Technical, operational and economic aspects of Mobility Pricing (VSS2005/914)

Systemtechnische und betriebswirtschaftliche Aspekte des Mobility Pricing

Funding: National (Switzerland)
Duration: Oct 2005 - Dec 2008
Status: Complete with results

Background & policy context:
If charges are to be collected for mobility services, then a charging system is required. It is the task of the research to show how such a system can be built.

Objectives:
The project shall establish the basis for the investigation of the technical and operational feasibility of mobility pricing systems and shall estimate the investments and operational costs of these systems.

It shall show the necessary function and processes, list the technologies suitable for them and assess them with respect to the state of the art, usability, performance, reliability and integration with other technologies.

It shall elaborate deployment strategies, identify deployment obstacles, estimate the risks and determine approximate costs for the different variations of the systems.

Parent Programmes:
Mobility Pricing

Institute type: Public institution
Institute name: Swiss Federal Roads Office (FEDRO / ASTRA / OFROU)
Funding type: Public (national/regional/local)

Partners:
Switzerland:
Swiss Federal Roads Office
PTV SWISS

Organisation: PTV SWISS
Address: Bitziusstrasse 40 Postfach 611
City: Bern 31
Contact country: Switzerland
Telephone: (+41) 31 359 24 63
Fax Number: (+41) 31 359 24 55

Key Results:
It turns out that for the various types of charging systems there are only four basic concepts. Each concept has its application domain and in the overlapping area of these domains there are specific advantages and disadvantages for each concept. The appropriate choice among these concepts is an important prerequisite for a successful system deployment.

The technical state of the art influences the decision. For the specific charging processes of each of the
four concepts different technologies are available and every evolving new technology results in new options to support the processes. As the costs for the technologies change rapidly, the most cost effective implementations have to be reassessed each time a system is developed.

The methods developed are applied to the five mobility pricing scenarios. With this the feasibility of the scenarios is investigated and proposals are established on how to optimize the scenarios. For each implementation proposal a quantity structure is derived and the costs of the charging systems are roughly estimated.

Documents:
MP C1 (Final report)

STRIA Roadmaps: Smart mobility and services
Transport mode: Multimodal transport
Transport sectors: Passenger transport, Freight transport
Transport policies: Digitalisation, Societal/Economic issues
Geo-spatial type: Other