The term micro-mobility is starting to become common in urban transport. Many believe that it is the next step to transforming the transport sector. In fact, the global micro-mobility market is expected to reach US$ 195.42 billion by 2030.

However, what is micro-mobility and why are more cities pushing for its implementation? Micro-mobility refers to lightweight and small vehicles that run at speeds below 25 km/h. Micro-mobility devices include electric scooters, electric bikes, hoverboards and electric skateboards, among others. It is anticipated that encouraging micro-mobility devices and systems will help to resolve
congestion and air pollution. However, is it really good for cities? This article looks at the pros and cons of micro-mobility.

The benefits of micro-mobility

1. Helps to solve road congestion. As with any highly populated city, road congestion is a major challenge. For example, the Australian Bureau of Infrastructure, Transport and Regional Economics predicts that congestion will cost the country between $27.7 and $37.3 billion by 2030 if it is left unaddressed. One of the benefits of micro-mobility is that it helps to reduce road congestion by encouraging people to use micro-mobility devices instead of cars. With more micro-mobility devices on the road, there will be less need for people to use cars, especially for short-distance trips. While some cities that have integrated micro-mobility into their transport systems, it is still arguably too early for their benefits on congestion to be seen.

2. Provide a first and last-mile solution. For commuters, using personal micro-mobility devices will allow them to travel more seamlessly. With an e-scooter or an e-bike, commuters can go to nearby bus and subway stations without needing to use a car. The use of micro-mobility devices address the first and last-mile dilemma, i.e. how to travel to and from public transport stops, as part of a longer journey. Micro-mobility devices are also very portable, making them a convenient choice for those who need to use public transport after having used an e-scooter or an e-bike. Overall, the use of such devices makes commuting more efficient.

3. Helps reduce air pollution. Micro-mobility devices are one of the green transport ideas that are being proposed in countless cities globally. Since they produce no pollution, they help to reduce emissions from cars and other fossil fuel-powered vehicles on the road. For example, a study by e-scooter sharing company Lime found that the city of Paris was able to save a significant amount of emissions by implementing shared e-scooter schemes within a year. If more people will use micro-mobility systems, it will help reduce air pollution, especially in highly congested cities.

4. Offers affordable personal transport to commuters. Compared to buying and owning a car, micro-mobility devices are relatively affordable. Aside from the lower upfront costs, these devices do not need fuel or major maintenance, which lowers the cost for users. Shared e-scooters and e-bikes are also affordable, as it is cheap to unlock and use the devices. For short trips, shared micro-mobility systems are cheaper to use than public transport. Overall, they provide low-income commuters with an affordable and efficient mode of transport.

The challenges of micro-mobility

1. Safety concerns. Micro-mobility devices come with major safety concerns, which is why many cities and governments are still hesitant to promote them. A study by CDC found that for every 100,000 e-scooter trips, 20 individuals incur an injury. While that is a fairly low amount, the number of e-scooter accidents has increased in recent years. Since micro-mobility devices do not offer protection, unlike the airbags in a car, some consider the use of such devices unsafe. However, if organisations and legislators can create proper standards and guidelines for the use of micro-mobility, safety concerns and incidents could be reduced.

2. Complicated communication. Implementing a micro-mobility scheme requires coordination between organisations and users, as well as good legislation. Whether it is outlining guidelines for users or ensuring high quality infrastructure for micro-mobility devices, each relevant organisation needs to coordinate with others to ensure that guidelines and regulations are implemented smoothly. As a result, communication amongst organisations can be quite complicated. This will be a challenge that cities will have to face in implementing micro-mobility systems successfully.
3. Changing regulations. As micro-mobility is a new and continuously changing industry, organisations, legislators and consumers should expect standards and regulations to change. If one factor changes, other elements will also need to adjust. For example, if the law revises the micro-mobility guidelines, manufacturers and consumers must adjust to follow regulations. In order to keep up with developments, there should be strong coordination amongst organisations and policymakers.

Is micro-mobility good for cities?

So, what does the future look like for micro-mobility? Will the benefits help cities and commuters or are the challenges too much? It is still too early to say, as very few cities have successfully supported or implemented micro-mobility schemes. However, the growing demand for micro-mobility devices makes it clear that it is not just a passing trend. Such devices are increasingly being used in cities, so time will tell whether they are able to ease road congestion and make travelling more efficient, without too many safety issues.