

# Digital Applications for Smart / Intelligent Cities

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### SAFETY AND SECURITY

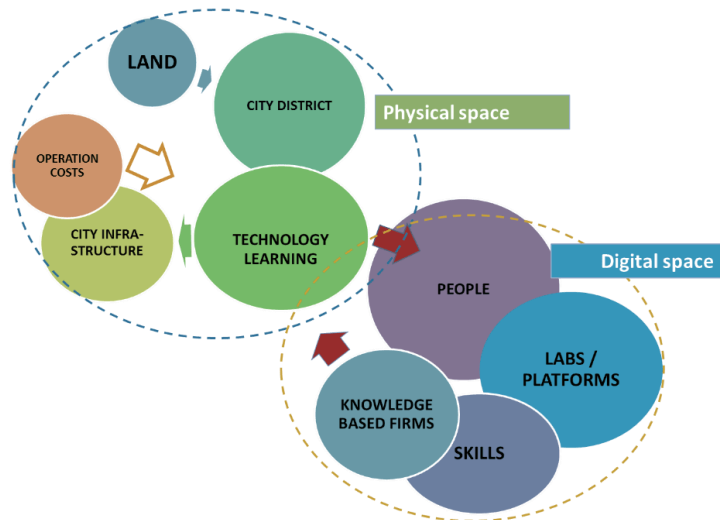
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# URENIO RESEARCH and INTELSPACE S.A.

URENIO Research is a university laboratory dedicated to support research and provision of technological services focused on the design and development of smart cities, innovation ecosystems, and innovation clusters. The laboratory is part of the Department of Urban and Regional Planning and Development, at the Faculty of Engineering of Aristotle University of Thessaloniki.

INTELSPACE is a spin-off company founded in 2005 by staff members of URENIO Research. The company provides research, consulting services, and digital services all focused on the smart cities domain, such as strategic planning, development of new applications, customization of open-source software, provision of open-source solutions, and training.



## An integrated portfolio of applications for smart cities

We promote the development of cities and regions, driven by innovation, the participation of citizens and stakeholders, the improvement of human skills, and smart cities as a modern model for urban design and development. We offer integrated approaches and solutions for smart city development at the level of assessment, strategy, planning, and digital applications development. We create solutions for smart cities which incorporate the most recent technological advances to solve real problems in the domains of growth, sustainability, and safety.

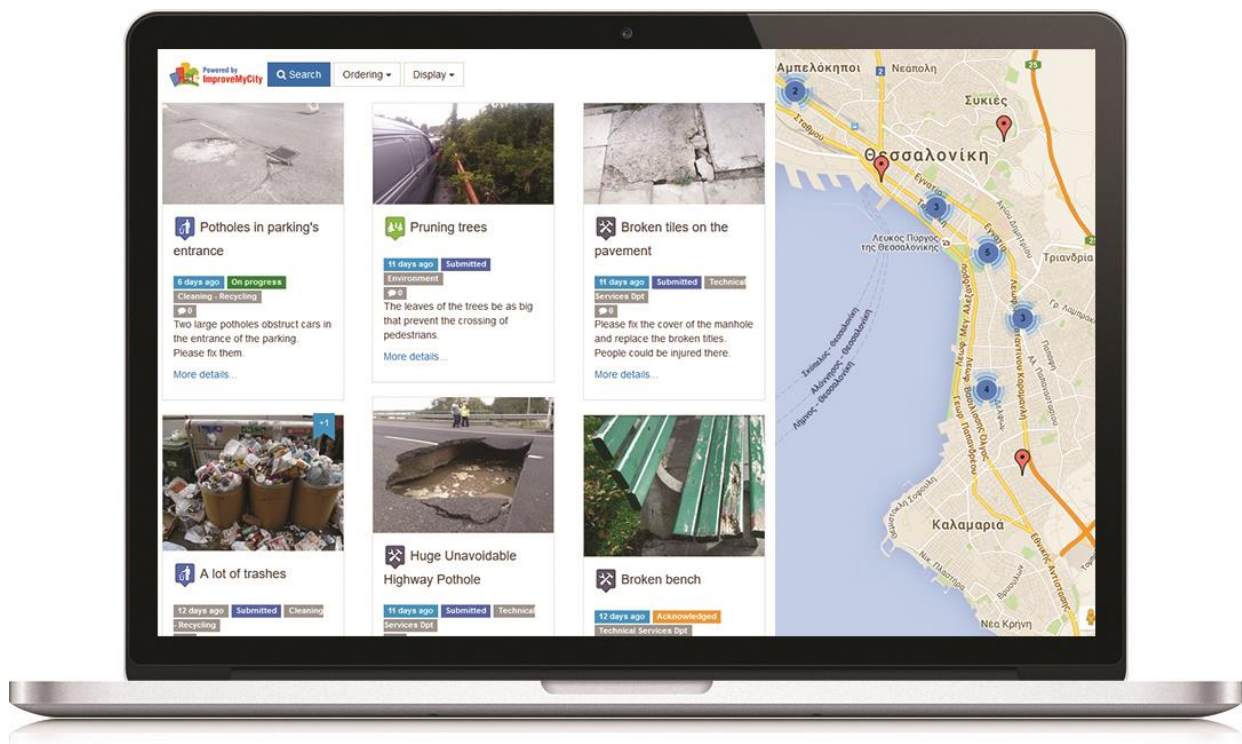
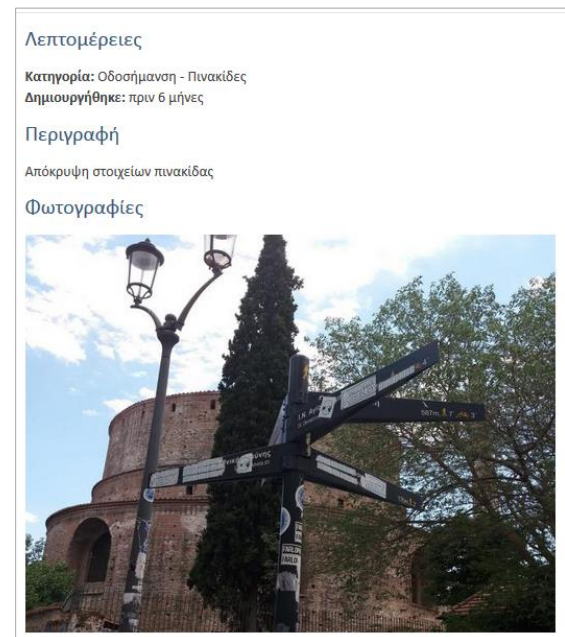
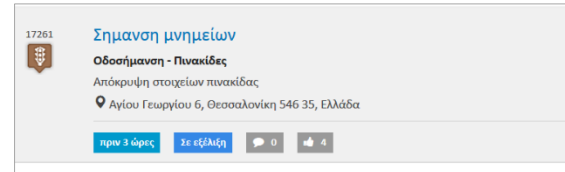
The services we offer to the cities are:

