

Case Study - Helsinki

Providing Advanced Analytics on e-Scooter Operations in Helsinki



Background

Helsinki is regarded as one of the most innovative centres of mobility in the world, particularly for its success in integrating shared and electric micro-mobility into the traditional transportation industry. The City of Helsinki, in collaboration with Forum Virium Helsinki, chose Vianova to conduct a comprehensive data analysis about the use of micro-mobility services in Helsinki.

The Challenge

In 2020, the City of Helsinki was experiencing a boom in these new technologies and wanted to understand the way they interacted with traditional infrastructure. It also needed to find the most effective way to appropriately manage the uncertain effects of a dockless technology. In addition to the understanding of the interactions between micro-mobility and public transport usage, it was unknown whether micro-mobility was contributing to sustainable transport habits in the city. Finally, the city needed data to inform their decision regarding the provision of mobility hubs.

The solution

From September through the end of 2020, an analysis was performed on anonymized data from the two major micro-mobility operators in Helsinki, Tier and Voi. The analysis included information about device locations and the origins and destinations of vehicle trips. The platform was used to monitor the interactions between public transport and shared mobility and to inform decisions regarding the suitable location of mobility hubs.

Results and outcomes

It was found that 25% of morning trips started from a main train station, and commuting represented 40% of micro-mobility journeys. This reinforced the City's confidence that micromobility was contributing to sustainable transport.

Resultantly, the city sought to improve associated infrastructure. The platform provided valuable insights to inform the location of mobility hubs, parking stations and cycling infrastructure.

It was found through this analysis that The City of Helsinki has a healthy and well-functioning micro-mobility network, comparable to many peer cities. However, additional approaches to regulation and data management could further improve the scheme, promoting better access and closer links between the public transport system and micro-mobility, as well as minimizing conflict between modes in the public realm.

About Vianova



Vianova enables cities to better integrate and manage connected, shared and autonomous mobility in the public space.

Our platform helps cities and mobility operators better collaborate and communicate, in order to foster more livable and breathable streets.

As an Intelligent Mobility platform, we are manipulating millions of connected vehicles data from all over the world, from our 100+ cities and micro-mobility operator partnerships in order to make the city safer, greener and more efficient.

Some key recommendations included:

- A heightened requirement for data sharing between the city and providers, including all providers
- The deployment of micro-mobility hubs in areas of critical scooter density
- Consideration of strategies to better distribute scooters to areas lacking quality transport options

Conclusion

Vianova was able to provide key insights on the rapid development of shared vehicles in Helsinki. While numbers of trips keeps growing and more than 6 operators are now operating in the city, the early analysis of the usage provided a step ahead to provide the necessary infrastructures and regulations.

In 2022, as Vianova is continuing to pursue management of the city's micro-mobility system, data can continue to provide useful insights for how to maximize the public benefit from the services provided by scooter share operators.

AWS Benefits

As a mobility intelligent platform, Vianova is ingesting, storing and computing thousands of connected vehicles data in a secure and scalable way. Every time we are on-boarding a new city or a new mobility provider, we have to make sure that our technical capabilities will support our growth.

Vianova platform is fully taking advantages of the AWS Serverless services such as Lambda functions and Aurora PGSQL. Our unique architecture is able to run 1000+ API calls in parallel to call and ingest partners data without bothering on the provisioning and management of resources. We can adapt our infrastructure to our client usage while focusing on value creation and not infrastructure management. With our CI/CD pipelines we can also securely deploy new features and capabilities multiples times per week in a secure and seamless way by using AWS API Gateway and Cloudfront.

“The Vianova pilot is a data-based solution that helps us understand how new mobility solutions are used and how they might affect mobility strategies.”

Juho Kostiainen, the City of Helsinki's project manager for Jätkäsaari Mobility Lab.

About Vianova

Vianova enables cities to better integrate and manage connected, shared and autonomous mobility in the public space. Our platform helps cities and mobility operators better collaborate and communicate, in order to foster more liveable and breathable streets.

