Policy Briefing 2

1. Brief overview of COVID-19 transport impacts

The current COVID-19 pandemic has been generating disastrous effects in all economic sectors striking citizens' needs and habits in many possible ways, albeit many economists already advocate that its heavy fallout can only be seen in the long run. Effects typologies usually reported include a) human-related effects for numerous human life losses; b) socially related impacts due to the annihilation of almost all direct personal interrelationships; c) economic effects due to the insurmountable difficulties encountered by a large number of companies, including those in the transport industry.

In the attempt to containing the virus-spread, over the past few months several European Countries were forced to reduce citizens' mobility with ever-increasing restrictions, such as the blocking of flights, the ban on inter-municipal travel and even total isolation in our homes during extreme circumstances. Following the gradual restart of the economic activities post-lockdown period, the various production sectors have been gradually adapting their work environments to the safety requirements imposed by this new threat. However, in transport terms, the real challenge is to adapt systems to ensure safe citizens' mobility for people returning to work without losing operational efficiency and sacrificing the achievement of sustainable development goals. The efficiency of the transport system is largely linked to its ability to use few vehicles to transport many people, increasing the load factor while reducing mileage and related impacts (pollution, greenhouse gases, energy consumption, accidents, congestion). However, it is particularly noteworthy that the idea of sharing mobility options seems impossible without violating the imperatives of physical distance required today; in many instances passengers are required to keep a distance of 1 metre from each other when using a bus or underground system, whilst before Covid-19 the busiest lines used to travel with 4-5 passengers per square metre during peak hours.

The implications that these challenges generate for the wide sustainable deployment of MaaS is addressed in the remainder of this Policy Brief.

2. Transport impacts on Italian passenger mobility

The COVID-19 outbreak was declared by the WHO a public health emergency of International concern on 30 January 2020 and since then, it has infected hundreds of thousands of people, reaching pandemic proportions. Stricter policies were declared in an increasing number of Italian provinces, between February 25th and March 9th 2020, when lockdown status for the entire Country was declared.

At the beginning of the health emergency, but before the issuing of the Italian Prime Ministerial Decree (end of February), there was a local increase in travel followed by an overall decrease. Although there were no restrictions on travel in urban areas, the number of trips immediately before 8 March was reduced by 20% in Rome, 30% in Turin and up to 40% in Milan; this situation is symptomatic of the perception of citizens, in the face of a little-known phenomenon that was felt with some concern from the beginning. Only following the Prime Ministerial Decree of 10 March, with which travel restrictions were extended to the whole of Italy, there was a uniform decrease of approximately 90% in travel.

The introduction of mobility restrictions across the Country significantly and progressively reduced the number of individuals moving between Italian provinces and generated a much lower usage of sharing mobility modes as it can be noticed in the two figures below (i.e. carsharing, bike sharing and scooter sharing).

