

Summary

Parking solutions for shared e-scooters

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Improperly parked e-scooters frustrate other road users, decrease accessibility, and can in some cases lead to injuries or dangerous situations. This project evaluates pilot projects with parking racks in Oslo and painted parking spaces in Trondheim and Oslo. Both measures have a good effect; over half of the e-scooter riders who end their trip in the test areas park in or near the parking solutions. The parking racks in Oslo have a Voi logo and we see that while a large proportion of e-scooters from Voi are parked in the racks, very few e-scooters from other companies are parked in the Voi-racks. No such company effect is found for the painted parking spaces. From GPS data of Voi scooters, we see that the effect of both racks and parking spaces decreases with distance and that the effect is strongest when they are placed in the areas where people already end their trips. The results from the surveys also show that a high frequency of parking spaces is important.

The parking racks in Oslo and the painted parking spaces in both Trondheim and Oslo seem to have a good impact on e-scooter parking. From these parking pilots, the incentivized parking zones appear to have had a small impact on parking behaviour. However, further evaluations, with different designs, are needed in order to conclude about the effect of incentivized zones.

The video data shows that more than half of all people who park in areas with racks or painted spaces, park their e-scooter either in or near these. The parking racks in Oslo are owned by an e-scooter rental company and have the company logo and design. There is a clear relationship between which company the e-scooter is rented from, and whether the user parks it in a rack. There is no such effect for parking in the company-neutral parking spaces in Trondheim. This illustrates the importance of having neutral parking measures.

GPS analyses of parked Voi-scooters show that these are parked closer to the areas with a parking rack after the rack was placed, and again after the incentivized zones were activated. For all parking racks combined, the effect is larger between the before period and the second period (rack only) than between the second and the third period (rack and incentivized zone). However, for some areas the effect is larger between the second and third period, and there are large differences between the different sites.

From the GPS analyses, we see that the parking racks have a converging effect on parking in that specific area, but that the effect decreases with increased distance. We see the same for the painted spaces in Oslo, with a similar relative increase in the share of e-scooters that are parked within 20 meters of the parking space.

Survey results also indicate that there are limitations to how far people are willing to walk in order to park in a rack. Among those who had recently completed a trip near a parking rack without parking in it, the most common reasons given were that they didn't have time to or didn't want to walk from the rack to their destination. This corresponds well with the fact that several trips with e-scooters can be characterized as "last minute" trips, where people use an e-scooter when they are short on time.

In addition to the effects of racks and painted spaces, we see a general tendency for cluster formation in e-scooter parking. This could likely be taken advantage of, for instance by instructing e-scooter companies to place e-scooters in suitable areas, preferably places where there is also room for a cluster to form without this impeding access for other road users.