

		<p>Project title: Development of sensor-based Citizens' Observatory Community for improving quality of life in cities</p> <p>Acronym: CITI-SENSE Grant Agreement No: 308524</p> <hr/> <p>EU FP7- ENV-2012 Collaborative project</p>
---	---	---

Deliverable D 9.13

Dissemination report year 3

Work Package 9

Date: 19.10.2015

Version: 1.3

Leading Beneficiary:	Sensing & Control System (S&C)
Editor(s):	Sofia Aivalioti (S&C)
Dissemination level:	PU (Public)

Versioning and contribution history

Version	Date issued	Description	Contributors
0.0	09.09.2015	Summary of dissemination activities from M24 to M36.	Sofia Aivalioti (S&C), All
0.1	26.09.2015	Contribution for Technion Dissemination activity	David Broday (Technion)
0.2	28.09.2015	Contribution for JSI Dissemination activity	Johanna Robinson (JSI)
0.3	28.09.2015	Dissemination activities in the Oslo school case study (NILU, SINTEF, NAAF)	Britt Ann Kåstad Høiskar (NILU)
0.4	29.09.2015	Edited changes and added SINTEF dissemination actions	Sofia Aivalioti (S&C)
1.0	01.10.2015	Edit changes	Sonja Grossberndt (NILU), Sofia Aivalioti (S&C)
1.1	07.10.2015	Dissemination activities in the Oslo Empowerment Initiative (NILU)	Nuria Castell (NILU)
1.2	14/10/2015	Edit changes, added IEM dissemination activities and first open conference sub-chapter.	Sofia Aivalioti (S&C), Daniele Miorandi (U-Hopper)
1.3	19/10/2015	Ready for submission	Sonja Grossberndt (NILU), Sofia Aivalioti (S&C)

Executive Summary

This deliverable presents the summary of all dissemination activities performed by the CITI-SENSE partners during the third year of the project from M19 to M36. The present report is a continuation of the deliverable *D9.11 Dissemination Report Year 1 &2* which is the summary of all the dissemination activities of the first two years from M1 to M18. The dissemination activities aim to inform and engage all interested parties, the EC, the scientific community, civil society, industry, citizens associations, local authorities and the media. In this report the dissemination activities performed for the CITI-SENSE project are categorized in four broad topics:

1. Scientific publications

Scientific publications include submitted and published articles to scientific journals and articles and abstracts published in conference proceedings.

2. Events

Events include participation in conferences, seminars, exhibitions, festivals etc. with the purpose to promote the CITI-SENSE project, inform about ongoing research and results.

3. Press and media campaigns

Press and media campaigns include all articles published in printed and online newspapers, articles published on other websites, press releases, creation of websites, creation of social media groups, interviews and commercial clips created to promote the CITI-SENSE project.

4. Engagement initiatives.

Engagement initiatives include all type of activities initiated by the CITI-SENSE project partners in order to engage with interested parties.

Table of contents

EXECUTIVE SUMMARY	3
TABLE OF CONTENTS.....	4
LIST OF FIGURES	5
1 SCIENTIFIC PUBLICATIONS.....	6
2 EVENTS	8
2.1 SECOND CITIZENS OBSERVATORIES TECHNICAL WORKSHOP.....	15
2.2 FIRST OPEN CONFERENCE	15
3 PRESS AND MEDIA CAMPAIGN	17
4 ENGAGEMENT INITIATIVES	23

