Sustainable Energy mAnageMent for Underground Stations

Fact Sheet

Project Information

SEAM4US
Grant agreement ID: 285408
Status
Closed project
Start date
3 October 2011
End date
30 September 2014
Funded under
FP7-ICT
Overall budget
€ 4 153 597
EU contribution
€ 2 877 292
Coordinated by
COFELY ITALIA SPA
Italy

Project description

ICT for energy-efficient buildings and spaces of public use

Underground transportation systems are big energy consumers (e.g. 63.1 millions of kWh / year), and have significant impacts on energy consumption at a regional scale. One third of the networks’ energy is required for operating the subsystems of metro stations and surroundings, such as ventilation, vertical transportation and lightning. Although a relatively small percentage of energy can be saved with an optimal management of these subsystems, a large energy saving in absolute terms can be obtained. The objective of SEAM4US is to develop advanced technologies for optimal and scalable control of metro stations that will produce a 5% saving in nontraction electricity consumption in one year, which is equivalent to the electricity consumed in more than 700 households. The project’s main outcomes will be the creation of systems for optimized integrated energy management, and the development of a decision support system to drive mid-term investments. SEAM4US
will integrate additional energy metering and sensor-actuator networks with the existing systems (e.g. surveillance, passenger information and train scheduling), by means of middleware as abstraction layer, to acquire grounded user, environmental and scheduling data. The data set will update and enable a set of adaptive energy consumption and environmental models to proactively and optimally control the metro stations. The consortium consists of a large metro network operator, TMB; a major player in energy-efficient system management sector, COFELY; building and environmental physics and construction experts UNIVPM and UPC, respectively; R&D experts in middleware, FhG FIT and VTT; R&D experts in user and agent-based scheduling modeling, ALMENDE and UNIK; system integrator, CNET.

Field of science
/ engineering and technology/environmental engineering/energy and fuels/renewable energy

Programme(s)

Topic(s)

Call for proposal

FP7-2011-NMP-ENV-ENERGY-ICT-EeB

Funding Scheme

CP - Collaborative project (generic)

Coordinator

COFELY ITALIA SPA

Address
Via Della Travicella 61
00179 Rome
Italy

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

EU contribution
€ 437 339

Contact the organisation
Giovanni Pescatori (Dr.)

Participants (8)
UNIVERSITAET KASSEL

Germany

EU contribution

€ 285 900

Address

Monchebergstrasse 19
34125 Kassel

Activity type

Higher or Secondary Education Establishments

Website

Administrative Contact

Klaus David (Prof.)

FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V.

Germany

EU contribution

€ 335 691

Address

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80686 Munchen

Activity type

Research Organisations

Website

Administrative Contact

Diana Polewka (Ms.)

FERROCARRIL METROPOLITA DE BARCELONA SA

Spain

EU contribution

€ 244 932

Address

Carrer 60 Zona Franca 21-23
08040 Barcelona

Activity type

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

Website

Administrative Contact

Michael PELLOT (Mr.)

UNIVERSITAT POLITECNICA DE CATALUNYA
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<th><strong>Spain</strong></th>
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<td>Silvia Vallve (Ms.)</td>
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<td>Jouni Hiltunen (Mr.)</td>
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<td>Alberto Giretti (Dr.)</td>
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CNET SVENSKA AB

Sweden
EU contribution
€ 246 140

Address
Svardvagen 3A
182 33 Danderyd

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

Website
Contact the organisation

Administrative Contact
Ulf Wingstedt (Mr.)

Last update: 22 April 2017
Record number: 100734

Permalink: https://cordis.europa.eu/project/id/285408/

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