Impact of regional and area developments on traffic

When it comes to regional developments, city and traffic planners need to ascertain the impact on traffic. In order to simplify this, EBP has compiled key figures and developed a tool to estimate modal split.

Task

A region or area is newly developed or re-developed. What kind of traffic arises? With what kind of means of transport do people travel?

457 key figures on traffic volume

Key figures are calculated figures. We use these figures to determine traffic volume or the modal split by multiplying them by reference values (e.g. total floor area). We were able to compute a total of 457 key figures which were used to calculate traffic volume. We documented these in addition to other data in an electronic database. Thus, users will be able to check whether the values can be applied to and be used for their specific cases. None of the key figures are high quality unfortunately, since several of the observed sources were not complete and did not include the information we considered to be relevant.

New tool for determining the choice of means of transport (Modal split)

One goal of this research project was to improve the electronic database by providing new or better key figures. We now

Client

Swiss Federal Roads Office (FEDRO), Swiss Association of Transportation Engineers and Experts (SVI)

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provide a tool to estimate modal split. The user merely needs to select those data records which are relevant for him or her using a filter feature. He or she merely needs to enter the attributes "purpose of travel, "public transport quality class," "population density," “employee density” and "language region." The tool then displays the portions to be expected for ten means of transport, separated in each case by origin and destination traffic. These include means of transport combinations such as "Kiss and Ride," "Bike and Ride and "Park and Ride." Furthermore, the tool gives the user the number of underlying routes for source and destination traffic so that he or she can assess the robustness of the result.

Process instructions to determine traffic impact

The report includes process instructions as to how planners can determine traffic volume when faced with new or modified area usage - for each means of transport and for different questions. The integration of the electronic data collection and the modal split tool are presented in the SN 640 283 process sequence. The report also records further need for research.
EBP worked on the research project together with yVerkehrsplanung [yTraffic Planning], Weimar (Germany) and the Technical University of Vienna, Department of Traffic Planning.