

PROJECT

SUPERHUB

SUstainable and PERsuasive Human Users moBility in future cities

Funding: European (7th RTD Framework Programme)

Duration: Oct 2011 - Nov 2014

Status: Complete

Total project cost: €9,849,256

EU contribution: €7,000,000



Call for proposal: FP7-ICT-2011-7

[CORDIS RCN : 101216](#)

Background & policy context:

The three major elements of urban mobility can be broken down in:

1. Mobility infrastructure and services are the backbone of smart cities
2. Ensuring an effective and sustainable mobility of citizens and goods
3. increased size of cities and increased mobility needs may lead to traffic congestion and other negatives externalities in environmental sustainability, health and economic growth

ICT developments can contribute positively to the aforementioned elements by:

1. Infrastructuring the mobility system with sensors and actuators
2. The ability to monitor and control in real-time (optimising the efficiency of mobility process)
3. Advanced data analytics solutions
4. 'Big data' approach
5. Adding an effective 'nervous system' to smart cities

The SUPERHUB project aims at realising a new services mobility framework supporting an integrated and eco-efficient use of multi-modal mobility systems in an urban setting

Objectives:

The objectives of the SuperHub project are mainly to improve energy efficiency, reducing CO2 emissions and foster economic growth in urban environments by providing a user-centric framework for developing, integrating and negotiating in real-time different providers and consumers of mobility resources.

More specifically, the most important goals are:

1. reducing the overall environmental footprint of urban mobility
2. minimising the aggregated time spent in moving across urban areas
3. enabling the arising and reinforcement of a mobility services ecosystem, able to facilitate the interaction of public administrations, goods transport companies, interested groups, citizens and other stakeholders.

Methodology:

SUPERHUB provides a user-centric, integrated approach to multi-modal smart urban mobility systems, through an open platform able to consider in real time various mobility offers and provide a set of mobility services able to address user needs, promote user participation and to foster environmental friendly and energy efficient behavioural changes. Moreover, the take-up of virtuous behaviours, characterized by a reduced environmental footprint, is also facilitated by the SUPERHUB open platform matchmaking and negotiation capabilities between (public-private) providers and consumers of mobility offers and by the use of persuasive technologies to achieve wide adoption of results.

To achieve these objectives SUPERHUB will develop a persuasive engine based on captology principles to facilitate the voluntary adoption of environmentally-friendly multi-mobility habits, novel methods and tools for real-time reasoning on large data streams coming from heterogeneous sources, new algorithms and protocols for inferring traffic conditions from mobile users by coupling data from mobile operator networks with information coming from GPS based mobile phones and for dynamic matchmaking or resources that will generate journey plans best fulfilling user mobility needs and preferences while minimizing negative environmental impact. Specific services and user studies will be realized to demonstrate the SUPERHUB concepts and technologies through field trials in Barcelona, Helsinki and Milan, involving large end-users communities. Results of SUPERHUB field trials shall influence local policy makers and municipalities in the definition of new energy-aware mobility strategies and planning.

Parent Programmes:

[FP7-ICT - Information and Communication Technologies](#)

Institute type: Public institution

Institute name: European Commission

Funding type: Public (EU)

Lead Organisation:

Gfi

Address:

Technologielaan 11/102
3001 Heverlee
Belgium

EU Contribution: €619,072

Partner Organisations:

Create-Net (Center For Research And Telecommunication Experimentation For Networked Communities)

Address:

VIA ALLA CASCATA 56 D
38100 TRENTO
Italy

Organisation Website:

<http://www.create-net.org>

EU Contribution: €553,755

The University Court Of The University Of Aberdeen

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EU Contribution: €583,202

Exrade

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EU Contribution: €415,400

Helsingin Yliopisto**Address:**

FABIANINKATU 33
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Organisation Website:

<http://www.helsinki.fi>

EU Contribution: €509,341

Gfi Portugal - Tecnologias De Informacao Sa**Address:**

AVENIDA D JOAO II LOTE 1 06 2 2 PISO 4
1990 095 LISBOA PARQUE DAS NACOES
Portugal

EU Contribution: €155,858

Autoritat Del Transport Metropolita**Address:**

Muntaner 315-321
8021 Barcelona
Spain

Organisation Website:

<http://www.atm-transmet.org>

EU Contribution: €101,750

Ajuntament De Barcelona**Address:**

Plaça De Sant Jaume Sn
8002 Barcelona
Spain

EU Contribution: €80,700

Accanto Systems Oy**Address:**

Annankatu 25 Tsto 53
100 Helsinki
Finland

EU Contribution: €155,040

Fundacio Privada Barcelona Digital Centre Tecnologic**Address:**

CARRER ROC BORONAT 117, 5 PLANTA
08018 Barcelona
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Organisation Website:

<http://www.bdigital.org>

EU Contribution: €472,781

Universitat Politecnica De Catalunya**Address:**

Calle Jordi Girona 31
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Organisation Website:

<http://www.upc.edu>

EU Contribution: €506,469

Etra Investigacion Y Desarrollo Sa**Address:**

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Organisation Website:

<http://www.grupoetra.com>

EU Contribution: €398,822

Auto Guidovie Italiane Spa**Address:**

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EU Contribution: €218,916

Helsingin Seudun Liikenne-Kuntayhtyma**Address:**

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EU Contribution: €119,420

Ceske Vysoke Uceni Technicke V Praze**Address:**

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160 00 PRAHA
Czech Republic

Organisation Website:

<http://www.cvut.cz>

EU Contribution: €429,800

Centrum Dopravniho Vyzkumu V.v.i.**Address:**

Lisenska 33a
636 00 BRNO
Czech Republic

Organisation Website:

<http://www.cdv.cz>

EU Contribution: €294,960

Vodafone Omnitel B.v.

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AMSTERDAM
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EU Contribution: €320,160

Diesis Coop

Address:

Square De Meeus 18
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EU Contribution: €203,676

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EU Contribution: €140,640

Fondazione Legambiente Innovazione

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Via Delle Orfane 24
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EU Contribution: €423,196

Imaginary Srl

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EU Contribution: €274,994

Game2Growth Ltd

Address:

Gallows Hill Innovation Centre
Warwick
CV34 9AE
United Kingdom

EU Contribution: €22,048

Technologies:

Information systems
Sustainable urban mobility planning

Development phase: Research/Invention

Documents:

 [Project presentation \(Final report\)](#)

STRIA Roadmaps: Smart mobility and services

Transport mode: Multimodal transport

Transport sectors: Passenger transport

Transport policies: Digitalisation, Environmental/Emissions aspects

Geo-spatial type: Urban