

# Micromobility transportation – no longer a trend, it's a revolution!

By Yehiam Tam

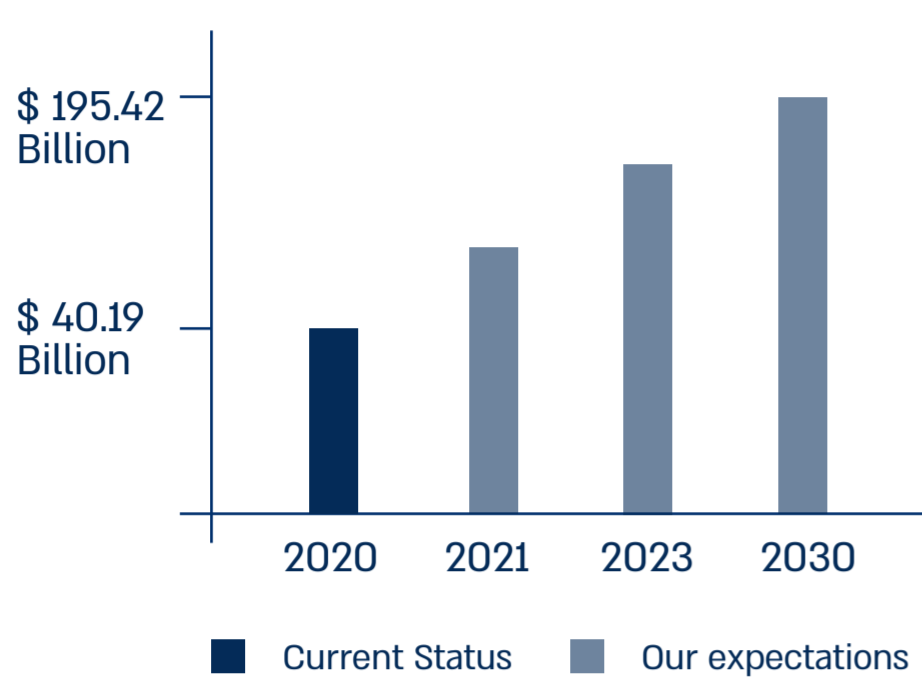


If you've recently visited any city center, you've probably noticed that micromobility vehicles such as e-scooters and e-bikes, as well as e-unicycles, are everywhere. The US Federal Highway Administration broadly defines micromobility as "any small, low-speed, human- or electric-powered transportation device, including bicycles, scooters, electric-assist bicycles, electric scooters (e-scooters), and other small, lightweight, wheeled conveyances". Whether they are riding beside you in traffic, used for deliveries or parked along the sidewalks – it's virtually impossible to ignore them.

Micromobility vehicles are no longer considered a passing trend. The top online tech publication Tech Crunch, declared 2021 as the year "micromobility as a concept, a solution and a way of life really started to settle in"<sup>2</sup> and has declared 2022 as the year that brought with it a rise in the sale of electric bikes, the adoption of smarter e-scooters<sup>3</sup>. By the end of 2023, forecasts Tech Crunch, sales of e-bikes will have increased by 46% in North America compared to 2021<sup>3</sup>. So, it is becoming increasingly evident that we are no longer looking at a passing trend, but rather at a revolution, the consequences of which will be felt for years to come.

## Private users are joining the revolution as fast as their e-bike, or e-scooter, will take them

There are quite a few benefits enjoyed by private micromobility vehicle owners: they are a less expensive, means of transportation that allow for smoother, faster movement through crowded metropolitan centers. Furthermore, they offer flexibility because they can be used in conjunction with, or instead of, public transportation, allowing for quick travel to last-mile points that public transportation does not serve.



It is no wonder, then, that the micromobility market is spiraling. In fact, the global micromobility market was valued at USD 40.19 Billion in 2020, and is expected to reach USD 195.42 Billion by 2030, registering a CAGR of 17.4% from 2021 to 2030.<sup>4</sup>

Notwithstanding, the story of micromobility vehicles extends well beyond individual ownership, and it is now expanding into a plethora of new types of ownership and applications.

## From shared mobility to public service – the new uses for micromobility vehicles

Today's shared economy and new business models, combined with the apparent benefits of micromobility vehicles, are spawning a slew of new applications for micromobility vehicles. Some of the most common ones are:



**Rental through shared mobility services** - Rather than purchasing and owning a micromobility transportation vehicle, users can simply rent one on an as-needed basis. The vehicle is picked up at any location and dropped off at the renter's convenience. The renter pays a low per-hour rental charge and does not have to worry about the costs of acquiring or maintaining a vehicle. These shared mobility services have grown in popularity to the point where a new idea has emerged: **Mobility as a Service (MaaS)**, which characterizes a service that allows customers to plan, book, and pay for numerous types of mobility services through a single digital channel.



**Last mile/deliveries** - Small businesses have begun to favor micromobility vehicles for deliveries, as anybody who has lately ordered food from a restaurant, or a local grocery store knows. The reasons are self-evident: micromobility vehicles provide very affordable and, most importantly, faster deliveries. Moreover, the recent pandemic has led to a significant increase in the purchase of merchandise and services online. In 2020, over two billion individuals purchased products or services online, and the figure is expected to climb further<sup>5</sup>. That's a lot of packages that need to be delivered! Companies have recognized the need of timely and efficient delivery, and micromobility vehicles are emerging as the ideal option to move supplies across crowded city centers.



**Municipalities/local authorities** - have many needs - garbage collection, transport of cargo, goods and people, gardening, maintenance, and security are just a few. It is critical to be able to move swiftly from one sector of the city to another, or from one municipal agency to another. Micromobility vehicles, which are mostly used for security, delivery, and maintenance, are quickly becoming an important element of any municipal fleet.

