



# ACCUS

## Adaptive Cooperative Control in Urban (sub) Systems

### PROJECT description

ACCUS aims to provide an integration and coordination platform for urban systems in order to optimize their combined performance, thus achieving more flexible, more efficient, safer and more robust integrated urban systems and managing their emergent behaviors.

### RELEVANCE CALL 2012 objectives

ACCUS is focused on the integration of urban systems such as intelligent transport systems, city light systems and energy management systems. Rather than developing solutions for specific applications and scenarios, ACCUS will develop a theoretical framework (e.g. semantic interoperability concepts) and a practical framework (e.g. methodology, reference architecture) to design new applications within converged scenarios.

### MARKET innovation

The challenge of ACCUS is to provide short-term R&D results with commercial impact within a 3 to 5 years' range by pushing innovative solutions into the market based on new ICT and new ideas and supporting the development of new applications, by proposing open-platform and increased interoperability to the research and industrial community, in order to overcome the present technical barriers hindering these goals.

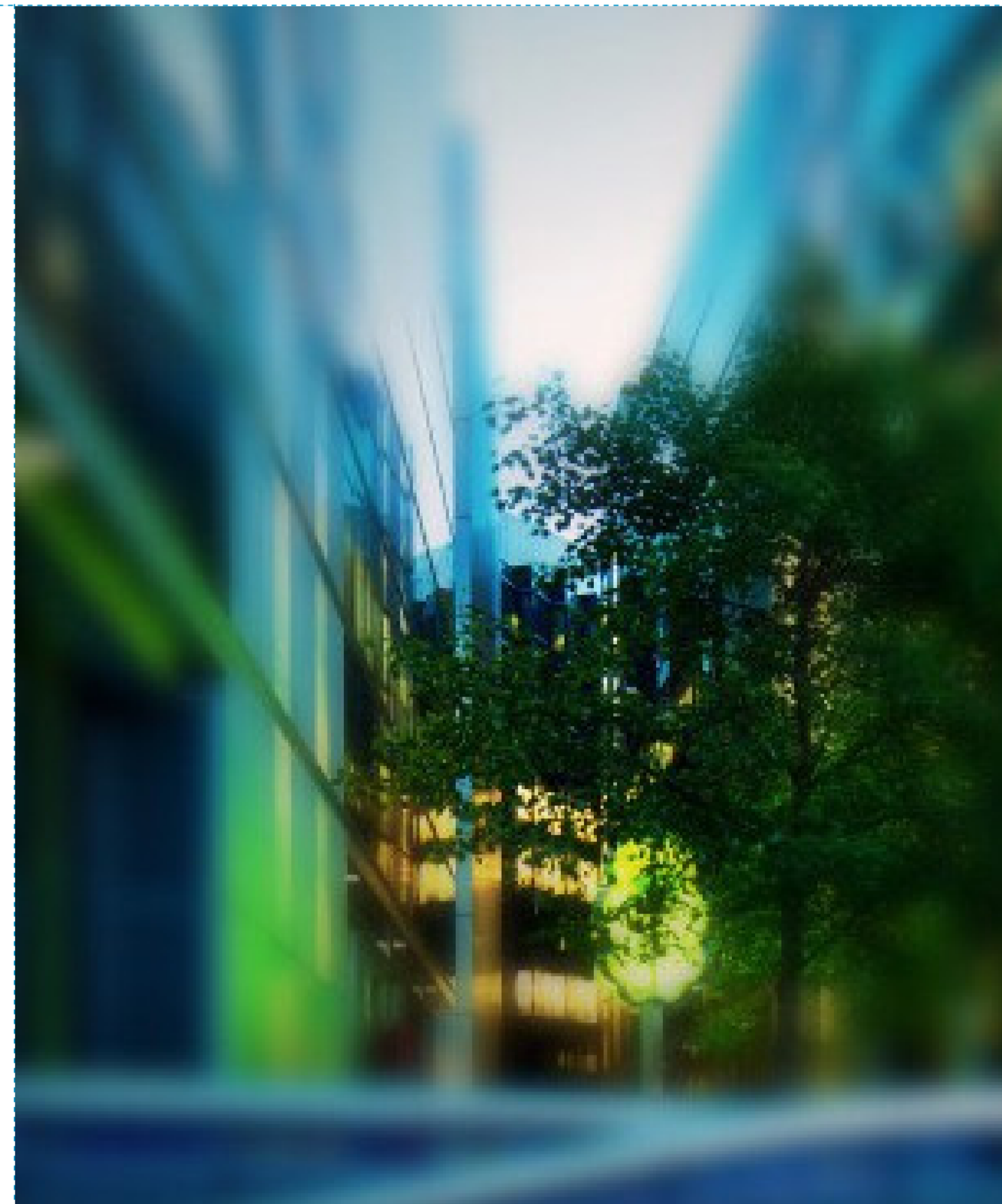
ACCUS is actively aiming at end user and stakeholder's involvement.

ACCUS will provide, from its Gdansk Use Case a strong impact in line with the new Smart Cities concepts under evolution, thus reinforcing the EU industrial competitiveness in this area.

### TECHNICAL innovation

The ACCUS project will provide an integration and coordination platform for urban subsystems to build applications across urban subsystems. This platform will be created with an adaptive and cooperative control architecture and corresponding algorithms for urban subsystems in order to optimize their combined performances. ACCUS will also provide methodologies and tools for creating real-time collaborative applications for System of Systems.

Different methodologies and tools will be designed for creating real-time collaborative applications for SoS, covering the entire life-cycle of applications for the integrated urban subsystems domain. Results include a *reference architecture, platform software, design tools for information extraction and control, model-based design environment for application development, validation tools for application development, monitoring and visualization tools to track the system level operation.*



<b>PROJECT COORDINATOR</b>	<b>START</b>
Santiago Benito Gregorio	June 2013
<b>INSTITUTION</b>	<b>DURATION</b>
Instalaciones Inabensa, S.A.	36 months
<b>EMAIL</b>	<b>TOTAL INVESTMENT</b>
santiago.benito@inabensa.abengoa.com	€12.02 M
<b>WEBSITE</b>	<b>PARTICIPATING ORGANISATIONS</b>
	27
	<b>NUMBER OF COUNTRIES</b>
	8

#### THE NETHERLANDS

DEVLAB DEVELOPMENT LABORATORIES

SECURITY MATTERS

THALES

TNO

TU/e Technische Universiteit Eindhoven University of Technology

#### FINLAND

UNIVERSITY OF EASTERN FINLAND

Hurja SOLUTIONS

DATACTICA

#### PORTUGAL

it

#### POLAND

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BetterSolutions we make IT better

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AZO DIGITAL

GDANSK UNIVERSITY OF TECHNOLOGY

#### SPAIN

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Universitat de Girona

#### CZECH REPUBLIC

CEITEC

Central European Institute of Technology BRNO | CZECH REPUBLIC

#### ITALY

ICIIE

ISTITUTO COOPERATIVO INNOVAZIONE

CPL CONCORDIA Group

#### SLOVENIA

INEA

Institut "Jožef Stefan" Ljubljana, Slovenija