

A36_Bike Share Service for a Sustainable Society

Hello, everyone.

I'm Masanori Takeoka, CEO of DOCOMO BIKE SHARE INC., and I would like to explain how this service is helping to realize a sustainable society.

The ecological footprint is a measure used to represent human impact on the natural environment. For instance, in 2020, the resources consumed by human activities equaled those of 1.6 Earths.

Additionally, it is projected that if current levels of greenhouse gas emissions persist, half of the Netherlands' land area could be submerged by 2100.

Compared to other modes of transportation, the bicycles in our bike share service reduce CO2 emissions.

For example, emissions from using an automobile to travel one kilometer amounts to 132 g CO2/km. That's 66 times the 2 g CO2/km emitted by electric motor-assisted bicycles.

Reflecting advances in SDG education and ethical consumption, our bike share app visually illustrates CO2 reductions as well as calories consumed riding a bike.

We are also collaborating with other companies, such as advertising sponsoring companies that present and utilize CO2 reductions of their target bicycles.

Our service was launched in 2011 as a joint project with the City of Yokohama.

Providing a novel mobility experience, our service is utilized, on average, 19.8 million times annually.

In order to expand our service areas beyond urban centers with high daytime populations, we developed a method of area deployment called the 'ASP model,' which involves providing a system-based approach. This has led to the nationwide proliferation of our service.

Our bike share service is now available in 53 areas across the nation.

As the number of cycle ports and the number of vehicles increase due to the expansion of the area, the "relocation work" to maintain the proper number of vehicles and battery condition is becoming more complicated. Therefore, improving efficiency is a management issue.

In March 2021, we introduced an AI-based bike repositioning system, and in April 2023 we modified the algorithm to more closely align with operational parameters and revamped the user experience to make it easier for operators.

Being able to determine and predict optimal routes has made it possible to improve inefficient hauling routes as well as to reduce opportunity loss.

In November 2022, four NTT Group companies jointly demonstrated a new cycle port that uses green energy in Ueda City and Chikuma City in Nagano Prefecture.

We also developed a new system in which storage batteries charged by solar panels are used

to automatically recharge the batteries of electric motor-assisted bicycles through a cycle port. It also aims to reduce greenhouse gas emissions from battery replacement.

This was the first time in Japan that pavement-based solar panels were applied to a shared cycle system.

To achieve zero-carbon emissions across the entire shared cycle service, we conducted a demonstration in which EV trucks with renewable energy sources were used in place of gasoline-powered vehicles for optimal allocation work.

Electricity generated by solar panels is temporarily stored in storage batteries and then used to recharge the EV trucks for operations that are more eco-friendly.

"Tokyo EV Bike Share" is a new service for promoting the use of EV bikes. through a joint project with the Tokyo Metropolitan Government. In May 2023, Tokyo Governor Koike also took the stage.

Aligned with the Tokyo Metropolitan Government's strong push for decarbonization, this project was initiated to address the need for electrifying bikes.

The GOGO! electric three-wheeled bike was chosen for the project, and the service is available at five ports in the Tokyo waterfront area, with a fleet of 30 vehicles.

Since the service was launched, the total number of rides has reached 78.3 million.

The bicycle-sharing service reduced CO2 emissions by more than 7,000 tons in fiscal 2022 compared to automobile emissions, resulting in a continuous carbon neutral effect.

We expect the use of the service to increase even more this fiscal year. It won't be long before the total number of rides exceeds 100 million.

We will also develop our service into a net-zero means of transportation by using green electricity for battery charging, introducing EV trucks, and recommending optimized transportation options for reducing CO2 emissions through the expansion of MaaS.

In light of the depletion of the Earth's resources, we additionally intend to accelerate our efforts in developing a circular economy.

We are committed to contributing to global environmental protection and the realization of a sustainable society by enhancing our service to be a self-sufficient mode of transportation and increasing its usage.