- Strategy for developing smart city applications that best meet the particular needs of each city
- Software applications design development, improvement and customization
- Training of staff members in applications management
- End-user support
- Applications hosting on the cloud and analytics.

# 1. Improve my City

This application for smart cities allows direct management and solving of local problems, in the urban environment, that are identified through citizens' requests.

Citizens mark on map local problems such as street pits, disposition of garbage and debris, broken pavement tiles, electric lighting problems, illegal advertising boards, and more, issuing a request to the Municipality to handle the problem. The Municipality receives and processes the requests and responds directly to the citizens, through the platform. Citizens can additionally vote on the importance of each problem and propose new solutions to improve the environment in their neighborhood. The result is a better and cleaner urban environment with improved quality, achieved by engaging citizens and by the direct response of public administration.





## 2. Citizens' Engagement in Local Policy Design

### Co-design for Regional Authorities



#### Setup a RIS3 Action Plan Co-design Process

Initiate the co-design process by adding to the platform your region's Action Plan. Receive feedback from stakeholders and citizens.

#### Find a Relevant Action

Search and browse actions based on their Thematic Objectives / Investment Priorities, Target groups / Beneficiaries and Involved Actors.

**With this application, the municipal authority can initiate public dialogue with citizens, co-shape with them the vision for the development of the city and then, co-design a relevant action plan.**

The Municipality opens discussion on selected topics. On these topics, citizens can express their ideas and opinions, propose alternatives and vote for the best solutions. This application gives the Municipality the opportunity to co-shape a collective vision for development together with the citizens, entrepreneurs and all interested parties. Co-shaping of the vision may take place in one or more sessions. Then the Municipality publishes the relevant action plan for the realization of the vision and the citizens can comment on and propose improvements to this plan.

### Co-design for Citizens



#### Co-design Your Region's Action Plan

Search and browse action plans based on their Region and Consultation Status (Open / Closed).

#### Find a Relevant Action

Search and browse actions based on their Thematic Objectives / Investment Priorities, Target groups / Beneficiaries and Involved Actors.

#### Leave a Reply

Logged in as Panagiotis Tsarchopoulos, Log out?

☒ Include rating

How complete do you consider the description of the action? ★★★★★

How effective do you consider the action? ★★★★★

How popular do you consider the action? ★★★★★

How innovative do you consider the action? ★★★★★

How mature do you consider the action? ★★★★★

Overall Evaluation ☐ Not approve the action ☐ Approve with modifications ☒ Approve the action