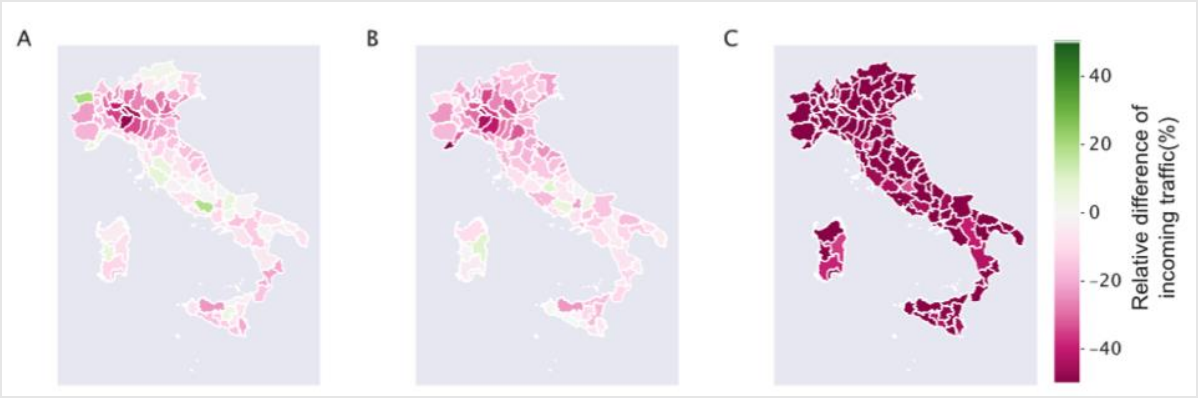
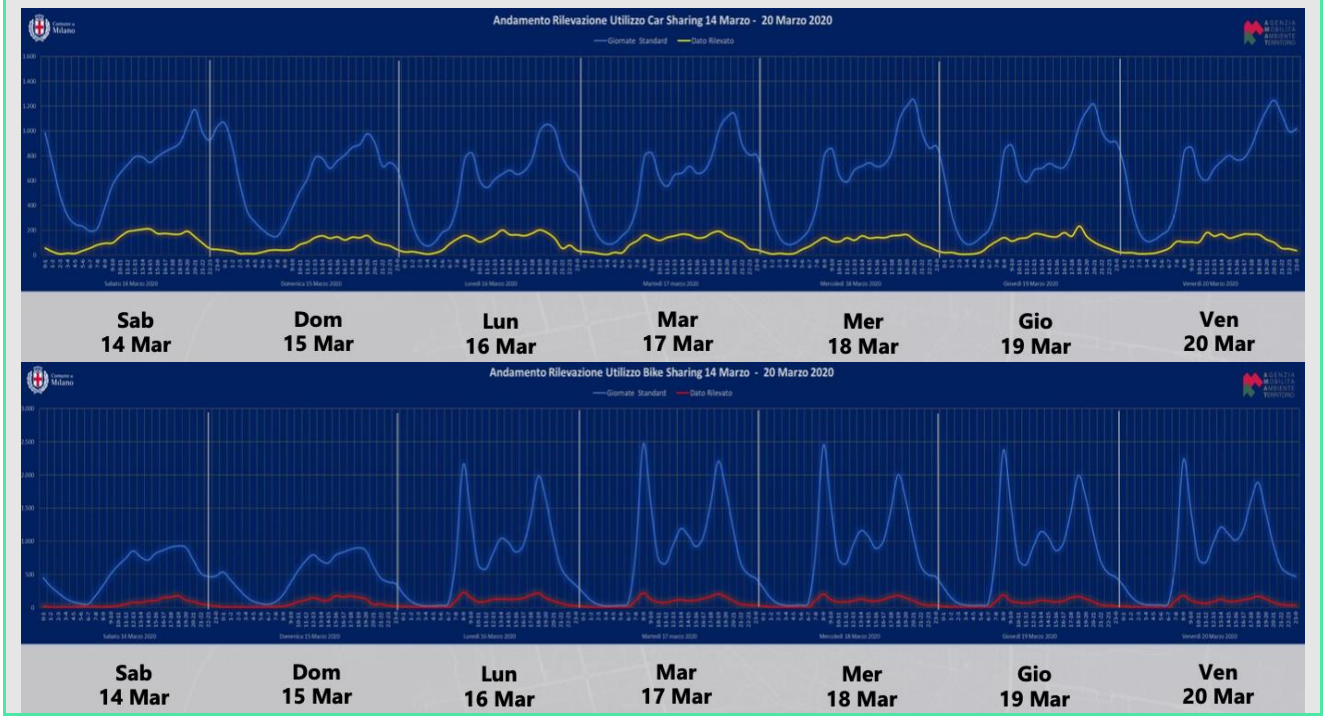


Figure 1 - Effects of restrictions on Italian mobility.

Source: COVID-19 outbreak response: a first assessment of mobility changes in Italy following national lockdown
(A) Relative difference of the number of incoming users in each province during the first week of the outbreak (February 22-28), with respect to the number of incoming users average over the 5 weeks before the outbreak. (B) Same as (A) for the week of February 29 - March 6. (C) Same as (A) for the week of March 7-13.



