i-Scope

interoperable Smart City services through an Open Platform for urban Ecosystems

www.iscopeproject.net

Overview

i-SCOPE project plans to develop and test technologies for the so-called smart cities services based on interoperable 3D Urban Information Models (UIMs). Indeed, the latest generation of UIMs created from accurate urban-scale geospatial information, can be used to create smart web services based on geometric, semantic, morphological and structural information at urban scale level, which can be used by local governments to:

- Improve decision-making on issues related to urban planning, city management, environmental protection and energy consumption based on urban pattern and its morphology.
- Promote inclusion among various users groups through services which account for barriers at city level.
- Involve citizens at wider scale by collecting geo-referenced information based on location based services at urban scale.

Furthermore, i-SCOPE aims at providing a significant contribution to standards in the domain of smart city services, through contribution to the extension and wider adoption of CityGML as a key enabling open standard for 3D smart city services. With specific regard to this, i-SCOPE has the following goals:
- Promoting establishment of a common "Urban Information Model" (UIM).
- Accelerate the uptake of CityGML as the reference standard to support simulation.
- Extending the core CityGML open standard.
- Promoting a number of awareness activities to accelerate the uptake of CityGML as the reference standard to support urban-scale smart services, sustainable planning and simulations.

Moreover, i-SCOPE will deliver an open platform on top of which to develop three 'smart city' services, which will improve:
- Inclusion and personal mobility of aging and diversely able citizens.
- Optimization of energy consumption
- Environmental monitoring.

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Fact & Figures

- i-SCOPE, interoperable Smart City services through an Open Platform for urban Ecosystems

- i-SCOPE is supported by the CIP / ICT Policy Support Programme Pilot Type B of the European Commission

- Framework:
Competitiveness and Innovation Framework Programme

- ICT PSP Identifier:
CIP-ICT-PSP-2011-5

- Objective Identifier 5.1: Open innovation for Internet-enabled services in «smart» cities

- Duration: 36 months

- Project Coordinator
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The Consortium

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CENTRAL EUROPEAN
INSTITUTE OF TECHNOLOGY

Vrije
Universiteit
Brussel

GISt

indeco

M.O.S.S.
Computer Grafik Systeme
Geoinformationssysteme

reggiani

C3L

GEOSYS

Ordnance
Survey

Epsilon
International S.A.

GEOFOTO

Informatica
Trentina SpA

ZADARSKA
ŽUPANIJA

Newcastle
City Council

Δήμος Δράμας

REGIONE LAZIO

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Short description of project progress

During the first year of the project, its activities have dealt with the **preparatory and initial development phases of the project.**

First of all, the activities that have been carried on have brought to the **identification of the different use cases and user requirements**, through the involvement of those partners and external stakeholders engaged within the different Pilots foreseen by the project.

Then, **metadata and system requirements have been identified**, and questionnaires have been deployed to make sure that all different requirements could be identified and detailed, in a formal manner, by the different partners. With regard to this, the activities have proceeded targeting more system-oriented requirements, necessary to identify the type of services and functionalities to be supported by i-SCOPE project.

Additionally to the activities of WP1, described so far, i-SCOPE has already ensured a **comprehensive range of dissemination activities** ensuring openness to the wider community of stakeholders from the very first stages of the project.

The most important **showcase for the project** is its website (www.iscopeproject.net), constantly updated with all the relevant information, including related events. From the website it is possible to get access to information on the project, its activities, and its partners. It is also possible to download PR material such as the project's flyer, brochures, as well as the newsletter.

Furthermore, a **number of parallel Web 2.0 communication channels** have also been deployed and constantly updated with the same aim of ensuring the stakeholders' involvement in the project. These include a LinkedIn group, a Facebook page, a Twitter micro blog and a YouTube channel. These Web 2.0 tools allow reaching a large community of stakeholders by ensuring prompt dissemination of relevant information through a variety of media channels, including news releases, videos, and webinars, to name but a few.

The partners have been also very active through a **number of dissemination activities**, which include news releases, scientific publications, meetings with key stakeholders, organisation of many i-SCOPE-branded events, including a key workshop at the recent INSPIRE 2012 conference, as well as presentations of the project to national or international conferences. Further details will be given in section 3 of this report.

One of the most relevant underpinning of the project has been the creation of a management structure based on a Project Office head by the Coordinator, and made by the Technical, Operational and Quality Manager. This has allowed an appropriate distribution of roles and responsibilities, and allows a continuous control over the different issues related to the project activities. Such an articulation of tasks is particularly relevant in i-SCOPE, which includes both substantial technical developments as well as a large set of operational activities.

Architectural Barriers Survey

Architectural Barriers Survey is an application for mobile devices that allows citizens to create a database of all the architectural barriers in a city by uploading pictures and comments.

Architectural Barriers Survey aims to improve inclusion and mobility of visually impaired and disabled citizens within our cities.

Many of you will think that this App provides useful services, but that does not concern you directly. Actually, our cities can be tortuous and challenging for everyone. You don't need to be a disabled person to have difficulty in moving or orientating in a city.

