with the private sector. This allows the City of Antwerp to award contracts to private sector organisations based on performance criteria (KPIs), removing the need for onerous traditional public sector procurement, in favour of more flexible partnerships with greatly reduced administrational 'overhead'. Calls published by the City of Antwerp through the Marketplace for Mobility are designed to be responsive to priority issues arising at the time. In accordance with

the approved regulations, the financial value of these partnership contracts is limited to a maximum of EUR 50,000 per project. Private companies with sustainable mobility solutions can also become partners in order to get the support from the city for communication and networking without financial support. Through the Marketplace for Mobility the City now partners with >130 private sector companies of different shape and size.

Fundamental to the success of the Marketplace for Mobility is the need for good quality data monitoring and sharing. The NXT Mobility database has been developed in Antwerp for this purpose. Without such an open approach to data capture and sharing the partnership model could not function. Antwerp has benefitted from specific Regional regulation requiring all new mobility providers to share their data with the city to support and facilitate the delivery of a wide range of modes in MaaS applications[6], while also contributing the necessary data for monitoring performance. Without such intervention, the success of the Marketplace for Mobility partnership approach would be weakened. This highlights the benefits from higher level support in the form of regulation to force private providers to share data. Relying on encouragement and voluntary data sharing codes is not sufficient.

3.2. EcoPoints system for freight delivery in Lucca

In Lucca, the City authorities have established their 'EcoPoints' system to foster partnership building with the best performing freight delivery companies. These private sector companies gain points for sustainable business practices; e.g. more points for use of zero-emission vehicles, consolidation of loads, developing a company environmental sustainability policy. The intention is that the city can identify and reward the most virtuous operators through, for example, extending the time window for access to the historic centre and offering discounts on the annual access permit. More points result in more preferential city centre delivery slots / access times / discounts. This form of partnership working incentivises private operators to respect and adhere to city priorities in return for a commercial benefit.

The 'EcoPoints' system is also highly dependent on data monitoring, capture and sharing to evaluate the emission class, load factors, routes, and timings of different vehicles in targeted parts of the city. This is currently made possible through the use of cameras that monitor access/egress from the cities Restricted Traffic Zone (RTZ) and sensor technologies using UHF RFID antennas that collect relevant statistical

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6 Regulations governing the operation of sharing systems Without fixed parking infrastructure | Smart ways to Antwerp (slimnaarantwerpen.be) [see Article 11, Para 14 and 18]

information on vehicle movements within the RTZ[7]. However, data privacy rules restrict the capture and sharing of this data when no infringement has been violated and only vehicles violating the access rules can be identified and statistical data relating to these vehicles monitored. To overcome this limitation the Municipality of Lucca adopted a specific Data Protection Impact Assessment document (DPIA - DATA PROTECTION IMPACT ASSESSMENT), to comply with the provisions of the General Data Protection Regulation (GDPR) 276/2016. This allowed them to gain access to the UHF RFID data, store this on a separate database to the vehicle identification and allow exchange with authorised administrations only though a DATEX II protocol to enable calculation of EcoPoints to assign to appropriate operators for specific vehicle operations. Once the EcoPoints have been extracted the original RFID data is deleted. It is clear that these data privacy rules complicate identifying the 'best' operators.

Looking to the future, and to areas of cities outside of RTZ equipped zones, mobile phone data provides an opportunity to monitor vehicle movements without the need for roadside sensors. This gives the opportunity to expand the 'EcoPoints 'system citywide. However, the data privacy rules again complicate the use of this data for this purpose.

The evidence from SUMP-PLUS has demonstrated the value of formalised partnerships to reconcile commercial and public interests in the design and operation of rapidly emerging digital multimodal solutions, new shared mobility provisions and sustainable urban logistics services. However, for these partnerships to be deliverable in an effective and fair manner requires more consistent, open and permissive sharing of data between private and public actors[8].

