European Commission

ICT FOR TRANSPORT

STREETLIFE

Steering towards Green and Perceptive Mobility of the Future

STREETLIFE will develop a multimodal urban mobility information system that provides mobile information services to end users in order to promote sustainable transport alternatives, thus reducing traffic and related emissions in cities. It also offers to traffic management centers and city administrations sophisticated ICT solutions for monitoring and control.

At a Glance

Project acronym:
STREETLIFE

Project type:
Specific Targeted Research Project (STREP)

Programme:
7th EU Framework Programme

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Project partners:
Aalto University (FI), Berlin Partner für Wirtschaft und Technologie (DE), CAIRE URBANISTICA (IT), CGI (FI), City of Tampere (FI), Comune di Rovereto (IT) Deutsches Forschungszentrum für Künstliche Intelligenz (DE), Deutsches Zentrum für Luft- und Raumfahrt (DE), Fondazione Bruno Kessler (IT), Fraunhofer FOKUS (DE), Siemens (DE)

Start date / End date:
1 October 2013 / 30 September 2016

Total cost / EU funding:
€ 6,2M / € 4,3M

Project website:
www.streetlife-project.eu

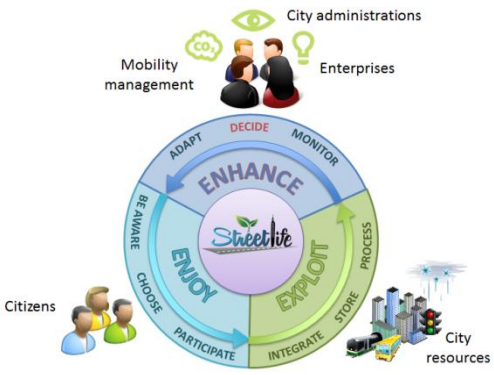
Objectives

The activities of STREETLIFE are devoted to the principal goal of reducing carbon emissions through sustainable urban mobility solutions based on ICT. More specifically, the modular STREETLIFE system will

- *exploit information* derived from city transport infrastructure and integrate them with crowd-sourcing information and floating data as well as with sources from other domains (e.g. weather, air pollution).

- let citizens *enjoy environmentally friendly mobility* by providing dedicated multimodal, personalized and real-time mobility services.

- *enhance systems* of traffic management centres and city administrations using advanced solutions to control mobility resources and enact related policies.



Description of Work

APPROACH

The first activities of STREETLIFE aim at gathering requirements and defining the reference architecture and conceptual models. These parts form the basis for the development of the system components first version.

The effectiveness of this first solution will be proven through an in-depth evaluation on three city pilots (Berlin, Tampere, and Rovereto), resulting in an impact assessment on traffic situation, end-user behaviour and reduction of carbon emissions. Feedback of local experts will also be collected in technical workshops at the pilot sites to adapt the system modules to the real needs.

The outcome will be used to implement and evaluate a second, more refined version of the STREETLIFE prototypes at the sites.

At the end of the project, an international symposium and local dissemination workshops will be organized to present the project's achievements.

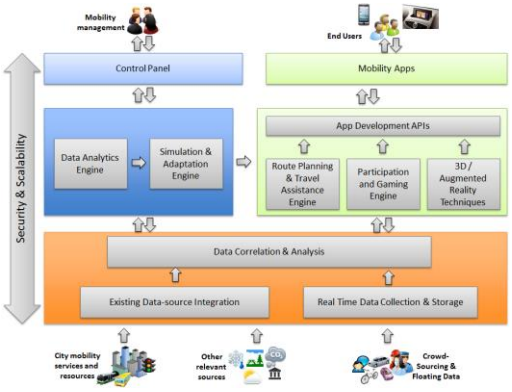
BLUEPRINT ARCHITECTURE

STREETLIFE is characterized by its blueprint architecture, which is to be derived and to be applied in each of the pilots. It will be composed of different major components.

The *infrastructure component* will fulfil the tasks of integrating different static and real-time data sources and of establishing a dedicated interface that can be accessed by the mobility solutions of the project.

The *management component* will be designed to provide public administrations with mechanisms and tools to understand and influence the current traffic and associated carbon emission situation. A data analysis engine will utilize real-time and historic data to create a global view of the subject. The simulation and adaptation engine will provide a framework to effectively influence the urban traffic situation and to thus reduce actual carbon emissions.

Urban mobility planners will access the system through a control panel that will provide an integrated monitoring and control interface.



The *end-user component* will provide citizens with personalized applications for mobility planning, pre-experiencing selected routes and on-trip travel support. The route planning and travel assistance engine will offer a routing that considers various modes of transport and supports the user throughout the whole trip. The participation and gaming engine will be essential in engaging people towards carbon-reducing mobility. 3D virtual environments and Augmented Reality techniques will be used for visualization.

Expected results

STREETLIFE intends to motivate citizens to adopt environmentally friendly mobility behaviour. Mobile apps offer personalized travel, provide multimodal routing and advanced graphical interfaces.

City administrations benefit from the mobility and emission control panel which is capable to analyse, simulate and manage transport demand. Mobility cloud solutions for the integration and processing of different information sources provide a generic approach for the management of real-time data.

The system architecture describes the functional components as well as the security and scalability requirements of such a system and can become a blueprint for other cities and regions in Europe.

For further information:

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