List of figures

Figure 1 <i>Networking with various city representatives and smart city experts Barcelona, September 2014.</i>	8
Figure 2 <i>S&C stand at the Mobile World Congress, Barcelona, March, 2015.</i>	9
Figure 3 <i>Children were competing regionally with research assignments related to CITI-SENSE project, Ljubljana, March 2015.</i>	9
Figure 4 <i>The poster prepared for the 9th Young researchers day, Ljubljana, April 2015.</i>	10
Figure 5 <i>The conference team, April 2015.</i>	10
Figure 6 <i>The awarded poster, Vienna, April 2015.</i>	11
Figure 7 <i>Student received best poster presentation, Eindhoven, May 2015.</i>	11
Figure 8 <i>A group of the INSPIRE-Geospatial World Forum participants getting informed about the sensors developed by ATEKNEA, Lisbon, May 2015.</i>	12
Figure 9 <i>The students after receiving their medals representing CITI-SENSE project, New York City, June 2015.</i>	12
Figure 10 <i>IOM informing cyclists at the Spokes' bike breakfast event, Edinburgh, June 2015.</i>	13
Figure 11 <i>Teachers participating in the workshop, Laško, August 2015.</i>	13
Figure 12 <i>Mobility Week, September 2015</i>	14
Figure 13 <i>Researchers Night, Ljubljana, Slovenia, September 2015.</i>	14
Figure 14 <i>1st Citizen's observatory open conference, Brussels, December 2014.</i>	16
Figure 15 <i>Screen shots of the local CITI-SENSE websites, September 2015.</i>	17
Figure 16 <i>CITI-SENSE Ljubljana Facebook group, September 2015.</i>	18
Figure 17 <i>Barcelona Citizens' Observatory Facebook group, September 2015.</i>	18
Figure 18 <i>Oslo Citizens' Observatory Facebook group, September 2015.</i>	18
Figure 19 <i>CITI-SENSE Barcelona twitter group, September 2015.</i>	19
Figure 20 <i>Citizens' Observatories Facebook group, September 2015.</i>	19
Figure 21 <i>CITI-SENSE Ostrava Facebook group, September 2015.</i>	19
Figure 22 <i>Article display in AstmaAllergi January 2015.</i>	20
Figure 23 <i>A website display developed by ATEKNEA for sensors, March 2015.</i>	21
Figure 24 <i>Article display in Citizens Science Project Catalog for Barcelona, May 2015.</i>	21
Figure 25 <i>Article display in AstmaAllergi March 2015.</i>	22
Figure 26 <i>JSI presenting the CITI-SENSE project at local authorities, Ljubljana, November 2014.</i>	23
Figure 27 <i>Researchers night, Ljubljana, December 2014.</i>	23
Figure 28 <i>Students' presentation to local authorities, Ljubljana, March 2015.</i>	23
Figure 29 <i>JSI open day event, Ljubljana, March 2015.</i>	24
Figure 30 <i>Students made biscuits, raising awareness for the CITI-SENSE project and air pollution among citizens, Ljubljana, March 2015.</i>	24
Figure 31 <i>Students measuring particular matter inside and outside their school.</i>	24
Figure 32 <i>CITI-SENSE student conference at Lørenskog videregående skole, Oslo, April 2015.</i>	25
Figure 33 <i>Students drawing balloons and offering them to the citizens informing them for air pollution issues, Ljubljana, March 2015.</i>	25
Figure 34 <i>Exhibition posters, Ljubljana, April 2015.</i>	26
Figure 35 <i>During workshop regarding the use of the air quality sensors Ljubljana, April 2015.</i>	26
Figure 36 <i>Posters placed outside of High school, Ljubljana, April 2015.</i>	26
Figure 37 <i>Nature day event organised by JSI, Ljubljana June 2015.</i>	27
Figure 38 <i>Nature day event organised by JSI, Ljubljana June 2015.</i>	27
Figure 39 <i>Air pollution event on the last day of school, Haifa June 2015.</i>	28
Figure 40 <i>Meeting with the Mayor of Ljubljana, September 2015.</i>	28