In relation to wider sharing of data, the commission is considering the mandatory provision of operators' real-time data (e.g. timetable and disruption information), including from public transport, through national (data) access points[9]. Based on the Antwerp experience, it is suggested that this include new and shared mobility service providers being obligated to share their data for use within MaaS

systems, but also for use by city authorities to assess performance against KPIs of private sector providers. This would facilitate partnership building similar to the Marketplace for Mobility as demonstrated in Antwerp and can be used by cities for modelling and outcome-oriented planning activities.

In addition to the need for wider sharing of data held by private sector organisations, there is also the need to grant city authorities access to data, already being captured, on private sector vehicle movements within cities. New digital identity wallets[10] may provide a workable solution for this. The new eIDAS regulation (electronic IDentification, Authentication and trust Services) sets out the 'trust framework' and tools for establishing European Digital Identity wallets for EU citizens, residents, and businesses. National governments are pushing forward their proposals related to this to become enacted in law by 2023. If similar regulation were introduced in relation to digital ID's for vehicles, allowing operators to define what data can be accessed and by whom (a key facet of the European Digital Identity regulation), then this would offer a convenient means to overcome data privacy rules and facilitate easy and secure sharing of relevant data for partnership building similar to the EcoPoints system used in Lucca.

4. CONCLUSIONS AND RECOMMENDATIONS FOR POLICY MAKERS AT NATIONAL AND EU LEVEL

Platforms for wider sharing of data

Cities should put data sharing at the centre of their data strategy with clear definition and objectives. They should also proactively look for public private partnerships to encourage data sharing.

National governments should break down silos within government agencies to lead by example with cross-agencies collaboration in data sharing. They should also actively involve the public transport sector and other mobility services in national data sharing regulation and policy discussions.

The commission should strengthen support for and promotion of open data protocols. The Commission

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7 For further information see http://www.life-aspire.eu/

8 The need for and benefits of data sharing in the public transport sector is presented more comprehensively by UITP in their policy brief "A framework for sustainable data sharing in public transport" https://www.uitp.org/publications/a-framework-for-sustainable-data-sharing-in-public-transport/

9 Review of Delegated Regulation 2017/1926 on multimodal travel information services to be adopted in 2022

10 https://www.consilium.europa.eu/en/press/press-releases/2022/12/06/european-digital-identity-eid-council-adopts-its-position-on-a-new-regulation-for-a-digital-wallet-at-eu-level/

11 REPORT_mobility_data_space_workshop_20211202_ETThimQr3s8lIITuXWg8i6aenE_82314-1.pdf (opendei.eu)

12 National Access Points (europa.eu)

should push through development of a common European mobility data space[11] to facilitate access to and sharing of mobility data in a consistent manner. Private sector providers should be encouraged to share data with city authorities through this space.

New regulation on national (data) access points[12] should include the mandatory provision of new and shared mobility service provider data allowing its use within MaaS systems but also for use by city authorities to assess performance against KPIs of private sector providers.

This will help to integrate new and shared mobility services into multimodal information services, but will also foster the expansion of more safe, accessible, integrated and sustainable micromobility solutions within cities

Opening access to data

Data on private sector providers vehicle movements, collected through sensors and mobile technologies, to be captured and made accessible to city authorities with operators' permission. Explore the possibility of a European Digital Identity wallet for vehicles to facilitate this recommendation.

This will support accelerated roll-out of zero-emission vehicles and optimisation of the use of vehicles reducing the need for empty and unnecessary runs for urban logistics.

Building capacity through knowledge sharing, technical assistance and training

The new mobility framework recommends that the Expert Group on Urban Mobility should work in particular on public transport, shared and active mobility, zero-emission fleets, urban logistics and first and last-mile delivery. This topic addresses all of these areas. Therefore, it is recommended that data sharing to facilitate and strengthen partnership working should feature as a topic explored by the Expert Group on Urban Mobility. This would offer a mechanism by which the Commission could provide knowledge sharing, technical assistance and training to build expertise on data sharing protections, regulation, possibilities, opportunities, tools, mechanisms, guidance documents etc. Specific guidance should be produced on how to utilise data to build transport partnerships that support
1. low emission and efficient last-mile logistics operations as well as
2. multimodal and shared personal mobility options.

This will build the capacity of local, regional and national authorities in the use of data sharing to facilitate and strengthen partnership working.

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