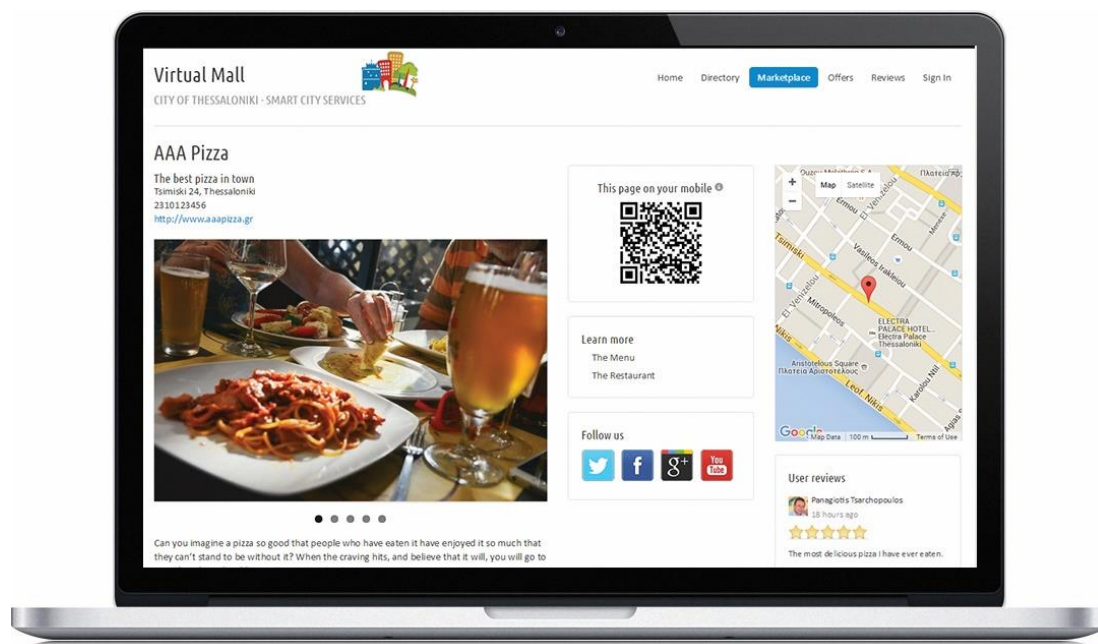
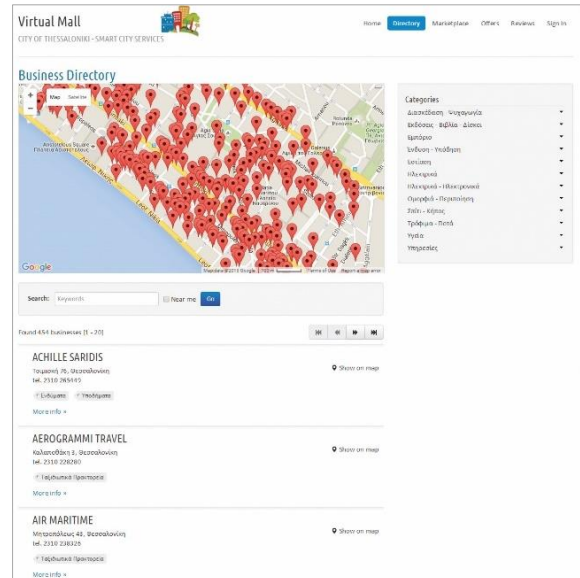


### 3. Digital Marketplace

**A digital application that supports the promotion and networking of local businesses, boosting the local economy and facilitating cooperation between municipal authorities and stores.**

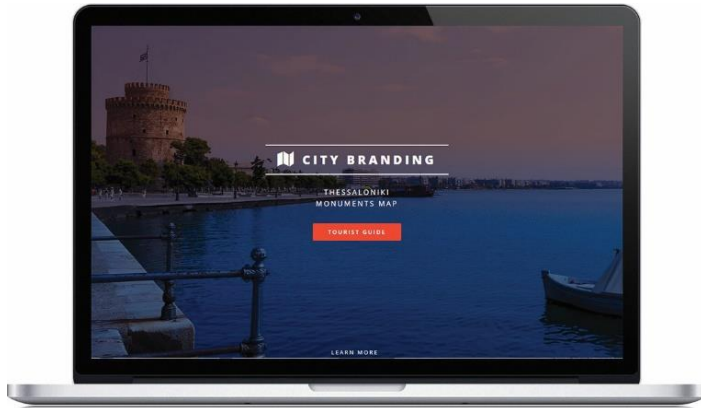
This is an application that enables every commercial company located in the city to create its own virtual store free of charge, while allowing customers to access a wide range of stores through a single website.

In its simplest form, the service offers a list and a location map of the businesses located in the city, as well as their contact details and their offers. In addition to providing support to local entrepreneurs, the Digital Trade Center strengthens the development of clusters among businesses, giving the opportunity to create open shopping malls by grouping stores in areas or streets.