1 Scientific Publications

1. A conceptual approach to a citizens' observatory – Supporting community-based environmental governance; Authors: Liu H. - Y., Kobernus M., Bartonova A.; Published to Environmental Health 2014 13:107; doi:10.1186/1476-069X-13-107 Access at: <http://www.ehjournal.net/content/13/1/107>.
2. Urban air quality monitoring - insights from the CITI-SENSE project. Authors: Kocman D., Robinson J., Smolnikar M., Mohorčič M., Horvat M.; Published to: Book of abstracts MMC 2014, International workshop on Metrology for Meteorology and Climate, September 15-18, 2014, Brdo, Slovenia; Access at: <http://www.mmc-2014.org/images/documents/MMC2014-BoA.pdf>.
3. On the feasibility of measuring air pollution at dense urban areas by wireless distributed sensor networks; Authors: Moltchanov S., Levy I., Etzion Y., Lerner U., Broday D.M., Fishbain B.; Published to: Science of the Total Environment January 2015, 502:537–547; doi:10.1016/j.scitotenv.2014.09.059 Access at: <http://www.sciencedirect.com/science/article/pii/S0048969714013813>.
4. Environmental Information Systems and Services - Infrastructures and Platforms 2013. Proceedings of the Workshop "Environmental Information Systems and Services - Infrastructures and Platforms with Citizens Observatories, Linked Open Data and SEIS/SDI Best Practices"; Editors: Berre A. J. and Schade S., Published to CEUR Proceeding Vol 1322, January 2015; Access at: <http://ceur-ws.org/Vol-1322>
5. Modeling airborne benzo(a)pyrene concentrations in the Czech Republic; Authors: Zalel A., Yuval, Svecova V., Sram R.J., Bartonova A., Broday D.M.; Published to: Atmospheric Environment January 2015, 101:166-176; doi:10.1016/j.atmosenv.2014.11.031 Access at: <http://www.sciencedirect.com/science/article/pii/S1352231014008966>.
6. Towards a personalized environmental health information service using low-cost sensors and crowdsourcing; Authors: Castell N., Liu H.-Y., Schneider P., Cole-Hunter T., Lahoz W., Bartonova A. (2015); Published to: Geophys. Res. Abstract, 17, EGU2015-9058, March 2015; Access at: <http://adsabs.harvard.edu/abs/2015EGUGA..17.9058C>.
7. Making sense of crowdsourced observations: Data fusion techniques for real-time mapping of urban air quality; Authors: Schneider P., Castell N., Vogt M., Lahoz W., Bartonova A.; Published on: Geophys. Res. Abstract, 17, EGU2015-4556, April 2015; Access at: <http://adsabs.harvard.edu/abs/2015EGUGA..17.3503S>.
8. Collaborative approach in air quality monitoring at schools: a case study of ongoing activities in Vič high school, Ljubljana. Authors: Robinson J., Babnik A., Junger G., Pušlar N., Uran M., Hirci N., Klopčič V., Kovač R., Justin M., Koderman Z. P., Drobnič V., Kolarič M., Mozer A., Kocman D., Horvat M. (JSI and Vič High school); Published in book of abstracts in 9th Young researchers' day, April 7, 2015, Ljubljana; Access at: <http://www.worldcat.org/title/collaborative-approach-in-air-quality-monitoring-at-schools-a-case-study-of-ongoing-activities-in-vic-high-school-ljubljana/oclc/911551147>
9. Portable air quality sensor unit for participatory monitoring. Authors: Vučnik M., Robinson J., Smolnikar M., Kocman D., Horvat M., Mihael Mohorčič M.; Published to: Geophysical research abstracts from European Geosciences Union, General Assembly 2015, Vienna, Austria, 12 -17 April 2015, ISSN 1607-7962, vol. 17, München: European Geosciences Union, 2015; Access at: <http://meetingorganizer.copernicus.org/EGU2015/EGU2015-450.pdf>.