Think of an elder person, a boy with a broken leg, a mother that push the stroller of her child, or simply pretend to walk with one of these people and immediately the perspective changes.

Mobility is an issue that concerns every one!

For more information:
http://www.iscopeproject.net/iscopeNew/index.php/architectural-barriers-survey

NoiseTube

NoiseTube is an application that transforms your smartphone into an acoustic detector to measure noise pollution in a precise place and at a right time.

Using NoiseTube you will be able to detect the noise of your street, block or city.

Are you tired of not being able to open the windows in the summer because of the constant noise? Do you live near a highway or in a particularly busy road?

From now on you can measure the noise that you perceive, by yourself, in real time, and with a smartphone.

The set of data collected from individuals, allows creating mediated map, where the noise is represented by different colors based on the decibel detected.

Moreover, if the acquisition is carried out in a systematic manner, e.g. more people who repeat the same path several times (at least 50 takeovers), it will be possible to create maps with statistically reliable values.

Call some friends, choose a path, even a short one, e.g. from home to school, from home to work, the way from the gym to the store, whatever is convenient for you!

Turn your smartphone on, start walking and measure!

For more information:
http://www.iscopeproject.net/iscopeNew/index.php/noisetube.

Key Past Events

The main events that i-SCOPE Consortium has attended in these first six months of the second year of the project life have been:

- **CORP Conference** (www.corp.at), where a workshop of i-SCOPE project has been organized, and a paper entitled "*i-SCOPE: Smart Cities and Citizens*" has been presented.

- **Pre-FIA Workshop,** Dublin, Ireland, 07/05/2013, with a workshop entitled "Enhancing resilience of communities and territories through smart technologies".

- The i-SCOPE project was presented to the **general directors boards of the Autonomous Province of Trento**, managing the SIAT (The provincial territorial and environmental informative system), on the 30/05/2013.

- **INSPIRE Conference 2013.** The INSPIRE Conference 2013 took place from Sunday 23rd - Thursday 27th June 2013 in Florence, Italy. Fondazione Graphitech organized a workshop entitled "*Enhancing resilience of communities and territories through smart technologies*", and Federico Prandi presented the paper "*Application Domain Extensions definition for crowd source and Volunteer Geographic Information for smart-cities services deployment*". Moreover, Fondazione Graphitech attended the workshop "*Europa Challenge: NASA World Wind Apps for INSPIRE*", in which Alberto Debiasi presented the "*Visual Analytics Tool for Urban Traffic Simulation*".

- **18th International Conference on 3D Web Technology**, 20-22 June 2013 San Sebastian, Spain. The i-SCOPE project attended with the Paper on "Visualization and Analysis of CityGML Dataset within a Client Sever Infrastructure", which has been accepted for poster presentation.

- The project has been presented at the **Biennale dello Spazio Pubblico** (Rome, 16-18 may) by partners LAZ and CEIT.

- The i-SCOPE project has been presented at the conference **UDMS** - **Urban Data Management Symposium** - which have taken place in London from the 29th to the 31st of May 2013. Fondazione GraphiTech presented a paper titled: "Using CityGML to deploy Smart-City services for urban ecosystems".

- The presentation titled "Enhancing resilience of communities and territories through City GML: The iSCOPE experience" concerning the Standardization activities I-SCOPE achievements has been shown at **Cen287 workshop "The impact of Standards on pan-European Geographic Information projects"**, hosted in Oslo, Norway, on Wednesday 10th April 2013.

Events Focus

For more Information about Project Events visit the project website:
http://www.iscopeproject.net/iscopeNew/index.php/news

Project Meetings

Review Meeting

The first review meeting was held in Brussels, Belgium, on the premises of the European Commission, Communications Networks, Content and Technology Directorate-General - DG CONNECT, on the 25 October 2012.
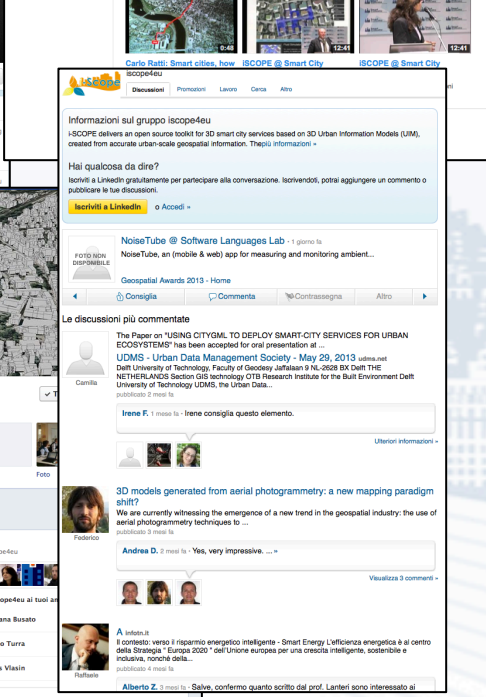
Kick-Off Meeting

The first (kick-off) project meeting was held in Brussels, Belgium, on the premises of the Vrije Universiteit Brussel, from the 23rd to the 25th of January 2012. The purpose of the meeting was to introduce the project and its work packages. All consortium members, EC project officer, advisory group members, related project representatives and invited guests attended the meeting.

