



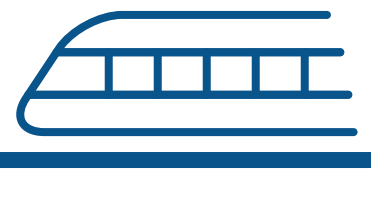
MaaS



Mobility as a Service

MaaS with transit at its heart

Understanding what MaaS stands for is very important for the future of our cities and communities. So far the transit industry has stayed on the back foot, letting commercial mobility providers dominate the MaaS discourse. Not anymore. It's time for the transit industry to give MaaS another look.



Reimagining MaaS

Cubic proposes a new definition for MaaS that takes into consideration the unique role public transit has to play in driving MaaS forward.

"Mobility as a Service is a combination of public and private transportation services within a given regional environment that provides holistic, optimal and people-centered travel options, to enable end-to-end journeys paid for by the user as a single charge, and which aims to achieve key public equity objectives."

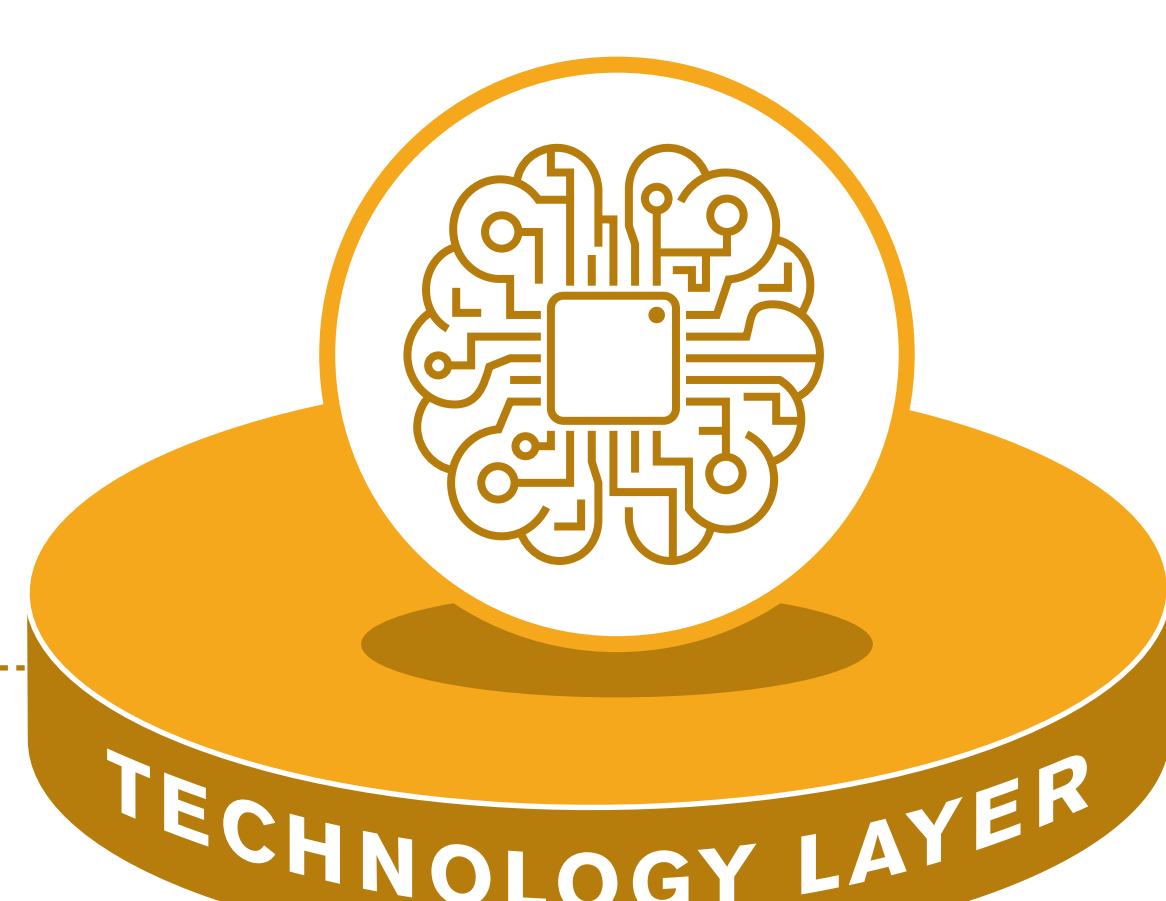
MaaS Drivers

Some of the most striking changes that set the scene for the MaaS revolution are happening to our cities.