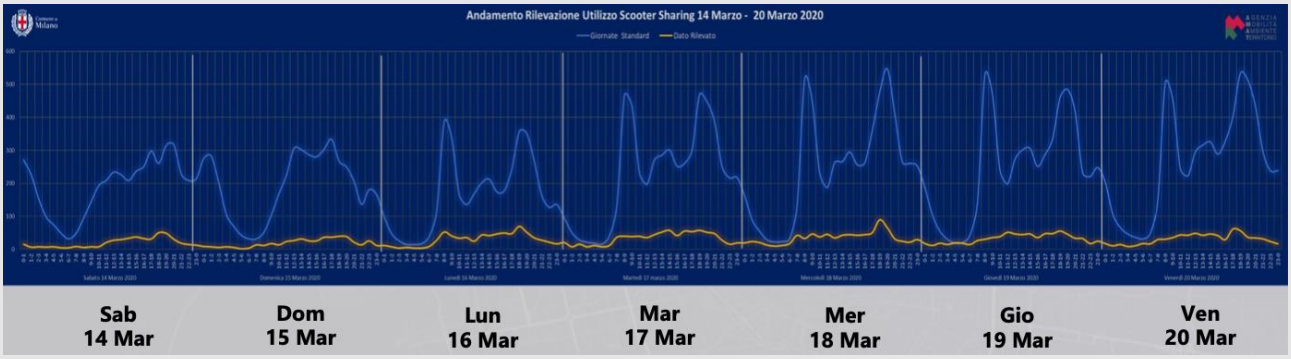


Figure 2 - COVID-19 impact on mobility in the city of Milan.

Source: AMAT statistics (March 2020), mobility agency for the city of Milan. Similar stats can be observed for other major Italian cities.
1st graph: impacts on carsharing; 2nd graph: impacts on bike sharing; and 3rd graph: impacts on scooter sharing.

In this context, the PriMaaS project consortium decided to re-explore the pivotal role of Public Transport, alongside the countereffects produced by the potentially lower use of sharing forms of mobility, on the sustainable widespread of MaaS. Therefore, high-ranking stakeholders across Europe, representing both Public Authorities and private-sector actors involved in deploying the MaaS concept within their own territories, were consulted to collect industry viewpoints and perspectives on the following questions:

[1] Will Public Transport still be considered the backbone of MaaS?
[2] What is the vision of the most advanced cities for addressing the challenges of future sustainable mobility?
[3] How the most advanced MaaS platforms and urban agencies are looking to position themselves in these challenging times?

Pioneering public and private MaaS actors and stakeholders from the PriMaaS project regions joined in two webinar sessions (June 29th & 30th 2020) to discuss challenges for regional transport systems and sustainable MaaS widespread in the post-pandemic era.

Although the experiences, challenges and opportunities arising from the emergency situation slightly vary across the European regions, the common denominator was found to be the utmost

importance in retaining the central role of public transport within MaaS in the pandemic context, as well as the promotion of shared modes, to drive towards a sustainable mobility future; it was also stressed out the added value offered by MaaS in being able to further encourage and monitor the compliance to social distancing and other safety-protective measures.

3. *MaaS in the post-pandemic era* - first webinar session (29th June)

The first webinar session held on 29th June involved a number of presentations on the aforementioned topics from stakeholders such as MaaS Alliance, UbiGO and Moovit.

Piia Karjalainen (PK), Secretary General at MaaS Alliance, summarised the impacts that MaaS has been having during COVID-19 times, including changes in travel behaviour, National incentive packages to support electric mobility and the reallocation of urban space to favour active modes (walking, cycling, micromobility). In addition, she also pointed out some interesting features where MaaS has been particularly useful to support transport safety and security measures, i.e. using mobile applications to provide information about vehicle fleet occupancy, to reserve seat for urban transport services, and inform users about compliance with social distancing measures. Whilst emphasising on the critical role of users' trust towards Public Transport and shared mobility services to widely embrace the MaaS concept, PK also stressed the importance of two specific aspects in order to improve the resilience in mobility system; namely, on the one hand open data policies, which would enable quick reaction time and agility, must be promoted and, on the other hand, Public Transport should be and should remain as the backbone of MaaS. Lastly, whilst trust in Public Transport services and its economic viability must be re-considered, funding allocation for the digitalisation of ticketing and payment systems, as well as the wider application of smart corporate mobility tools and incentives, were also remarked as key enablers.

Following on from the previous presentation conclusions, Hans Arby (HA), Founder & CEO at UbiGo, described the characteristics of the MaaS service provided by UbiGo; his viewpoint is that, to increase and retain the customer basis to satisfactory quality levels, a certain solution must be agile in meeting user needs. In an attempt to provide evidence for this, he stated that the last year UbiGo's operations led several Swedish households to adopt positive behavioural changes consisting in a higher than average share of multimodal trips being performed to satisfy their usual mobility needs. Particularly, whilst it was observed that two thirds used at least two services to carry out their trips, before Corona crisis outbreak approximately 90% of the bookings involved Public Transport with the remainder accounting for car rentals, taxi and car sharing. Lastly, he focused on the difficulty to ascertain what the post-pandemic scenario for transport will be and

that public transport will most likely be facing difficult times post-emergency times due to the limited public funding, thus resulting in an accrued travel cost for users compared to today. To overcome this challenge, HA recommended to incentivise public-private partnerships and cooperation among diverse experts on a level playing field.

