



CITI-SENSE is a Collaborative Project under EU FP7-ENV-2012, project n° 308524, with duration of four years, beginning in October 2012. The consortium comprises of 27 partner institutions (academic/research institutions and SMEs), with partners from Europe, South Korea and Australia and has a total budget over EUR 12,000,000.



Air quality and climate change, environmental quality of public spaces in cities and indoor environment especially in schools are areas that engage most citizens and other stakeholders. Access to information varies with user group and issue. Needs for information, and engagement in the issue, also vary with user group. Sources of information vary across the issues: in some areas, many information sources can be combined to provide high quality information; for other issues, no or very little information is available.

CITI-SENSE will develop "citizens' observatories" to empower citizens to contribute to and participate in environmental governance, to enable them to support and influence community and societal priorities and associated decision making. CITI-SENSE will develop, test, demonstrate and validate a community-based environmental monitoring and information system using innovative and novel Earth Observation applications.

The project will: (i) raise environmental awareness in citizens, (ii) raise user participation in societal environmental decisions and (iii) provide feedback on the impact that citizens had in decisions. It will address effective participation by citizens in environmental stewardship, based on broad stakeholder and user involvement in support of both community and policy priorities. The project aims to learn from citizen experience and perception and enable citizenship co-participation in community decision making and co-operative planning.



Figure 2. Examples of sensors and sensor platforms.

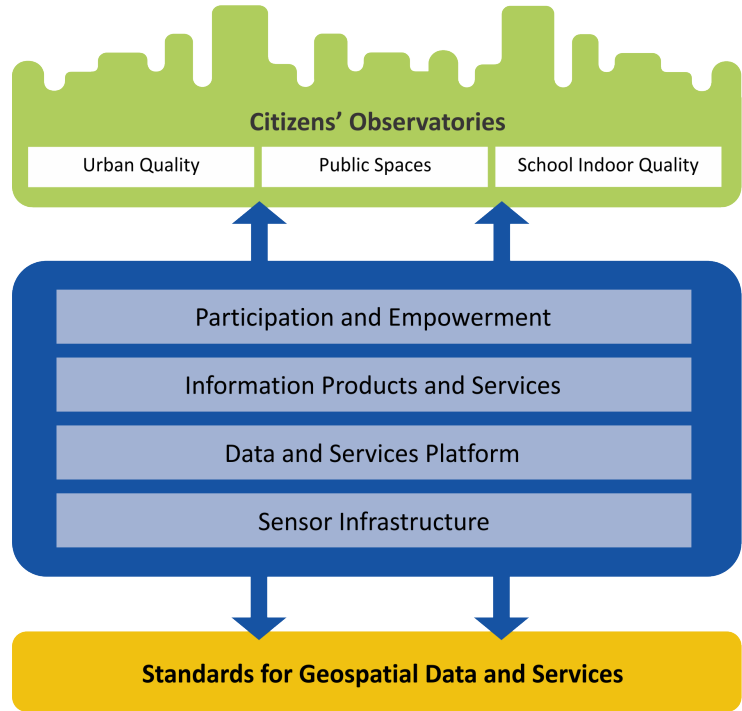


Figure 1. Schematic overview of the project elements and partner involvement in CITI-SENSE.

The concept of CITI-SENSE rests on realizing the chain "sensors-platform-products-users" (Figure 1). The elements of this chain are: technologies for distributed monitoring (sensors); information and communication technologies (platform); information products and services (products); and citizen involvement in both monitoring and societal decisions (users).

In the project, citizens' observatories will be established in 9 cities across Europe (Barcelona, Vitoria, Oslo, Haifa, Vienna, Ostrava and the Silesia region, Beograd, Edinburgh, and Ljubljana) addressing important societal issues as air quality, noise, UV radiation, thermal comfort outdoors and

indoor environments in schools.

Multi-parameter atmospheric quality monitoring based on low-cost sensor technologies will be implemented (Figure 2). The monitoring networks will be mainly based on mobile personal sensors. The resulting dense monitoring network (up to 100 participants in each city) will allow us to investigate exposure patterns based on geographical positioning, physical activity and other information. Furthermore, personal information will be provided as feedback to the citizens, and centralized for use by citizen and decision makers contributing to the achievement of community and societal policy objectives.

Project Partners

- NILU-Norwegian Institute for Air Research, NO
- Peter van den Hazel, NL
- Norwegian Asthma and Allergy Association, NO
- Technion – Israel Institute of Technology, IL
- Czech Technical University, CZ
- Queensland University of Technology, AU
- AirBase Systems Ltd, IL/DE
- CRIC-Centre de Recerca I Innovació de Catalunya, ES
- GAC Ltd, CZ
- IOM-Institute of Occupational Medicine, UK
- Iritziak Batuz, ES
- Sensing & Control Systems SL, ES
- Alphasense Limited, UK

- UBIMET GmbH, AT
- U-Hopper, IT
- CREAL – Centre for Research in Environmental Epidemiology, ES
- Institute of Experimental Medicine, Academy of Sciences of the Czech Republic, CZ
- Vinca Institute of Nuclear Sciences, RS
- Jozef Stefan Institute, SI
- Stiftelsen SINTEF, NO
- Tecnalia – Fundacion Tecnalia Research & Innovation, ES
- Korea Institute of Construction Technology, KR
- University of Cambridge, UK
- DunavNet doo Novi Sad, RS
- Snowflake Software, UK
- Geotech, UK
- Obeo, NO

