

SUNSET

Sustainable Social Network Services for Transport



SUNSET develops and evaluates a set of services that use *social networks* and *incentives* to encourage people to travel more sustainably in urban environments. The project's objective is to increase personal mobility and at the same time reduce congestion, increase safety, and protect the environment.

At a Glance

Project acronym: SUNSET

Project type: Specific Targeted Research Project (STREP)

Programme: 7th EU Framework Programme

Project coordinator:

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Project partners:

Stichting Novay (NL), DOCOMO Communications Laboratories Europe GmbH (DE), Queen Mary and Westfield College, University of London (UK), University of Leeds (UK), Eco2Win AB (SE), LocatieNet (NL), Universiteit Twente (NL), Gemeente Enschede (NL), Viktoria Institute (SE)

Start date: Feb 1, 2011

End date: Feb 1, 2014

Total cost: € 4.102.622

EU funding: € 2.950.000

Website: www.sunset-project.eu

Objectives

The objective of SUNSET is to *facilitate sustainable urban mobility in the EU* through services that build on the latest ICT and “Web 2.0” technologies. SUNSET focuses on services that:

- *Reduce congestion:* services that help reducing traffic jams and average travelling times. Our objective is to reduce rush hour traffic by 5% (measured in car kilometres in a specific area);
- *Increase safety:* services that allow travellers to optimise their route, for instance by motivating drivers to avoid roads with many cyclists or by allowing people travelling by train to avoid waiting times on dark and silent railway stations.
- *Protect the environment:* services that reduce the impact of mobility on the environment, for instance in terms of reduced CO₂ emissions, improved air quality management, and reduced noise pollution.
- *Increase personal wellbeing:* services that allow citizens to set and monitor personal objectives: like increased individual safety, reduced travel times, reduced costs, improved comfort, and increased health.

SUNSET services focus on multi-modal mobility in urban areas with a fine grained maze of roads (as opposed to long-distance highways) and on travellers with good static knowledge of the environment, but with limited overview over the dynamic situation.

Approach

SUNSET has four types of stakeholders: the local government, individuals, communities (e.g. a company's employees) and 3rd party service providers. SUNSET combines personalized services, incentives, and social networks to help people to adopt more sustainable ways of travel:

- **Personalized:** SUNSET services coach travellers and provide them with rewards and incentives for good (sustainable) travel behaviour. This allows cities to manage their city-wide sustainability goals ("system goals") by influencing the travel behaviour of their citizens at the personal level, creating a balance between system-level and personal mobility goals.
- **Social:** SUNSET services integrate with social networks such as Twitter, allowing travellers to easily access the SUNSET services. Another advantage is that travellers can use the SUNSET services to exchange information amongst each other ("wisdom of the crowds"), such as travel patterns and information from sensors on mobile phones and in the infrastructure. The combination of SUNSET services and social networks facilitates the build up of travel-related communities and allows cities to easily reach large groups of citizens.

The SUNSET services will be evaluated in two *living labs*, one in Enschede (NL) and one in Göteborg (SE) or Leeds (UK). The goal of the living labs is to assess how the SUNSET services contribute to the project objectives.

Consortium

The consortium covers the complete value chain to attain the project objectives and to exploit its results: an internet mobility application provider (LOCNET), a municipality (ENSCHEDÉ), an SME focussing on environmental performance aspects (ECO2WIN), and a large mobile operator (DOCOMO). It also contains well-known European research institutes on ICT applications (NOVAY), on mobility systems (QMUL, UNIVLEEDS), traffic

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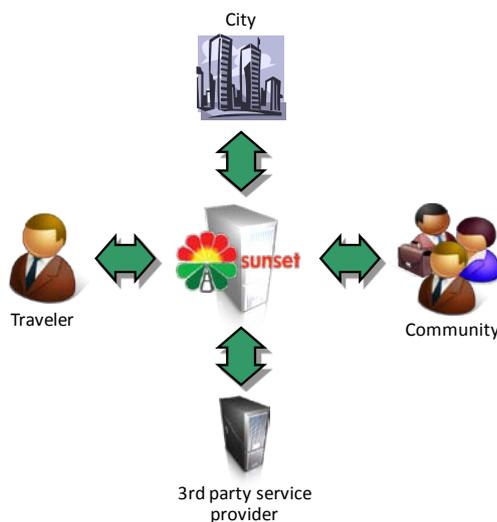


Figure 1. SUNSET ecosystem.

safety (UTWENTE), and environmental studies (VIKTORIA).

Description of Work

SUNSET will run for 36 months. The planning involves three main activities:

- Development of the SUNSET living lab scenarios and the architecture of the SUNSET system (M1-M11)
- Design, implementation, integration, and testing of the SUNSET system (M3-M31);
- Setting up and operating the living labs in Enschede (M18-M24) and in Göteborg or Leeds (M24-M30)
- Scientific evaluations of the living lab results (M30-M36).

Expected Results

The expected outputs of SUNSET are:

- Social services that motivate people to travel more sustainably in urban areas;
- Intelligent distribution of incentives to balance system and personal goals;
- Algorithms for calculating personal mobility patterns using info from mobile and infrastructure sensors;
- Evaluation methodologies and an impact analysis based on living lab evaluations.
- Scientific papers, contributions to standardisation bodies, and new transport-related services.

