



TRANSPORTATION RIDERS UNITED

# NEW MOBILITY WHITE PAPER

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TRANSPORTATION RIDERS UNITED



As technological innovations in both the public and private transportation sector continue to shape the future, it is essential to evaluate how these changes impact all populations. This paper seeks to evaluate these new modes, known as New Mobility, which TRU defines as ***"the technological integration of various forms of current and future publicly usable transportation services that can be either shared, connected, and accessible on demand."*** Through data and survey results, we argue that while the future of new mobility is exciting, that there are numerous gaps in service for certain groups of people that need to resolve through policy change.

### ***Definitions:***

**Technological Integration/Connected:** New Mobility strives to be seamless transportation across modes, with trips pieced together in Mobility as a Service (MaaS). MaaS rejects personally-owned modes of transit, and seeks to provide transportation as a single service, which integrates multiple modes into one, electronic app that can service multiple people.

**Shared Services:** Publicly accessible services that more than one person can use either at one time or for one day. Vehicles (or e.g., bikes or scooters) are not for only one individual and their individual use.

**Accessible on Demand:** Riders can access or call for services as needed (compare to a bus, which requires wait times that a user cannot control)

### ***Criteria:***

Listed below are the forms of New Mobility that will be covered in this paper, along with how they meet the definitions provided above.

**E-Scooters/E-Bikes:** Connected, Shared, on Demand

**Docked Bike Share:** Shared

**Ride-Hailing Services/Transportation Network Company (TNC):** Connected, Shared, on Demand

**Private Autonomous Vehicles (AV):** Connected

**AV Shuttles:** Connected, Shared

**Micromobility Services:** Connected, Shared, sometimes on Demand

# EXECUTIVE SUMMARY

# THE FUTURE IS UNCERTAIN

**Everyone should be able to get where they need to go**, regardless of whether they drive, affordably and sustainably. For decades, public transit has been the best solution for affordable, sustainable mobility for everyone. Now, **more options are available**.

The creation of numerous choices to get you from the front door of your home to the front door of your office has many worrying about the future of bussing. TRU believes that in metro-Detroit, **it is important to celebrate to provision of additional mobility access, as any connected system inherently supplements transit, and should not replace it.**

Options could threaten the funding foundations of transit. Some may provide even better choices for affordable sustainable access, especially when combined together. Yet, **New Mobility is far from a panacea** – in fact the availability of Uber was an excuse that anti-tax transit opponents used to argue against, and nearly kill, SMART bus service in Macomb County in 2018. As nearly all New Mobility providers are private businesses, their goals are profit and shareholder maximization, which threatens TRU's transportation goals.

ENGAGING

NEW  
MOBILITY

We as a community need to better understand what new mobility is, and what impact it has on transit and our communities. **We need to be prepared to fight to make sure our communities aren't hurt** by any of these new technologies, and instead that they are developed in a way that benefits everyone.

By addressing concerns of access, advocates can turn to policy options to prevent revoking transportation equity for communities. In this instance, **transportation equity** can be defined as the provision of public services which equalize access to opportunities, and enhance quality of life. By viewing New Mobility as a service to solve existing issues, rather than replace status quo programs that work, technology has the ability to embrace transportation equity. For populations, such as those who are legally blind or hard of sight, AVs provide an essential opportunity to allow them to have greater freedom of mobility. However, AVs that are too expensive and that are not built to universal design standards foreclose that possibility.

**Metro Detroit is on the move.** As mobility services are introduced to the region, it is essential to evaluate programs and how they serve and/or harm the region. As new projects continue to proliferate in metro-Detroit, the following list is not exhaustive, yet works to outline common patterns as well as pros and cons within New Mobility projects. As the region continues to change, **it is essential that the buzz of transformation and new technology does not leave people behind**, be it socioeconomically or through service provisions.



# WHAT IS NEWMOBILITY

"Using information technology to improve how people get around."

When considering what New Mobility is, and how services impact others, it is important to evaluate both the positives and negatives in order to prescribe solutions. When surveyed in 2019 by TRU, **respondents believed that New Mobility will have a positive impact on public transit**, and will enhance access to opportunity. Additionally, respondents were more concerned over the impact of new mobility on transportation equity than on regional growth.

It is important that transit advocacy groups support the outcomes that the general public wants, while also serving as a watch dog for policies that move away from their wishes. The following section will explain these phenomena for each of the identified New Mobility services.



**E-Scooters/E-Bikes:** Dockless technology flooded the central business district of Detroit with little warning in July 2018. In an effort to catch up, Detroit Department of Public Works issued a Memorandum of Interpretation regarding compliance of scooters with the Detroit City Code. However, for some riders, scooters provide a boon, as they do not have to memorize bus schedules, and can use the service whenever they please. To address these regulatory issues, The New Urban Mobility Alliance (NUMO) provides guidance to implement e-scooter/bike programs in the safest and most affordable way possible.