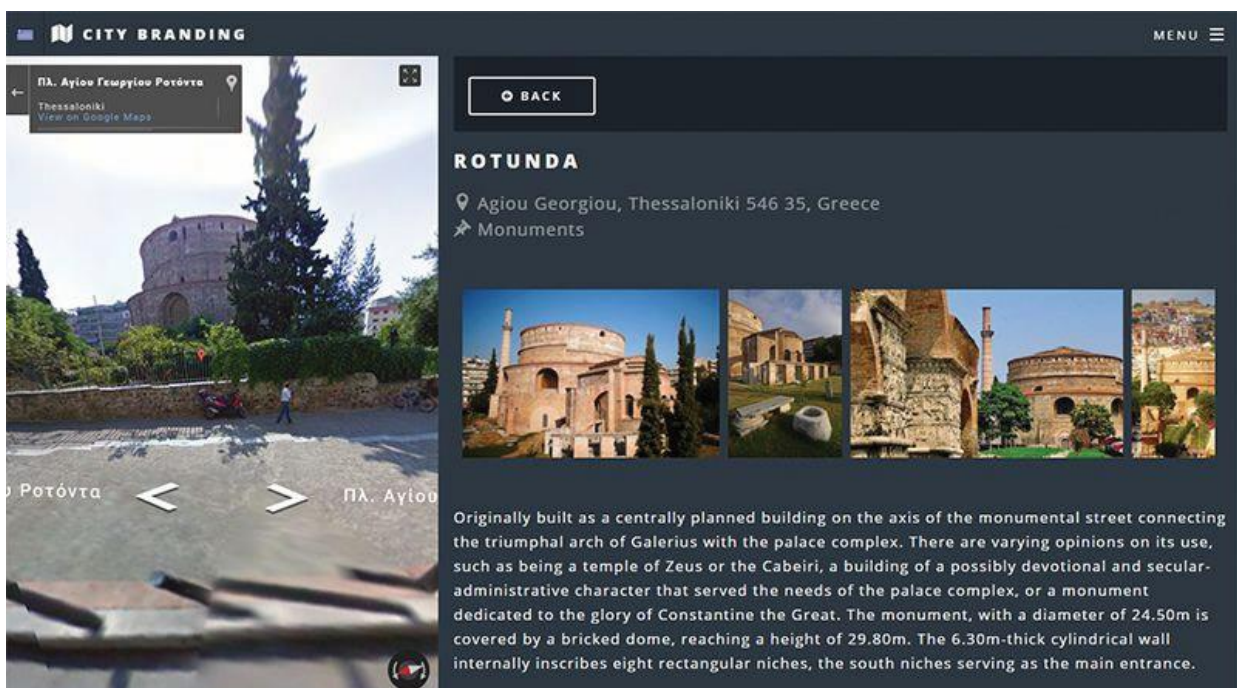


## 4. City Branding and Promotion



A digital application that promotes the identity of a city to different target groups of tourists using digital virtual tours while at the same time strengthens the local economy.

The City Branding and Promotion application promotes the city's identity through digital tours and links points of interest to local shops and service providers. It allows Municipalities to offer targeted information to target groups of tourists based on their correlation to specific aspects and elements of the city's identity (history, culture, economic environment, etc.). The application is multilingual so that all potential interested people can use it, including both domestic users as well as visitors from abroad. It is an application that contributes to the improvement and specialization of the touristic product, resulting in the upgrading of the attractiveness of the city to tourists and visitors.



## 5. Crowdfunding

A digital application that supports crowdfunding functions in order to raise money and other resources (food, clothes) for social and welfare purposes. Through this application, social networks that promote synergies are developed.

This application supports crowdfunding actions, that is to say, raising capital and resources from citizens. Through this application, the Municipality supports local communities to raise money or other goods (e.g. clothes, food, volunteer work, etc.) to be used for social and welfare purposes.

Examples of supported projects are funding for the creation of new infrastructures and projects to improve the urban environment, support to social entrepreneurs and young entrepreneurs, as well as the gathering of goods for social purposes. The Crowdfunding application is based on a branch of the Goteo platform.

**The bus project**  
The "Help Children Education" needs a bus to carry children from shelters and homes to their schools.  
By: Help Children Education

Project Needs Co-financiers (1) Crowdsourcing (1) News

CROWDFUNDING Ένα λεωφορείο για την κιβωτό  
Ένα Λεωφορείο για την Κιβωτό  
Crowdfunding

SHARE THIS PROJECT

Twitter <https://smartcity.thessaloniki.gr/crowd-funding/project/the-21>  
Facebook  
Google+ PROJECT WIDGET

**The bus project**  
The "Help Children Education" needs a bus to carry children from shelters and homes to their schools.  
Help Children Education operates 10 homes and a central building, where it takes place the study, feeding, the various activities and services.  
To transfer the children from the homes to their schools and in our central building, we need a 25 seater bus. Until now such transfers are made daily with various cars. Therefore, the existence of a bus for the team move is imperative from the utilitarian standpoint and primarily for the safe of our children.

THESSALONIKI CLOUDFUNDING

DISCOVER START Search COMMUNITY LOGIN

Social network for co-financing and collaborating with creative projects that further the common good

**The bus project**  
This is a good cause

**BlindTech**  
See this project. It is the best

**New Playground**  
A new space for kids' activities

**The 25 seater bus project**  
By: Imak  
The "Ark of the World" needs a 25 seater bus to carry children from shelters and homes to their...

**BlindTech**  
By: Christina Kahleri  
For blind children, a world of digital resources and opportunity can remain inaccessible without...

**New printer**  
By: Christina Kahleri  
Ένα νέο Εμπνευσμένο Υποβύθιο ή συνεργάτης σε ερευνητικό πρόγραμμα σας δίνεται η δυνατότητα...