The project was officially introduced by the project coordinator (Raffaele De Amicis - Fondazione GraphiTech), and then followed by the presentation of all the partners institutions. Next, the agenda of the first day also included presentations of each work packages by the WP leaders, which then continued on Day 3. The second day all the partners participated to the CIP, OPEN INNOVATION FOR SMART CITIES CONSTITUENCY BUILDING WORKSHOP organized by the European Commission, while in the 3rd day, after the presentation of the final WPs, there has been the description of the project management, with general information concerning project handbook, the appointed roles, communication practices, the procedures for quality and risk management, and the reporting procedures.
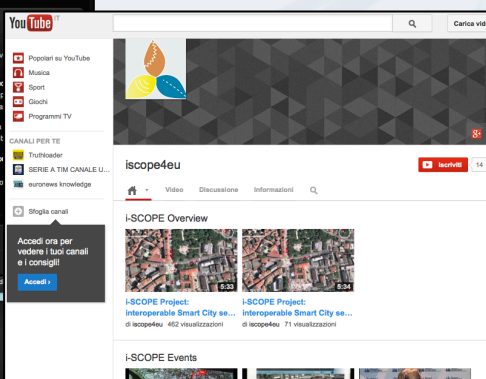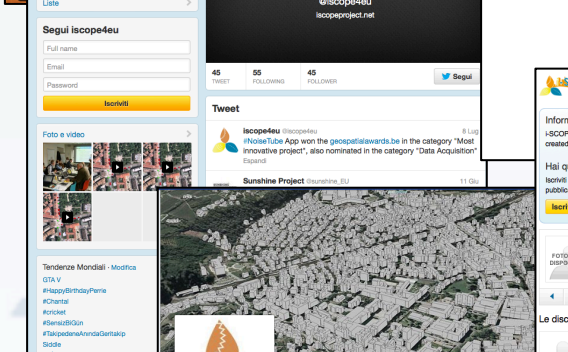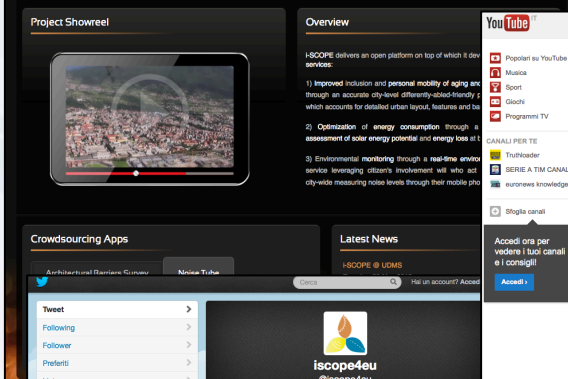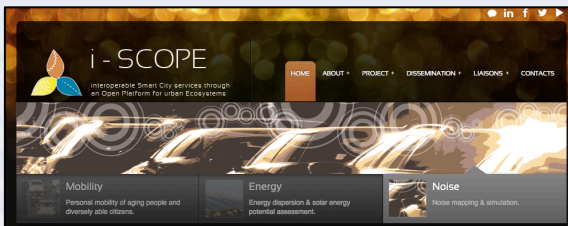
Belgrade Meeting

The last project meeting will be held in Belgrade from the 22nd to the 23rd of January 2013.

During the meeting the state of the art of the project activities was presented. Presentations were given by the work packages leaders, the task leaders and the project coordinator.

2nd Review Meeting

The second review meeting was held in Brussels, Belgium, on the premises of the European Commission, Communications Networks, Content and Technology Directorate-General - DG CONNECT, on the 24th April 2013.

The day after the Consortium meets so as to discuss the results of the review meeting and for brainstorming together about the future activities to be made, as well as the remedial actions to be taken so as to solve the problems raised by the reviewers.

Malta Meeting

The second project meeting was held in St Julians, Malta, from the 12th to the 14th of June 2012.
The meeting was hosted by the project partner GEOSYS.

During the meeting the state of the art of the project activities was presented. Presentations were given by the work packages leaders, the task leaders and the project coordinator. The third day started by presentation regarding the project management issues which was given by the project coordinator, while in the afternoon the sorting out of technical issues was discussed during the technical board meetings.

Above: Group shot during the Kick-off meeting

Below: Malta meeting

Follow us !

i-SCOPE @ Web 2.0

i-SCOPE project is also promoted through several social networks including Facebook, LinkedIn, Twitter and YouTube. These can be accessed at the following addresses or through the QR codes next to each of the social network logo.

Linked-in:
http://www.linkedin.com/groups/iscope4eu-4263048?trk=myg_ugrp_ovr

Facebook:
http://www.facebook.com/pages/iscope4eu/286235631430210

YouTube:
http://www.youtube.com/user/iscope4eu

Twitter:
https://twitter.com/iscope4eu