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MOVING FROM CASE TO C-A-S-E: EMBRACING A PEOPLE-CENTRIC PARADIGM FOR THE FUTURE OF MOBILITY

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Short Description
The future of mobility in cities and beyond cannot depend on Connected, Autonomous, Shared, Electric cars only. We need a new kind of C-A-S-E. A people-centric one. People that travel every day to work, school, stores, entertainment venues want Convenience, Affordability, Safety and Environmental sustainability.

Main part
Connected, autonomous, shared, electric (CASE) vehicles have captured all of the headlines about the future of mobility, over the past few years. But CASE is a product-centric view of the future of mobility. A point of view that is not necessarily helping car makers sell more of their products. As car ownership is anyway reaching its peak. Or at best CASE is an asset-centric view of the future of mobility. One that fleet operators care about to maximize asset yield through optimized routing, fuel efficiency, predictive maintenance and reduced insurance costs. CASE has its benefits. Car-sharing makes more efficient use of cars and parkings, but won't address the environmental impact on its own. Electric vehicles will eliminate road transport emissions, but their market penetration is still limited, because of high prices and limited availability of charging infrastructure and they will not solve congestion or safety problems. Connected and autonomous vehicles can make traffic flow more efficient and safer, but they will take years to become available and affordable, particularly the fully autonomous ones; and then they could create induced demand, just like ride-hailing services have done.

The future of mobility in cities and beyond cannot depend on CASE only. We need a change of paradigm. We need a new kind of C-A-S-E. A people-centric one. People that travel every day to work, school, stores, entertainment venues want Convenience, Affordability, Safety and Environmental sustainability. City leaders that want to deliver intelligent transportation must meet the need of urban dwellers by promoting a people-centric view of mobility that is less focused on individual modes and more on a person's mobility options from one location to another.

European cities will have to make traffic and transportation planning decisions to shape a more citizen-centric future of mobility. And they will have to embrace digital technologies, such as IoT, big data, artificial intelligence, and mobile apps to monitor traffic flows, make more informed transport infrastructure planning decisions, charge for congestion and pollution, guide travelers to the most convenient route, make electric charging infrastructure more widespread and facilitate payments across transport modes. The whole ecosystem of vehicle manufacturers, utilities, railways, station and airport operators, ride-hailing companies and micro-mobility operators must cooperate and share data to bring together an increased yield of transport infrastructure, environmental sustainability, reduced traffic congestion, safer roads and inclusive access to mobility for all citizens.

What is new?
Change of paradigm, from a technology-centric to a people-centric view of the future of mobility.

What is transferable to other cities and regions?
The people-centric vision, ecosystem collaboration, and intelligent use of data can be re-used across jurisdictions and adapted to the local context.

What are outcomes and conclusions?
City leaders must: - Align intelligent transportation strategies with a people-centric view of the future mobility, rather than a product or asset centric view - Yield wins with solutions that are noticed by the public, such as video and AI for mobility hub safety, or smart parking, to build a stronger business case for investment - Promote open, collaborative solutions to ease cooperation with ecosystem partners that will help innovate and scale more rapidly - Apply advanced tools, such as biometrics, AI, and data protection practices to increase physical and cyber resilience of transportation infrastructure and services.

Who are the main target groups?
City transportation planners, public transit operators, vehicle OEMs, MaaS and transport network companies, railways, micromobility companies.

And what now? - what will change? - what is the relevance for the future?
COVID-19 has resulted in a global health and economic crisis. The International Monetary Fund estimates a 3% GDP drop worldwide in 2020. Europe is the hardest-hit region, with an estimated impact of 7.5% GDP decrease in 2020. Not all industries have been equally hit; transportation is at the bottom of the scale. With people confined at home, only freight transportation of essential supplies, such as food and medical supplies, has continued, even experiencing an increase due to home deliveries. Public transportation of passengers plummeted. For instance, Transport for London (TfL) estimates that Tube and rail passenger numbers plummeted 92% and by almost 80% on buses. National rail services into London were also cut because about 30% of drivers, station staff, controllers, and maintenance teams could not go to work. AsstrA, the Italian national association of local public transport operators, estimated a loss of over 50% of passengers across the country, amounting to over €100 million losses per month.

Public Transportation During COVID-19 Public transportation operators have reacted quickly to the emergency. They contributed by supporting the enforcement of social distancing and lockdown measures. The phase 2 of COVID-19 will not look like the pre-COVID-19 era. On an average weekday, there were an estimated 100 million trips over 1.1 billion kilometers in Italy, with almost 15% carried by public transport. Europe can only go back to those habits upon development of a vaccine or a reliable therapy. In the meantime, as offices, factories, schools, stores, and other activities reopen, public transit must ensure that it is safe for people to travel by a bus, subway, or train. Public transportation operators in cities and beyond are working with policymakers to implement several measures. Many of them will take advantage of information technology.

Examples of measures include:

- Limitation of the number of people in vehicles and stations.

- Extension of schedules and alignment with extended working hours for offices, factories, schools, and other institutions to minimize peaks of usage during rush hour.

- Reserved lanes and optimization of flows to increase the speed and frequency of schedules and reduce the time spent at stops and stations.

- On-demand transit services for groups of people (e.g., elderly going to a medical appointment, or kids going to after-school activities) with subsidized or premium tariffs depending on the type of service.

- Electronic booking, ticketing, and information services to minimize contact between users and public transportation personnel.

- Managing shifts for transport workers to make sure any potential spread of disease stays contained to a small unit of employees.

- Making sure people with symptoms are not allowed on public transport.

• Cleaning vehicles and stations more often and making hand sanitizers available.
To be successful in phase 2, public transport operators must:

• Act quickly. Public transportation operators must define and execute plans in which multiple measures can leverage technologies that they already have available, such as mobile ticketing, video surveillance, and digital signaling.

• Work with the ecosystem. Public transportation operators must collaborate with public security forces to make sure they can enforce restrictions in a lawful manner. They must work with policymakers and enterprises that move a lot of people (such as universities, hospitals factories, shopping malls, and office campuses) to optimize transportation schedules.

• Engage customers. Customer experience journeys will be very different with these new measures. Passengers will have to be informed about the measures. They will require support services to be able to ask new questions. Many will require support to use digital ticketing. There should be transparency in how personal data is being managed in compliance with GDPR.

Link to the project
www.youtube.com/watch?v=PxaKaOTrMks