**Co-financing**  
MINIMUM 89.790 € OPTIMUM 99.790 €  
RECEIVED 1.000 €  
REMAINING 0 DAYS  
CO-FINANCERS 1

**Co-financing**  
MINIMUM 8.750 € OPTIMUM 11.150 €  
RECEIVED 1.020 € 26%  
REMAINING 0 DAYS

**Co-financing**  
MINIMUM 8.750 € OPTIMUM 11.150 €  
RECEIVED 1.020 € 26%  
REMAINING 0 DAYS

**ECONOMIC NEEDS**

IN PROGRESS!

**Co-financing**

OPTIMUM 99.790 €  
MINIMUM 89.790 €  
RECEIVED 1.000 €  
REMAINING 0 DAYS  
CO-FINANCERS 1

CO-FINANCE THIS PROJECT See more »

**NON-ECONOMIC NEEDS**

**Looking for**

Driver needed  
If someone would like to drive the bus...

COLLABORATE See more »

**WHAT IS OFFERED IN EXCHANGE**

**Collective benefits**

Help: Help Ark of the World  
Transfer the children from the homes to their schools and in our central building

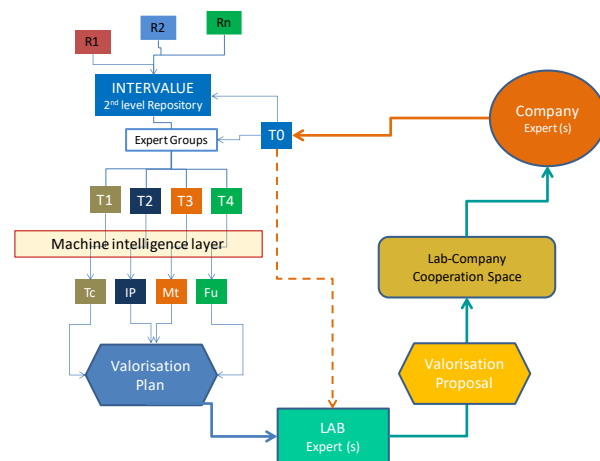


## 6. Valorisation of Research Results

The screenshot displays the InterValue Platform website. At the top, there are logos for various partners including URENIO, SEERC, ACCORD, ITTK, RDA SW OLENTIA, ARC FUND, and SOUTH EAST EUROPE, along with the European Union flag. The navigation bar includes links to Platform Home, R&D Repository, Valorisation Plans, and Implementation. The main header reads "InterValue Platform". Below this, a section titled "Collaboration for the Valorisation of R&D" describes the platform's role in supporting the valorisation process and facilitating collaboration. Three main service boxes are highlighted: "R&D Repository" (submitting research outcomes), "Valorisation Plans" (creating plans for technical feasibility, IP protection, and funding), and "IP Agreements" (facilitating license agreements and product development). Each box includes an icon and a "Learn more" or "View" button. The footer indicates the copyright for the 2009-2010 INTERVALUE Project.

**This is a platform for the registration, processing, and exploitation of research results and intellectual property products.**

It includes (1) a database and repository of research results, (2) business exploitation plans for the research results and profiles of experts in developing such exploitation plans, (3) guides on Intellectual Property management during the exploitation of research results.



The research results are recorded on a basis of a guide that depicts their main characteristics and they are classified by technological area, industry sector, and research organization. The business exploitation plans describe technical feasibility, method to protect intellectual property, the foreseen potential markets, and the funding needs for their deployment as products. The guides on Intellectual Property management are complemented by brokerage events and successful examples of transforming research into products and services.

## 7. Improving Environmental Footprint



An application that records and promotes energy saving in public and private buildings, contributes to the creation of a 'green' Municipality and strengthens the environmental awareness of citizens.

The Municipality and the citizens register parameters regarding the construction characteristics and the surface of the buildings that interest them, as well as the heating, cooling and ventilation systems used. The application supports the calculation of the energy consumed and their environmental footprint. It also suggests ways to save energy and adopt practices that are more environmentally friendly. The application can be used in public buildings, giving a 'good example' and a model of 'green' thinking, but also by citizens who are interested in watching the energy they consume and the individual and collective benefits resulting from the improvement of the model of energy consuming.

