PROJECT

**METPEX**

A MEasurement Tool to determine the quality of the Passenger EXperience

**Funding:** European (7th RTD Framework Programme)

**Duration:** Nov 2012 - Oct 2015

**Status:** Complete with results

**Total project cost:** €3,542,972

**EU contribution:** €2,699,074

**Call for proposal:** FP7-SST-2012-RTD-1

**CORDIS RCN:** 105910

**Background & policy context:**

Public transport is central to peoples lives and well-being, especially vulnerable groups (e.g. less mobile, elderly and disabled). It is essential in providing access to employment, shops, services and leisure. The need to encourage greater public transport use is critical in achieving sustainability targets. For many, the perception and reality of public transport does not encourage use, especially when multimodal forms of transport are needed. A holistic understanding of passenger experience is critical to develop and support transport accessibility.

Whilst previous research has focussed on different aspects of passenger experience, the diversity of tools developed limits their usefulness, effectiveness and transferability. Given the maturity of research, there is a need to synthesize methods and knowledge, to produce a pan-European standardised tool for use across transport modes and with different passenger groups to focus attention away from the design of discrete elements to the whole journey experience.

**Objectives:**

Taking a holistic approach to the study of the passenger experience will provide a bridge between transport, sustainability, design, accessibility and land use; acknowledging the central importance of mobility to quality of life.

To plug this gap, METPEX will develop an inclusive passenger experience measurement tool for European transport providers, passenger groups and municipalities validated through its use across 8 sites of varying transport complexity. Its development will be informed by the consortiums understanding that data collection methods themselves have to be inclusive.

The data collected will enable the creation and dissemination of service quality and accessibility benchmark indicators. Through its deployment the tool will have far reaching impact in terms of providing more grounded intelligence to inform transport design, accessibility, land use and sustainability, and ultimately improve mobility and quality of life for EU citizens.

**Methodology:**

The development of an inclusive, validated passenger experience measurement instrument is the first step in creating high quality, user centred, integrated, accessible public transport services, which are capable of attracting and retaining public transport users whilst meeting sustainability targets.

To this end, METPEX will (1) develop an integrated approach to the measurement of the whole journey passenger experience that takes into account human (physiological, perceptual, cognitive, sensory and affective) socio-economic, cultural, geographic and environmental factors, (2) assess the costs of ‘inaccessible transport’ for different sectors of society, (3) assess the extent to which the measurement of the passenger experience can be used to drive innovation and attention to transport quality from the customer’s perspective in the transport industry, (4) evaluate the passengers experience from different regions of Europe and support the integration of regional transport networks into an European transport network and (5) facilitate the harmonization of travel behaviour research and analysis across EU
countries.

The outcomes of the project will be available for the wider scientific and stakeholders communities at the end of the project, in order to provide more immediate and ready-to-implement evaluation methods related to quality and accessibility issues in the transport system.

**Parent Programmes:**
- FP7-TRANSPORT - Transport (Including Aeronautics) - Horizontal activities for implementation of the transport programme (TPT)

**Institute type:** Public institution  
**Institute name:** The European Commission  
**Funding type:** Public (EU)

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**Technologies:**
- Information systems
- Sustainable urban mobility planning

**Development phase:** Research/Invention

**Key Results:**

**Measuring passenger experience**

Surveys that are used as a means to improve and encourage the use of mass transit fail to capture the
quality of the entire passenger experience. An EU initiative is creating tools to measure passenger experience across whole journeys.

Data on the transit experience of services such as bus and rail is continually collected to better understand the preferences, expectations and opinions of users. No such information exists, however, that takes into account a passenger's journey from the start to the final destination.

With EU funding, the project ‘A measurement tool to determine the quality of the passenger experience’ ([http://www.metpex.eu](http://www.metpex.eu) (METPEX)) is devising solutions that will provide reliable information to transport providers, policymakers and local government on the complete journey.

The focus of METPEX is on developing a standardised measurement and benchmark tool that will evaluate door-to-door public transport and non-motorised journeys like walking and cycling. This will enable all stakeholders to identify needs and gaps and to increase the efficiency and effectiveness of their services.

During the first reporting period, project partners assessed the quality of the passenger experience, and analysed current research and measurement tools and their usefulness. This resulted in more than 20 passenger experience variables for inclusion in the measurement instruments.

The team used the variables to design an online, multi-platform measurement tool. It contains two mobile phone applications, online and offline questionnaires, interviews and focus group protocols.

Researchers also identified the key socioeconomic and technology factors affecting accessibility and mobility in different European regions.

METPEX intends to enhance the quality of the transport experience by delivering integrated, sustainable transport solutions. The project envisions a high-quality, user-centred and inclusive public transport service that attracts and keeps users.

**Transport mode:** Multimodal transport

**Transport sectors:** Passenger transport

**Geo-spatial type:** Other