

CASE STUDY

Scheme: Citi Bike, New York City
Product: Integrated Unit

Introduction

As one of the most densely populated urban areas in the Western world, New York City was a fantastic test-bed for beryl's Laserlight technology.

New York, like many busy cities, has maintained a reputation for busy, traffic-filled streets. Car congestion is a common pain-point among its citizens, and in an effort to reduce cars and relieve the pressure on other public transport systems, New York implemented a bike share system in 2013.

While New York's citizens and government were keen to encourage cycling, there were some barriers to overcome before more people could be convinced to embrace cycling as a viable form of commuting. Although cyclist deaths and serious injuries are down by $\frac{3}{4}$ since 2000 (source), there are still areas of concern. Most notably, complex junctions where cyclists and cars need to rely on clear communication and visibility. Demonstrating this, in New York 89% of fatal bike crashes occurred at or within 25 feet of intersections (source).

Citibike & beryl

In an effort to combat this issue, Citi Bike identified beryl's patented Laserlight technology as an effective solution to this problem, commissioning beryl to create a bespoke integrated lighting unit. This solution was rolled out across a pilot sample of 250 bikes in the Citi Bike fleet.

The integrated unit takes under 10 minutes to install on the bike, and has additional smart features that cities and bike share managers can enable to bring a new level of innovation to city bike share.

The beryl Future Data Platform is embedded in the lighting hardware and uses a combination of bluetooth communication, accelerometers and atmospheric sensing to monitor overall journey quality and create a world-class smart bike. Its capabilities include air pollution sensing, pothole detection, and recording accidents and near misses. The Future Data platform is currently used in New York to deliver telemetry statistics to the operators, Motivate, providing them with insights into the bike system movement patterns.



The patented Laserlight technology – proven effectiveness

The beryl patented Forward Projection Technology combines a bright, dynamo-powered white light with a green laser projection. This allows the rider to be seen in blind spots and forewarn pedestrians that they're on the road.

An independent study by the Transport Research Laboratory concluded that the beryl laser projection improves the rider's chances of being seen by other road users by up to 32%, offering superior visibility over standard bike lights.



If you would like to hear more about improving the safety of cyclists in your city and integrating the beryl technology into your city's bike share scheme, please get in touch with our Head of Policy at patrick.donnelly@beryl.cc



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