Ziv Kabaretti, VP Products at Moovit, showed concrete software solutions that can help transit agencies, operators, cities and mobility providers to adapt quickly and effectively to the new normal. The first one being the Transit Data Manager, an easy to use graphical tool to manage inefficiencies in transit operations; this solution allows to: a) manage and communicate service changes to riders, keeping them informed in real-time through the Moovit app and other platforms; and b) to make all COVID-19 related changes to lines, routes, and schedules quickly and easily. The second solution presented was a DRT using shared vehicles helping to optimise current transit services during reduced service period by resizing and repurposing existing fleets. For instance, in order to ensure public safety by enforcing the social distancing rules, Moovit's booking and dispatching systems limit the number of passengers in each vehicle, also by avoiding sending too many riders to the pickup locations and alerting messages to users to maintain social distance once on board. A concrete example of this solution was implemented in Israel for one of the biggest financial Institutes, where Moovit helped their essential workers to continue commute to work every day, via a dedicated chat service and a dedicated app made available.

4. *MaaS in the post-pandemic era* - second webinar session (30th June)

The second webinar session held on 30th June served as a platform to further discuss the impacts and opportunities generated by MaaS, during and post-pandemic times, thanks to enlightening insights offered by the invited speakers, including the Stockholm Environment Institute, Rome Mobility Agency and OpenMove.

Somya Joshi (SJ), Head of Unit Governance and Institutions at Stockholm Environment Institute, talked about the role of disruptors in the transition to sustainability and focused on key aspects

to consider in order to build back better following the emergency period. In terms of disruptors and contagion events, COVID-19 is not new, there have been similar emergencies, such as financial crashes, viral outbreaks, global supply chain disruptions, or technological systems, whether they be bugs or innovations, as it can be seen in the intelligent transport sector. These disruptors can dramatically change the course of how we as a society deal with some of the most pressing problems. SJ concluded her speech with a thought-provoking question:
is the COVID crisis that we're facing now really helping us to rethink the way we are going to design our societies, our transportation and mobility systems or our approach to sustainability? Or is it a stop gap, where we are just plugging some holes with very interim solutions and actually bailing out the failing industries, mechanisms and patterns. Some very promising and cheerful examples of people fighting back during these events were given during SJ's presentation, however the key message that was conveyed was that we should think of COVID-19 as an opportunity to build back better our lives and societies and consider that only climate change is an irreversible transformation.

