

iv2splus INFONET

Personenmobilität, MdZ 4. Call (2014)

SHIQUE

Sensorik im Handy für Infrastruktur Qualität und User Experience

The SHIQUE project researches in which ways sensors in smartphones can be used through an app in a crowdsourcing/open data environment in Austria for the automatic collection, analysis and dissemination of large quantities high quality reliable active mobility traffic data including the quality of bike and road infrastructure and the user experience.

Many decisions concerning infrastructure investments and maintenance are based upon traffic data. In the field of transportation safety and the user experience is the quality of the road a key factor. It is hard and expensive to collect high quality and reliable traffic data. The collection of traffic data for active mobility (walking and biking) is even harder and this data is because of limited budgets hardly collected. Because of this data failing, there exists an underestimation of the importance and size of active mobility. There also exists the possibility that the lack of investments in active mobility infrastructure is not fair regarding its importance and size compared to other traffic modes.

At the moment there exists a demand for a system which costs-efficiently collects high quality reliable traffic data for active mobility at large quantities. From a technical viewpoint, there is a large potential to collect this data in a crowdsourcing/open data environment. However, it is unknown if the Austrian society and transport departments are prepared technically, organizationally and legally for the exploration of these possibilities.

The main question of the SHIQUE project is, if it is possible to use smartphone sensors through an app for the automatic collection, analysis and dissemination of high quality active mobility traffic data combined with the infrastructure quality and user experience in a crowdsourcing/open data environment in Austria.

The project goal is to find out through literature research, tests, interviews and Workshops which and in which ways traffic data for active mobility can be collected, analyzed and presented. Furthermore, the end-user data requirements are subject of this exploration. In addition, the prerequisites and limits regarding the data and collection processes are part of this research. Analysis of the technical, organizational and legal risks of the system and the possibilities to minimize these risks takes place. In the end should this exploration prove whether this system could be realized in Austria or not.

The aimed technological improvement is to let the traffic participant collect as much traffic data as possible including the infrastructure quality and user experience. The traffic departments and decision makers receive a tool, which enables them to make better and fairer decisions about priorities and investments for the active mobility infrastructures. In addition, this tool can be used to monitor a network over a longer period and make better estimations about the results of measures and decisions. Furthermore, a tool will be created which enhances a better cooperation between politics, administrations, companies and citizens.

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Project coordination

FH JOANNEUM Gesellschaft mbH
BBE MSc Alex van Dulmen

Tel.: +43-316-5453-8366

E-Mail: Alex.vanDulmen@fh-joanneum.at

Project partners

BikeCityGuide Apps GmbH
Daniel Kofler

Tel.: +43-0316-873-9118

E-Mail: d.kofler@bikecityguide.org