- By 2020 **city dwellers will account for 66%** of the population
- Bumper-to-bumper traffic costs the U.S. economy **\$72 billion** each year in lost time and wasted fuel
- Outdoor pollution kills **2 million** people every year

Equally important developments in technology are changing our expectations about transportation service delivery in general.



- In 2017, humanity generated more data than in the previous **5,000 years** of existence
- Analysts estimate **34 billion IoT devices** by 2020
- By 2020, there will be nearly **10 million autonomous cars** on the roads

Meanwhile, the social layer is redefining consumption itself.



- Transportation is the second biggest sector of on-demand economy with **7.3 million monthly consumers**
- The number of people under 35 with a driver's license has **decreased by 6%**
- In near future **one shared vehicle will replace 15** owned vehicles



MaaS Benefits

Properly understood and well-executed MaaS can benefit consumers, communities and transit agencies alike, and address many of the problems transportation is facing around the world.

FOR...



CONSUMERS

- Gives the freedom to travel the way you desire
- Provides a cost-conscious alternative to private car ownership
- Offers a one-stop-shop for all mobility needs



CITIES & COMMUNITIES

- Limits the number of vehicles on roads and helps reduce congestion
- Promotes more socially and environmentally friendly means of transport
- Helps address first/last mile problem



TRANSIT AGENCIES

- Increases coverage and attractiveness of public transit services
- Offers the opportunity to argument public transit service through smart partnerships with private mobility providers
- Gives power to shape the evolution of mobility systems

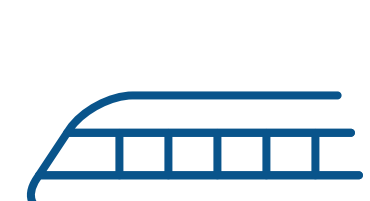


MaaS Objectives

Any future MaaS initiative should look to achieve ten key objectives.

- 1) Limit congestion, particularly during peak travel periods
- 2) Reduce car ownership, car usage and the number of vehicles on roads
- 3) Use existing infrastructure more effectively and create economies of scale
- 4) Ease pressure on the transportation network
- 5) Enable better traffic and capacity management
- 6) Improve the customer experience by presenting the transportation network as an integrated system
- 7) Cater to all travelers, young and old, able and less-able, the wealthy and the economically disadvantaged
- 8) Create a model that supports the funding of infrastructure
- 9) Lessen the overall environmental impact of transportation
- 10) Work in a driver-controlled and autonomous environment

Transit is the Backbone of MaaS



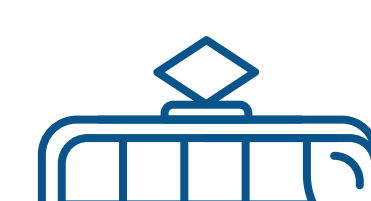
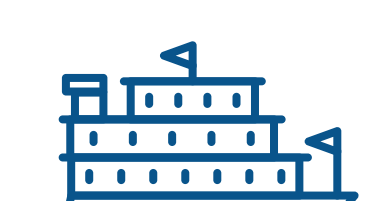
Creates the greatest density of usage - in California, the average occupancy of an Uber vehicle is 1.66 - including the driver. A typical subway train can carry 30,000 passengers per hour. To move the same number of commuters would require 3750 autonomous SUVs.

Already has the largest market share of modal mix - 65% of riders identify public bus or train as the single shared mode they use most often when traveling. 12% say the same of car sharing and 10% of ride sourcing.

Is heavily subsidized. Between 1990 and 2002 transit in the U.S. received \$7.3 billion of net federal subsidy to help operators keep prices low and provide service to the disadvantaged. Commercial mobility operators don't qualify for subsidies.

Caters to all types of travelers, young and old, able and less able, the wealthy and the economically disadvantaged. Commercial mobility providers don't need to cater to everyone. MaaS Global is only looking to collect 12% of Helsinki's population. Private mobility providers prefer riders that are digitally savvy and affluent.

Time to Act Is Now!



City authorities and transit agencies are best suited to lead the MaaS revolution. They need to recognize the balance of priorities in the new transportation mix and act as facilitators of partnerships, enablers of innovation and guardians of cities' and the public's interests.

Read more: [Mobility as a Service - Putting Transit Front and Center of the Conversation](#)