CURRENT PROJECT: XENIA HOTEL

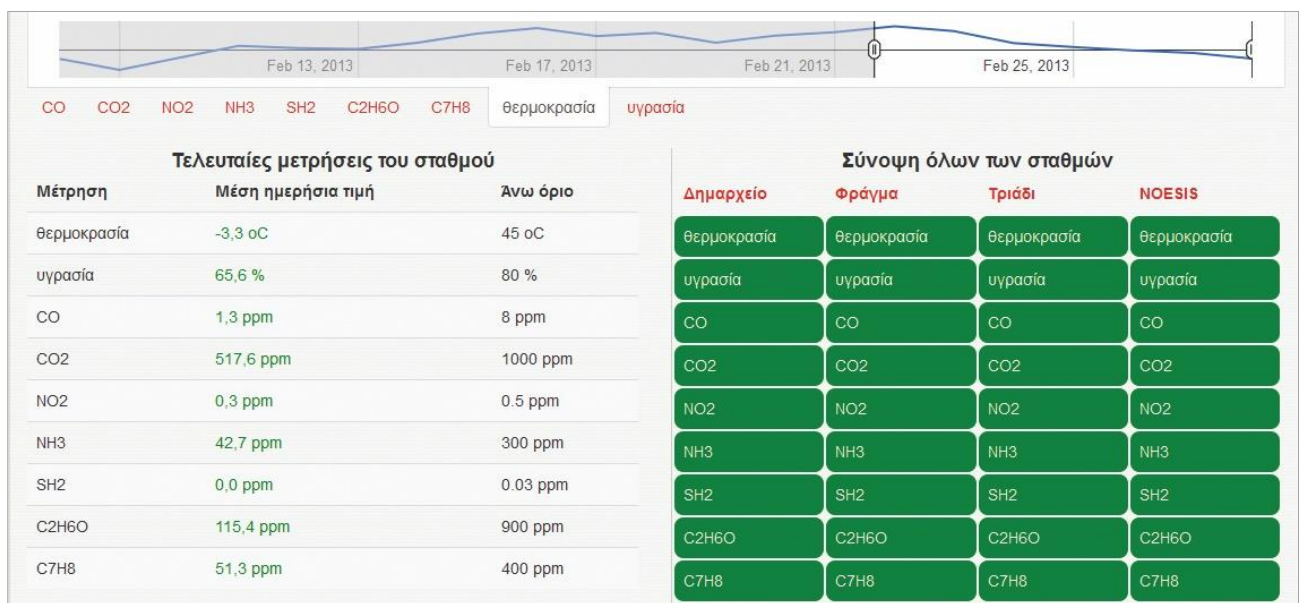
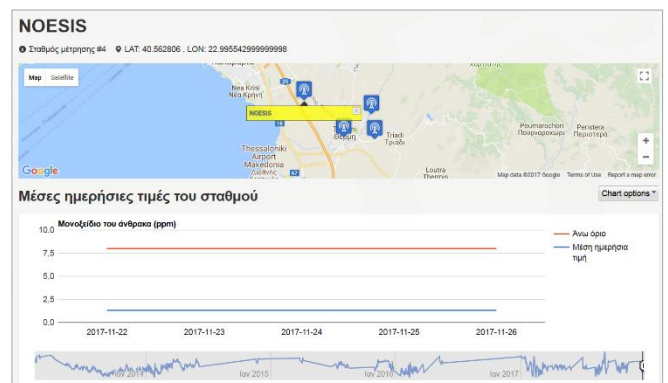
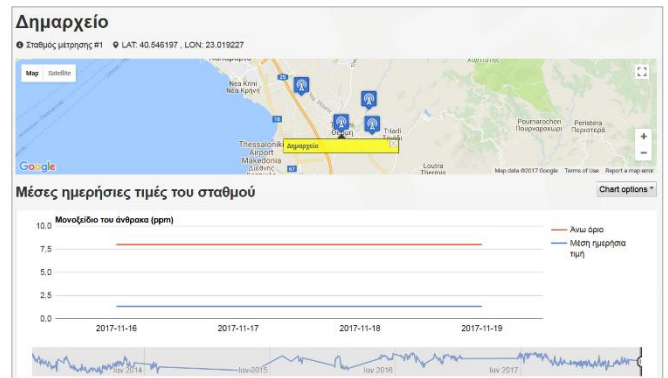
You have complete the questionnaire! The following reports are available:

<p><b>Energy related report</b></p>  <p>Assessing your hotel's current energy use/efficiency and carbon footprint.</p>	<p><b>Energy solutions</b></p>  <p>Assessing your hotel's current energy use/efficiency and carbon footprint.</p>	<p><b>Carbon footprint</b></p>  <p>Measuring your hotel's impact on our climate by estimating the total set of greenhouse gases (GHG) emissions.</p>
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## 8. Wireless Environmental Monitoring Network

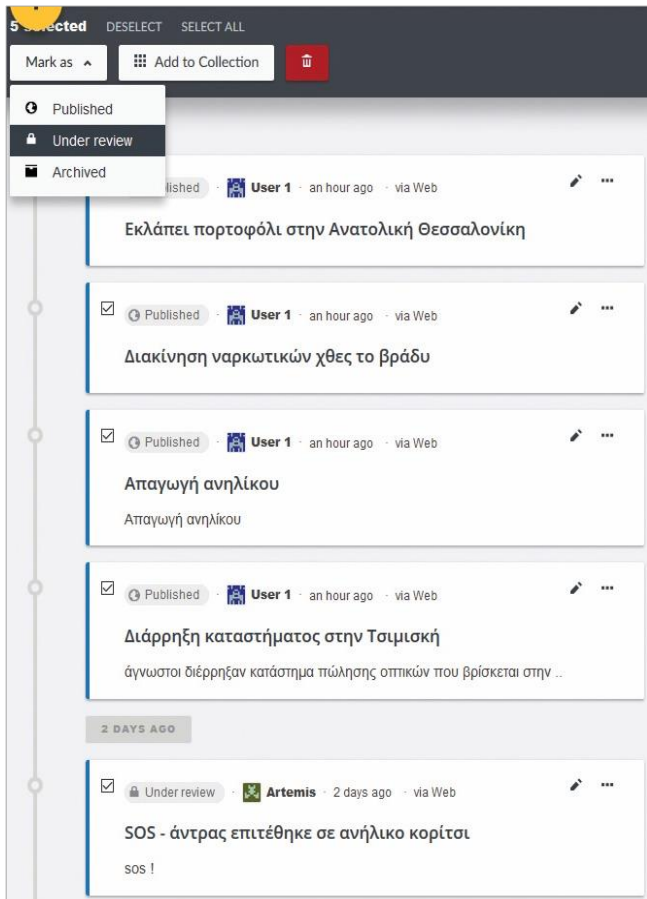
An application that visualizes environmental data such as humidity and air pollution in the territory of the Municipality.