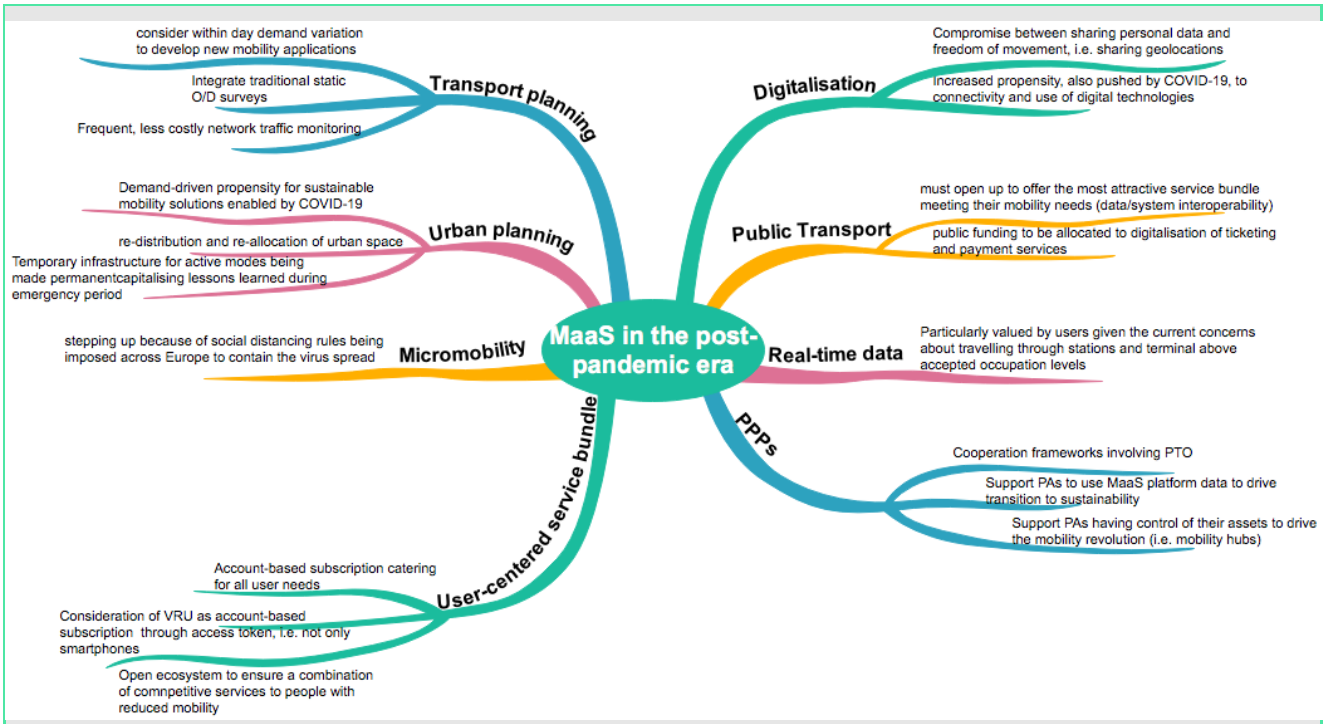
Following on from the previous presentation conclusions, Marco Cagnoli, Infomobility Manager at Rome Mobility Agency, introduced the results of a joint initiative by University of Rome "Tor Vergata", Sapienza University of Rome, Roma Tre University and Rome Mobility Agency in the analysis, monitoring and forecasting of the impacts on mobility in the city of Rome, specifically produced by the measures adopted by the National Government to contain the spread of the Covid-19 virus.
The objective of the analysis was not only to depict the current status quo of city-wide mobility, but also to provide a DSS tool to support the compliance to social distancing rules as indicated by the National decrees, especially for monitoring citizens using Public Transport. Among the capabilities provided by the DSS are the dimensioning of services and facilities for maintaining the correct social distancing values within terminals and transport vehicles.

Lastly, Lorenzo Modena, co-founder at OpenMove, taking stock of previous discussions presented OpenMove's vision for MaaS. OpenMove believes that MaaS represents the perfect balance between freedom and sustainability for a number of reasons: a) people can go from A to B; b) they can take advantage of a plurality of services with no barriers among them; c) mobility is

provided according to a user-centric approach, tailoring customer preferences and priorities; d) services are available upon request. His presentation concluded that, whilst during the COVID outbreak, we have been all realising the value of this freedom of movement at our own expenses, MaaS is the paradigm shift that Europe should be pushing for as it increases our ability to move simply by relieving us of the complexity of transport itself and allowing us to choose between various options for moving from point A to point B; indeed, it is the task of the MaaS Integrator to combine disparate transport offers together and of the MaaS Operator to offer them in a clear and persuasive way, with the same simplicity that pushes you to get on your car and leave. In a nutshell, LM synthetised his speech by stating that *MaaS absorbs the complexity of transport to provide us all with the freedom of movement*.

4. Recommendations to boost MaaS deployment during uncertain times

A wide range of success factors and recommendations to accelerate the widespread of sustainable MaaS in the PriMaaS project regions could be formulated taking stock of the engaging discussions held with participants and panellists of the 2-day webinar event; for reader's convenience these have been condensed in the mind map below.



As a closing remark, it was concluded that the high-level ingredients to develop a much-needed level 4-MaaS in the post-pandemic era are the following:

- Incorporate shared services into the MaaS offering, including carsharing, bike-sharing, scooter-sharing, also by deploying ad-hoc multi-service facilities to host them, i.e. mobility hubs;
- Retain Public Transport as the backbone of MaaS ensuring data and system interoperability, whilst promoting ticket re-selling mechanisms and allocating public funding for digital ticketing and payment systems;
- Develop a MaaS value proposition being able to offer significant commercial value also for car owners, thereby encouraging modal shift;
- Ensure that cities and municipalities having control of their assets (i.e. digital and physical infrastructure) are assisted by the private-sector actors to drive the mobility revolution towards sustainable MaaS.