These uses and many others have necessitated effective management of micromobility fleets. Shared mobility service providers, municipalities and other organizations, as well as last mile delivery suppliers are now dealing with managing micromobility fleets, and these present unique challenges.

## Micromobility fleets – the challenges

Along with the advantages and innovative new uses and applications, managing a micromobility fleet presents a number of distinctive challenges, some of which are listed below:



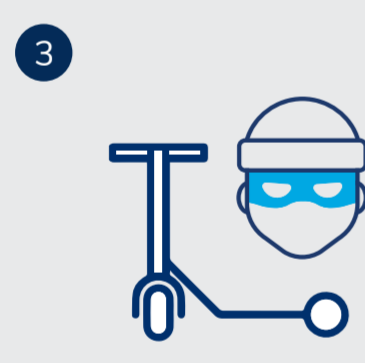
### Tracking micromobility vehicle services

A significant part of managing any micromobility fleet efficiently is 24/7 tracking of each unit's location and usage. Whether you are managing a shared mobility fleet, micromobility deliveries or municipal services, this ensures that the vehicles are where and when they are supposed to be so that they are ready for the next renter or transport.



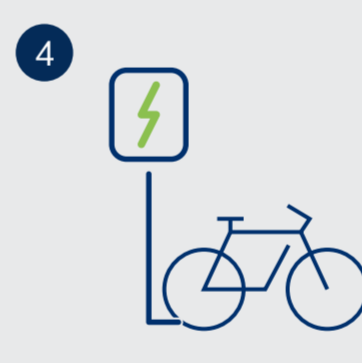
### Battery status

Micromobility vehicles are battery operated. Renters or users expect to find their vehicles fully charged and ready to go, yet monitoring battery status for all micromobility fleet vehicles 24/7 and ensuring they are all fully charged when they are needed is quite a logistic headache.



### Micromobility vehicle theft

This one is definitely a nightmare for all micromobility fleet managers or owners. When a vehicle is stolen, the losses exceed the cost of replacing or repairing it. Downtime until the stolen vehicle is located or replaced, as well as delayed deliveries, are additional costs to consider. The result could be a damage to brand reputation, inability to supply vehicles when needed or inadequate public service.



### Competition in the shared mobility market

Remember how you noticed all those micromobility vehicles around town? You've undoubtedly also observed that they're not all from the same shared mobility operator (they are visually distinguishable by different bright colors and logos). Many businesses recognized the lucrative business potential and were quickly ready to establish and begin providing micromobility transportation to meet the rising demand. Users certainly prefer to rent a vehicle from a company that provides accessible, fully charged vehicles whenever and wherever they need them, especially with so many operators to choose from and no significant pricing difference between all operators. The ability to manage a shared micromobility fleet efficiently and effectively could mean the difference between sinking or swimming for those businesses.

## Ituran's solution for micromobility fleets and for private micromobility owners – efficiency, safety, and protection from theft

Ituran's unique solution enables effective monitoring of all vehicles and usage, vehicle protection, and data collecting for fleet management and critical insights. Ituran provides a suite of tools and solutions that, when combined, enable efficient management, tracking, and safety features for optimal micromobility management of private and fleet vehicles - all from a single supplier.

The solution is based on dedicated hardware – a compact telematics tracking device that can be mounted on any micromobility vehicle and due to its small size - can be easily hidden to prevent theft. The device connects to the vehicle's battery and ignition and transmits all relevant data to the dedicated app.

Ituran's **Tick Track solution** provides tracking and recovery for micromobility vehicles. By simply installing a small tracking device on the vehicle, owners can follow the location of the vehicles in real-time and receive real-time alerts relating to the following:

1. When a vehicle enters or exits a predefined area (Geo-Fencing)
2. When a vehicle is used outside of predefined permitted hours
3. When a vehicle is turned on or off
4. When a vehicle exceeds predefined speed limits
5. When a vehicle tilts, which could indicate theft

Information is collected, analyzed, and saved (for 30 days).

**A proprietary mobile app** is used to manage all aspects of the micromobility vehicles. The app sends alerts to fleet managers or vehicle owners when battery charging is low, and provides data on battery charge status and on remaining time/distance before the next charge. Fleet managers have access to all relevant data about the location and battery status of fleet vehicles from any device, anywhere, anytime via Ituran's IWEB platform

Ituran also offers recovery of stolen units through Tick Track Plus, which operates a 24/7 call center and recovery team (in supported countries).

**Ituran provides an all-round, 360° solution to any micromobility vehicle fleet's needs. All developed, produced and serviced by our expert teams and backed by over 25 years of experience in the global fleet management market. Contact us to find out how we can help streamline your operations.**

<sup>1</sup> <https://highways.dot.gov/public-roads/spring-2021/02>

<sup>2</sup> <https://techcrunch.com/2021/12/27/micromobility-in-2022-refined-mature-and-packed-full-of-tech/>

<sup>3</sup> <https://techcrunch.com/2022/12/29/e-bike-subsidies-consolidation-and-ipo-our-2023-micromobility-predictions/>

<sup>4</sup> <https://reports.valuates.com/reports/ALLI-Manu-IE46/micromobility>

<sup>5</sup> <https://www.statista.com/topics/871/online-shopping/>

### About the author

Yehiam Tam is the Director of Cargo Tracking Systems and Micromobility Vehicle Solutions at Ituran. His responsibilities include providing customized tracking solutions based on customer and cargo requirements. He has been with Ituran since 1999.

[Read more about Ituran's fleet management system and solutions >>>](#)