## Pros:

- First/Last mile solution

## Cons:

- Motorized services pose safety risks to cyclists, the infrastructure they ride on, and the rider of the e-scooter/bike due to speed.
- Issues with Public Right of Way

**Ride-Hailing Services/Transportation Network Company (TNC):** Ride hailing provides a commute from door-to-door that allows individuals similar benefits of commuting in a personal vehicle, to the point where TNCs have promoted programs to encourage riders to ditch their private cars. However, usage of these vehicles causes greater congestion and higher vehicle emissions. Specifically in areas like Detroit, TNCs increase vehicle miles travelled.

### Pros

- Accessible outside of the Central Business District
- Provides destination flexibility that one would be unable to get via bus
- Provides door to door service
- Could provide parking solutions

### Cons:

- High costs
- High emission portfolio
- Promotes single-occupancy commuting
- Questions of sustainability

**Autonomous Vehicles (AV):** After Columbus was the first city to receive the USDOT Smart City Challenge, advocates have been looking to the city for guidance on AV development and safety. Especially in cities like Detroit, where poor roads and weather patterns could make it difficult to properly map AV way-finding, it becomes clear that more research needs to be done to determine the future of AVs. While the creation of Private AVs is an important step forward for the disabled, and those unable to drive, both the price point, and the design may threaten that possibility. Additionally, private AVs continue the same congestion issues that the status quo tries to avoid. Alternatives, such as AV shuttles, may provide the same benefits while avoiding unnecessary costs. Pilot programs, such as May Mobility, allow feasibility to be tested, and data to be shared to allow for a more in-depth policy analysis.

### Pros:

- Benefits for the Disabled
- Potential for energy efficiency
- Compliments micro-mobility options

### Cons:

- Mapping is difficult
- Promotes single-occupancy commuting
- Price point could be too high for the general public

# WHAT IS NEWMOBILITY

"Using information technology to improve how people get around."

## EMBRACING UNCERTAINTY



If developed appropriately, this range of new mobility services have the potential to greatly expand people's options for getting around and help move people away from always driving.

- **People could save money** from not having to be bound to a personal car and the payments, insurance, gas, maintenance, and parking costs.
- People who are unable to drive could have **more freedom** to go where they want to, as could people who don't like driving.
- Cities could have **more vibrant and active streets** and public spaces, and could replace parking with more productive and attractive land uses.
- Public transit – as the most efficient way to move a large number of people – could get the **investment** and prioritization needed to make it even faster and more convenient. Additional modes developed in ways that compliment high-capacity transit routes.
- People could be **healthier** from walking more and breathing less air pollution.

However, that rosy scenario depends on how new mobility is developed and regulated. A much less rosy scenario is also possible.

- **Cities could become more congested** with autonomous vehicles circling around endlessly waiting for their owner or a new passenger.
- New mobility could widen the wealth gap, with the richest having personal vehicles drive them everywhere and everyone else stuck in traffic. Costs of **expensive technological roadway enhancements** could be forced onto the full population while benefiting only a few.
- People with **disabilities could be excluded** from new opportunities, with wheelchair-accessible vehicles only a costly afterthought.
- **Public transit could be starved for funding** as some people see them as less necessary.
- More fields and **farmlands could be paved** over and highways widened as people who can afford their own autonomous vehicles move further out from cities and drive much more.



# CHOOSING THE FUTURE WE WANT

While most new mobility innovation is coming from profit-driven private companies who are focused on serving those with means, **cities and states control the roadways – they can and must set requirements that serve the public’s best interest.**

TRU seeks to shape a future where new mobility provides the greatest benefit for the most people. We are exploring policies that can ensure that positive future:

- Detroit already requires 70% of e-scooters to start their day outside the urban core in order to **make them available** for more of the city’s residents and not congest downtown.
- MoGo Docked Bike Share accepts **cash payments**, which alleviates the barrier of needing a credit source to access New Mobility, and offers a \$5 Access Pass that gives unlimited rides to people on state assistance, making their service available to people with a wide range of income levels.
- Chicago requires ride-hailing companies to either **provide equivalent service for people with disabilities** (as required by the Americans with Disabilities Act) or pay into a fund for the city to provide it.
- Massachusetts S. 1945 of 2017 requires AVs to pay 2.5 cents per mile and be zero-emissions. A higher gas tax, congestion price, or other funding source may discourage private AV usage.
- San Diego and Kansas City charge a surcharge on e-scooters to help **fund bike lanes** and other street infrastructure that they utilize.
- TNCs should be required to provide **data** about ride routes and ride frequencies to transportation agencies, allowing them to restructure routes to address coverage gaps.
- Cities can adopt the **Shared Mobility Principles for Livable Cities** to use as a metric to evaluate the impact of new mobility.





# CONCLUSION

The Future of New Mobility provides both an exciting and a frightening future. It is the role of transportation advocates to protect constituencies, and lobby for policies that fix common service issues.

Especially in the Motor City, **it is time to ensure that Detroit provides mobility options for all**, not just those who can access private vehicles. Through our policy recommendations, and our work with local governments and transportation providers, we can take another step closer to having an integrated, regional mobility system.

However, unless the needs of all are considered in these conversations, New Mobility is only going to replicate the same challenges that we see in the status quo. That is why **it is essential to have these conversations now**, so we can prevent predictable errors in service provision, while also protecting vulnerable populations from being harmed by unregulated change.

Together, we can ensure that Detroit can be on the move for all.



Photo: TechCrunch.com