10. Empowering students to improve their indoor school environment with the help of low-cost air quality sensors - CITI-SENSE project. Authors: Robinson J, Holøs S, Kåstad Høiskar B.-A., Kocman D., Crawford J., Keune H., Jovanović-Stojanović M., Bartonova A., Horvat M. (JSI, SINTEF, NILU, IOM, INBO, VINCA); Published to: Healthy buildings Europe 2015: conference proceedings: 18-20 May 2015, Eindhoven, The Netherlands; Access at: https://hb2015europe.files.wordpress.com/2015/06/proceedings_content_withoutabstract.pdf.
11. Estimating personal exposure to air pollution - can wearable low-cost sensors help? Authors: Castell N., Liu H.-Y., Schneider P., Lahoz W., Bartonova A.; Published on: Book of abstracts. 12th Urban Environment Symposium, 1-3 June 2015, Oslo, Norway. Gothenburg/Oslo, 12UES s. 32.
12. Master Thesis "Empowerment Initiative in Air Quality". Author: Johanna Robinson, Jožef Stefan International Postgraduate School, Ljubljana, Slovenia; 11 September 2015.
13. Public participation in air quality monitoring. Authors: Robinson J., Kocman D., Kotic D., Horvat M.; Published on: book of abstracts, of the 18th International Symposium on Environmental Pollution and its Impact on Life in the Mediterranean Region, 26-30 September 2015, Crete, Greece; Access at: http://www.mesaep.org/fileadmin/MESAEP/PDF/2015/Book_of_abstracts-Crete.pdf.

2 Events

1. PRBB open day, activity: "Barcelona: Physical exercise and the air we breathe (Barcelona: Actividad Física Y El Aire Que Respiramos)" (http://www.prbb.org/system/uploads/attachment/file/8/ca/OpenDay_Programa_ma_A4_2014_DEF.pdf); Barcelona (Spain); 04/10/2014; Attending partners: CREAL; Targeted audience: civil society, scientific community; Contribution: oral presentation.
2. ThinkTank Ostravian sky workshop of the NGO Ciste nebe "Risks of air pollutants on public health in Ostrava"; Ostrava (Czech Republic); 16/10/2014; Attending partners: IEM; Targeted audience: scientific community, civil society, policy makers, media; Contribution: oral presentation.
3. ISEE-EUROPE 2014: Young Researchers Conference on Environmental Epidemiology "Personal exposure to PM2.5, PAHs and BC in Ostrava, Czech Republic" (<http://www.creal.cat/isee-europe/>); Barcelona (Spain); 20-21/10/2014; Attending partners: IEM; Targeted audience: scientific community; Contribution: Poster presentation.
4. Smart City Expo (<http://www.smartcityexpo.com/>); Barcelona (Spain); 18-20/11/2014; Attending partners: CREAL, S&C; Targeted audience: scientific community, civil society; Contribution: oral presentation (CREAL), flyer distribution (S&C).



Figure 1 Networking with various city representatives and smart city experts Barcelona, September 2014.

5. Air pollution in 2014 and its impact on public health, workshop for public at Academy of Sciences. "CITI-SENSE project and sensor technology"; Prague (Czech Republic); 19/10/2014; Attending partners: IEM; Targeted audience: scientific community, civil society, policy makers, media; Contribution: oral presentation.
6. Citizens' Observatories: powered by citizen science (<https://www.youtube.com/watch?v=Rf1n7GWYl8w&feature=youtu.be>); Barcelona (Spain); 21/11/2014; Attending partners: CREAL; Targeted audience: scientific community; Contribution: oral presentation.
7. 3rd International Action Workshop of COST Action TD1105 EuNetAir; Istanbul (Turkey); 03/12/2014; Attending partners: NILU; Targeted audience: scientific community; Contribution: oral presentation.

8. American Association for the Advancement of Science AAAS Annual Meeting; San Jose (United States of America); 12-16/02/2015; Attending Partners: NILU; Targeted audience: scientific community; Contribution: oral presentation.
9. Mobile World Congress (<http://www.mobileworldcongress.com/>); Barcelona (Spain); 02-05/03/2015; Attending partners: S&C; Targeted audience: scientific community, industry; Contribution: flyer distribution.



