

Analysis of traffic accidents in the Canton of Zurich



Analyzing traffic accidents can provide an important basis in the context of traffic-safety management from which to identify appropriate measures to increase traffic safety. In keeping with its continuing efforts to improve traffic safety, the Zurich Cantonal Police Department commissioned EBP to carry out a statistical analysis of the cantonal accident data available for the period from 2009 to 2014.

Integrated safety management

The aim of integrated traffic-safety-management systems is to detect conspicuous aspects of accidents that could indicate traffic hazards and to implement prompt and efficient measures to counteract any such hazards. EBP helped the Zurich Cantonal Police Department to meet this objective for its network of cantonal roads.

Analysis of accident data

The data available for the statistical analyses related to all accidents that were reported to the Zurich Cantonal Police Department from 2009 to 2014. This large data set offered an excellent basis for the investigation. With the help of various statistical methods, we were able to delineate the temporal development of the accidents in the canton. We were also able to arrive at additional findings for the Cantonal Police Department by taking a closer look at specific groups of network elements, accident types and road users.

Client

Zurich Cantonal Police Department

Facts

Period	2015
Project Country	Switzerland
Number of analyzed traffic accidents	50,707
Length of the cantonal road network	1,328 km
Month with the most serious accidents involving pedestrians	November

Visualization

After compiling the relevant data, we communicated our findings in the form of intuitive infographics. By subjecting the data to methods of geo-referencing we were also able to place the data in their spatial context within the cantonal road network.

Information for safety management

In addition to assessing the year-on-year development in the number of reported injuries, our examination also focused on those factors that might contribute the incidence of accidents involving motorists, bicyclists and pedestrians.

The analyses allowed the Zurich Cantonal Police Department to draw conclusions about various conspicuous factors that may have played a role in the occurrence of accidents in the 5-year period under review. This can now be used as a basis for deriving measures to increase traffic safety. In addition to this, the Police Department also plans to use the findings to develop a superordinate model for the continuing assessment of network-wide traffic safety.

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