Project description

Low carbon multi-modal mobility and freight transport

Objective

The project aims to realize a method, system and tools for adaptively influencing traffic in real-time to reduce CO2- and black carbon (BC) emissions caused by road transport in urban and inter-urban areas. BC is suspected to be the second main contributor-next to CO2-to global warming. The inter-relationships between traffic flow and CO2- and BC emissions will be considered. In particular a model linking traffic flows to emission levels will be established on the basis of existing and new simulation methods and tools. The main goal of the project is the development, integration and evaluation of a real-time decision support system for adaptive traffic control and management. Real-time traffic information will be delivered by existing sensors and by a novel technology vision sensor, air quality sensors and additional data sources (e.g. weather conditions) enrich the data base to provide all relevant information in a unified fashion. Based on a data base of predefined traffic scenarios traffic control measures will be dynamically imposed. The impact of the measures on the overall CO2 - and BC emissions will be accounted for in the decision
support system and will be assessed in the evaluation. Furthermore, the effects of reduced traffic on urban
air pollutants (relevant for human health), with a special focus on BC as a pollutant, will also be considered,
thus allowing to evaluate the value added of climate protection measures for the urban population. The
system will be implemented and tested in two EU cities (Graz, AT and Glasgow, UK). This project brings
together two important communities. The traffic community is represented by AIT, IBM, VITO,
Österreichisches Forschungs- und Prüfzentrum Arsenal (ÖFPZ) and EBE-Solutions Austria with long
standing experience in traffic monitoring, simulation, analysis and management. The air quality community
is represented by Air Monitors UK, ETS, London Imperial College and again by VITO.

Field of Science

/social sciences/social and economic geography/transport

Programme(s)

FP7-ICT - Specific Programme "Cooperation": Information and communication technologies

Topic(s)

ICT-2011.6.6 - Low carbon multi-modal mobility and freight transport

Call for proposal

FP7-ICT-2011-7

See other projects for this call

Funding Scheme

CP - Collaborative project (generic)

Coordinator

AIT AUSTRIAN INSTITUTE OF TECHNOLOGY GMBH

Address

Gießingasse 4
1210 Wien

Austria

Website

Contact the organisation

Activity type

Research Organisations

EU Contribution

€ 951 006

Participants (8)
Österreichisches Forschungs- und Prüfzentrum Arsenal GmbH

Address: Gießergasse 2
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Activity type: Research Organisations

Website

Contact the organisation

Administrative Contact
Michael Parik (Mr.)

EBE SOLUTIONS GMBH

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Activity type: Private for-profit entities (excluding Higher or Secondary Education Establishments)

Contact the organisation

Administrative Contact
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IBM OSTERREICH INTERNATIONALE BUROMASCHINEN GESELLSCHAFT MBH

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Activity type: Private for-profit entities (excluding Higher or Secondary Education Establishments)

Contact the organisation

Administrative Contact
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**EUROPEAN TECH SERV NV**

Address: Essenlaan 7
9130 Kieldrecht

Activity type: Private for-profit entities (excluding Higher or Secondary Education Establishments)

EU Contribution: € 232,696

Contact the organisation
Administrative Contact: Guy Kouwijzer (Mr.)

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**VLAAMSE INSTELLING VOOR TECHNOLOGISCH ONDERZOEK N.V.**

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2400 Mol

Activity type: Research Organisations

EU Contribution: € 464,108

Website
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**AIR MONITORS LTD**

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Park Unit 2
Gl20 6ff Twyning

Activity type: Private for-profit entities (excluding Higher or Secondary Education Establishments)

EU Contribution: € 269,691

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