Figure 2 S&C stand at the Mobile World Congress, Barcelona, March, 2015.

10. European Open Geospatial meeting; Barcelona (Spain); 9-13/03/2015; Partners: SINTEF; Targeted audience: scientific community; Contribution: flyers distribution.
11. 8th Workshop on Research, Action and Expertise, City and climate: at the crossroads of research, action and participation; Toulouse (France); 13/03/2015; Partners: TECNALIA; Targeted audience: scientific community; Contribution: flyers distribution.
12. 3rd International Action Workshop of COST Action TD1105 EuNetAir “Making visible the invisible: communicating air quality” and “Towards personal exposure estimates using low-cost air quality sensors and data fusion techniques”; Riga (Latvia); 26-27 March 2015; Partners: NILU; Targeted audience: scientific community; Contribution: oral presentation.
13. 28th meeting of Young researchers; Ljubljana (Slovenia); 27/03/2015; Attending partners: JSI; Targeted audience: civil society; Contribution: oral presentation.



Figure 3 Children were competing regionally with research assignments related to CITI-SENSE project, Ljubljana, March 2015.

14. 9th Young researchers' day; Ljubljana (Slovenia); 07/04/2015; Attending partners: JSI; Targeted audience: scientific community; Contribution: poster presentation.



Figure 4 The poster prepared for the 9th Young researchers day, Ljubljana, April 2015.

15. Recent advances in Internet of Things conference (RIoT) (<http://icriot.org/>); Singapore; 7-9/04/2015; Attending partners: DNET; Targeted audience: scientific community, industry; Contribution: oral presentation.
16. The CITI-SENSE student conference, Lørenskog Videregående skole outside Oslo 9 April 2015. Attending partners: NILU; Targeted audience: students and civil society; Contribution: oral presentations and organisation.



Figure 5 The conference team, April 2015.

17. European Geosciences Union General Assembly 2015 (<http://www.egu2015.eu/>); Vienna (Austria); 12-17/04/2015; Attending partners: JSI, NILU; Targeted audience: scientific community, citizen associations, municipalities, policy makers; Contribution: poster presentation (JSI), oral presentation (NILU).



Figure 6 The awarded poster, Vienna, April 2015.

18. Barcelona Citizen Science day; Barcelona (Spain); 16/04/2015; Attending partners: CREAL; Targeted audience: civil society, scientific community; Contribution: oral presentation.
19. KAGIS Spring Conference 2015; Daegu (South Korea); 16-17/04/2015; Attending partners: KICT; Targeted audience: scientific community; Contribution: poster presentation.
20. Presentation on Festival Evolution BIOSTYL (<http://www.festivalevolution.cz/en>); Prague (Czech Republic); 17-19/4/2015; Attending partners: IEM; Targeted audience: civil society, policy makers, media; Contribution: oral presentation.
21. TD1202 COST Action meeting “Lessons learnt from Citi-Sense”; Nice (France); 23-24/04/2015; Attending Partners: NILU; Targeted audience: scientific community; Contribution: oral presentation.
22. Barcelona science, technology and innovation festival (<http://lameva.barcelona.cat/novum/en/>); Barcelona (Spain); 25-26/04/2015; Attending partners: CREAL; Targeted audience: scientific community, civil society; Contribution: exhibition.
23. Nature & Urban Wellbeing (Nature based solutions) conference “Citizen observatories engagement and empowerment: Social science perspectives” (<http://www.alternet.info/outputs/conf-2015/presentations/3-4/hans-keune/view>), Ghent (Belgium), 19-20/05/2015; Partners: INBO; Targeted audience: Scientific community, policy makers; Contribution: oral presentation.
24. Healthy Buildings Europe 2015 conference (<http://hb2015-europe.org/>); Eindhoven (The Netherlands); 18-20/05/2015; Attending partners: JSI, SINTEF; Targeted audience: scientific community; Contribution: oral and poster presentation (JSI), oral presentation (SINTEF).