This application concerns the installation of sensors that measure environmental data such as temperature, humidity, noise and atmospheric pollution (eg CO<sub>2</sub>, CO and NO<sub>2</sub>) and forward these measurements to data acquisition and processing stations. Then the data are visualized and presented to citizens in various ways: via the internet, through large screens placed in selected locations or even using large balloons of different color depending on the pollution. This way, the Municipality provides structured, real-time information to citizens regarding the environment status in its territory and monitors the evolution of environmental conditions over time.



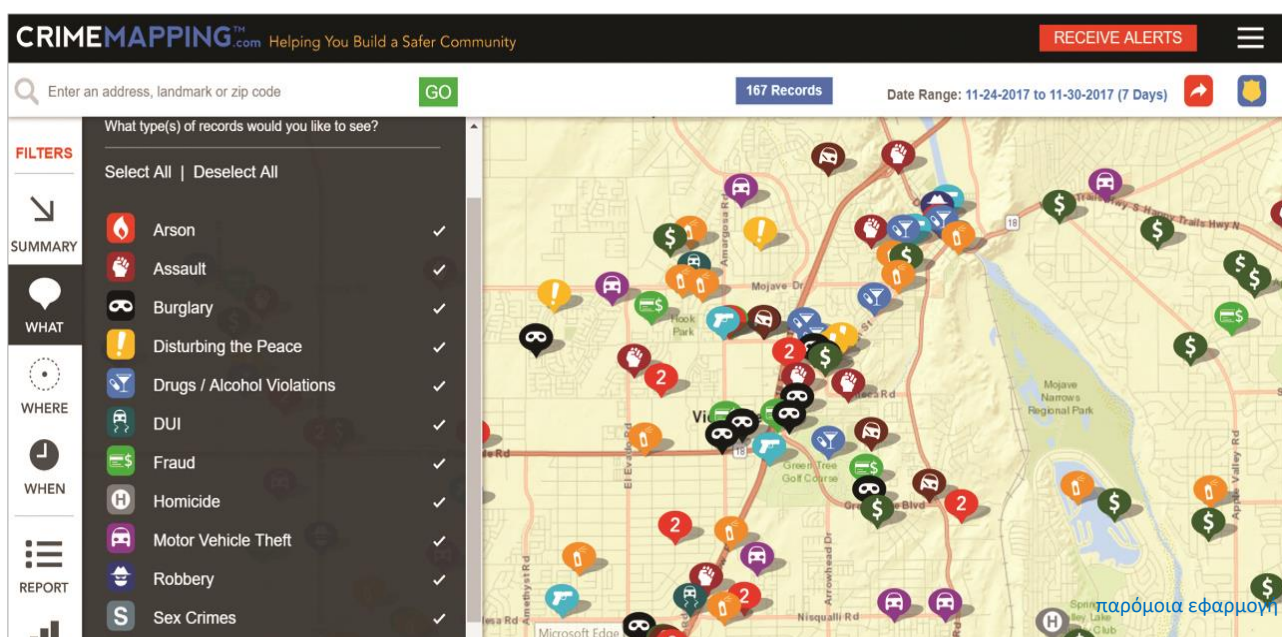


## 9. Improving Public Safety



An application that allows citizens to report and map risks related to public security, such as thefts, incidents of violence and crimes.

The application users report events that threaten public safety in the area of the Municipality and remarks on relevant risks. Such incidents are small and large thefts, incidents of violence and crimes of all kinds. The reporting of the incidents is performed on a map depicting the area of the Municipality. By using this application, the administration and in particular the Municipal Police is informed in real time of the various events. Significant benefits also arise from the identification of the areas where more frequent offending phenomena occur, allowing the Municipality to implement projects to improve the safety of the area and the Municipal Police to strengthen its forces in the areas that are most in need.



# 10. Alerts of floods, earthquakes and natural disasters

An application for smart cities that allows citizens and public administration officers to publish alerts and get information about the evolution of problems such as floods, fires, earthquakes and dangerous weather phenomena.

