

Environmentally-sensitive traffic management

Traffic managers



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Check

Environment-oriented control of road traffic requires permanent and constant reviews of various performance indicators, e.g. including emissions attributable to traffic. Accordingly, various monitoring variables, such as counters, live vehicle data, and air quality monitoring devices, should be included in the monitoring system.

Capture

Calculation of the emissions requires recording of the traffic situation in real time. Traffic density, current traffic events, and the vehicle fleet structure are the main parameters to be processed as emission packages in the cloud (per 20 meters of road). These data can be made available several times an hour for extensive traffic control scenario considerations.

Analyze

The highly-accurate emission packages and current ambient air quality data make it possible to establish the contribution made by traffic to the air quality situation. This differentiation enables the definition of certain interventions in traffic control on the basis of "air quality" as a decision parameter.

Implement

Data are recorded several times an hour on the basis of the actual traffic conditions. This continuous recording of data makes it possible to continuously optimize traffic flow, including in terms of its impact on the environment. Accordingly, the controlling of all traffic lights becomes a key component of the city's "sustainability management".

Develop

Based on the current situation and priorities for traffic control, scenarios are developed which can be used in a very targeted manner. Traffic-smoothing interventions, such as extending green traffic light phases, can generate positive effects on pollution emissions within a road section.

