

CASE STUDY

Evaluation of innovative cycling infrastructure



Year: 2012-2014

Location: UK

Client: Transport for London

Summary

We were commissioned by Transport for London (TfL) to conduct off street trials of a range of innovative types of cycle infrastructure as part of the Mayor of London's policy to increase the uptake and safety of cycling in London. Our findings helped TfL prepare to implement these techniques on London's streets and informed its guidance on highway design.



CASE STUDY

The Challenge

Our task was to develop experimental methods for testing six different types of innovative highway infrastructure and then conduct trials on them with members of the public. Most of these facilities had not previously been used on the UK road network, so would not be familiar to participants. In some cases they require users to behave differently from how they might expect to on traditionally designed roads. As the trials were intended to gather evidence in preparation for on-road implementation, we had to make them as realistic as possible while ensuring that participants were safe.

Our Approach

Working closely with TfL's technical staff, the TRL team of 150 expert researchers developed trial versions of the different highway facilities on TRL's test track and in its driving simulator. This included a full scale 'Dutch style' roundabout with various entry treatments to test out options. A cycling simulator was also developed.



Over 130 days of trials were conducted using 6,250 members of the public - the largest programme of trials ever held at TRL. We used a mix of observational techniques, focus groups and questionnaires at our simulators and off road tracks. A specialist team worked to understand how facilities could affect people with impaired vision or mobility.

The Results

Our extensive study created a great insight into how the new designs would perform in the real world, giving TfL confidence and regulatory approval to implement many of the facilities across the capital. The findings also informed TfL's updated London Cycle Design Standards.

Following implementation in London we were commissioned to monitor the effect and behaviour of road users using the new infrastructure. This work and the knowledge we've developed continues to inform and advise other similar schemes across the UK.

DATA

- 6 separate trial facilities designed and built.
- Two facilities tested in a driving simulator.
- 6,250 members of the public took part .
- Over 130 days of trials conducted.
- 150 of TRL's research experts conducted the trials.