Citizens using this application for security and protection in the territory of the Municipality, are informed in real time about the type, extent and location on the map of dangerous weather and natural phenomena. Events can be registered either by the Municipality or by the citizens themselves. This way, the administration can act more directly and effectively against problems such as floods and fires. An important benefit for the city is also the identification of problems (eg floods) that occur more often in certain neighborhoods, allowing a better planning of its technical projects and to improve its readiness towards unexpected natural disasters.

Τίτλος: \*

Κατηγορία φαινομένου: \*

☐ Πυρκαγιά   ☐ Σεισμός   ☐ Πλημμύρα   ☐ Θυελλώδεις άνεμοι  
☒ Χιονόπτωση - παγετός - χιονοστοιβάδα   ☐ Δριμύ ψύχος   ☐ Χαλαζόπτωση  
☐ Ομίχλη   ☐ Κατολισθήσεις   ☐ Ηφαιστιακή δράση   ☐ Επικίνδυνη ρύπανση

Ένταση:

☐ Ασθενής   ☒ Μέτρια   ☐ Ισχυρή

Τοποθεσία: \*

Χρήση τρέχουσας τοποθεσίας

Χρησιμοποιείτε την αναζήτηση ή κάντε κλικ στο χάρτη.

Έκταση φαινομένου: 1km

Ημέρα και ώρα συμβάντος:





# The ICOS Repository at URENIO Research: Applications for Smart Cities

The open Intelligent City Software and Solutions Repository (ICOS) is an initiative to gather and promote smart city applications in municipalities, computer scientists, generic users and their communities.

More than 140 applications are gathered in ICOS covering the following topics: Innovation in the local economy, Quality of Life in cities, Urban Infrastructure Management and Urban Governance.

By entering the ICOS website (<http://icos.urenio.org/>) you can be informed about available apps and discuss with us how we can use them for your Municipality.

The screenshot displays the ICOS website interface. At the top, there is a header with the ICOS logo (a gear with 'IC OS' inside) and the text 'Intelligent City Software & Solutions'. To the right is the URENIO logo (Urban and Regional Innovation Research, Aristotle University of Thessaloniki). Below the header is a navigation bar with links: Home, Applications, About, Participate, Feedback, Blog, and a search bar. The main content area has a blue background with the title 'An Open Repository of Solutions for Intelligent Cities' and a description: 'ICOS website supports a community offering software and solutions in the field of intelligent cities / smart cities. The community will serve to showcase existing projects, provide a forum for discussing projects and processes, and guide developers' groups in applications' creation, contribution, and release.' Below this is a green button 'Submit your Application' and social media icons for Twitter and RSS. A section titled 'Featured open source applications for:' follows. It contains six categories, each with a thumbnail image and a brief description: 1. Innovation Economy (Citizeninvestor), 2. Living in Cities–Quality of Life (AirCasting), 3. City Infrastructure and Utilities (OpenTraffic), 4. City Governance (Envision Tomorrow), Generic (Mapzen), and Latest from URENIO Watch (a list of news items). The bottom of the page features the URENIO logo and the intel space innovation technologies logo.

**Intelligent City Software & Solutions**

URENIO  
URBAN AND REGIONAL INNOVATION RESEARCH  
ARISTOTLE UNIVERSITY OF THESSALONIKI

Home Applications About Participate Feedback Blog

**An Open Repository of Solutions for Intelligent Cities**

ICOS website supports a community offering software and solutions in the field of intelligent cities / smart cities. The community will serve to showcase existing projects, provide a forum for discussing projects and processes, and guide developers' groups in applications' creation, contribution, and release.

[+ Submit your Application](#) or stay informed

Featured open source applications for:

- 1. Innovation Economy**  
  
**Citizeninvestor**  
A crowdfunding and civic engagement platform for government projects
- 2. Living in Cities–Quality of Life**  
  
**AirCasting**  
An open-source, end-to-end solution for collecting, displaying and sharing health and environmental data
- 3. City Infrastructure and Utilities**  
  
**OpenTraffic**  
A global data platform to process anonymous positions of vehicles and smartphones into real-time and historical traffic statistics
- 4. City Governance**  
  
**Envision Tomorrow**  
An open-access suite of urban and regional planning tools
- Generic**  
  
**Mapzen**  
An open, sustainable and accessible mapping platform
- Latest from URENIO Watch**
  - Smart Cities made even smarter by new technologies 01/12/2017
  - Human rights aspects in India's Smart City Mission: a study by HLRLN, India 30/11/2017
  - Ten use cases of innovative data – driven approaches for policymaking at EU level 29/11/2017
  - The Value lies in the Network: The Success of Platform Companies 27/11/2017
  - EasyPark: 2017 Smart Cities Index 27/11/2017
  - Scientific American: The Inconvenient Truth about Smart Cities 25/11/2017
  - A dashboard to visualize Horizon 2020 performance metrics 24/11/2017
  - The Financial Times: Smart cities might not be such a bright idea 24/11/2017
  - Smart cities: A snapshot of Australia in 2017 23/11/2017
  - Moscow rapidly transforming into a Smart City 22/11/2017

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intel space  
innovation technologies



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