Figure 7 Student received best poster presentation, Eindhoven, May 2015.

25. International Conference for E-Democracy and open Government 2015 (CeDEM15); Krems (Germany); 20-22/05/2015; Attending partners: IBATUZ; Targeted audience: scientific community; Contribution: flyers distribution.
26. KAIS Spring Conference 2015; Jeongsun(South Korea); 22-23/05/2015; Attending partners: KICT; Targeted audience: scientific community; Contribution: poster presentation.
27. Seminar to Meteo-France staff; Toulouse (France); 26/05/2015; Attending Partners: NILU; Targeted audience: scientific community, weather forecasting/air quality community; Contribution: oral presentation.
28. INSPIRE - Geospatial World Forum 2015 (<http://www.geospatialworldforum.org/>) - and also ENVIP Citizens observatory and crowd sourcing workshop; Lisbon (Portugal); 25-29/05/2015; Attending partners: ATEKNEA, SINTEF; Targeted audience: scientific community, industry; Contribution: exhibition and oral presentation (ATEKNEA), workshop organization and two oral presentations (SINTEF).



Figure 8 A group of the INSPIRE-Geospatial World Forum participants getting informed about the sensors developed by ATEKNEA, Lisbon, May 2015.

29. 12th Urban Environment Symposium (<http://hues.se/>); Oslo (Norway); 1-3/06/2015; Attending Partners: NILU; Targeted audience: scientific community; Contribution: oral presentation.
30. Genius Olympiad at State University of New York; New York City (United States of America); 14-19/06/2015; Attending partners: JSI; Targeted audience: scientific community; Contribution: oral presentation.



Figure 9 The students after receiving their medals representing CITI-SENSE project, New York City, June 2015.

31. 9th GEO European Projects Workshop (<http://geo.pbe.eea.europa.eu/>); Copenhagen (Denmark); 15-16/06/2015; Partners: SINTEF; Targeted audience: scientific community; Contribution: oral presentation and poster.
32. Spokes' bike breakfast, Edinburgh festival of cycling; Edinburgh (United Kingdom); 17/06/2015; Attending partners: IOM; Targeted audience: civil society, cyclists; Contribution: Exhibition stand: flyers distribution, poster, sign-up sheet for further information.



Figure 10 IOM informing cyclists at the Spokes' bike breakfast event, Edinburgh, June 2015.

33. Public awareness of Research Infrastructures; Garching (Germany); 18-19/06/2015; Attending Partners: NILU; Targeted audience: scientific community; Contribution: oral presentation.
34. International Union of Geodesy and Geophysics, IUGG 2015 (<http://www.iugg2015prague.com/>); Prague (Czech Republic); 01/07/2015; Partners: NILU; Targeted audience: scientific community; Contribution: oral presentation.
35. European Conference on Networks and Communications (<http://www.eucnc.eu/>); Paris (France); 29/06-02/07/2015; Partners: Technion; Targeted audience: scientific community; Contribution: flyers distribution.
36. Scientix - 3rd conference of science teachers; Laško (Slovenia); 21/08/2015; Partners: JSI; Targeted audience: teachers; Contribution: workshop.



Figure 11 Teachers participating in the workshop, Laško, August 2015.

37. ENVIP workshop at EnviroInfo'2015 and ICT4Sustainability'2015 (<http://enviroinfo2015.org/programme/workshops/envip2015/>); Copenhagen (Denmark); 09/09/2015; Partners: SINTEF; Targeted audience: scientific community; Contribution: Organization of workshop and oral presentation.

38. Mobility Week - Seminar a city without cars, Cinema movie: "Bike vs cars", seminar Green mobility, Oslo (Norway); 20-21/09/2015; Partners: NILU; Targeted audience: civil society; Contribution: stand with promotional material, exhibition and oral presentations.



Figure 12 Mobility Week, September 2015

39. 18th International Symposium on Environmental Pollution and its Impact on Life in the Mediterranean Region <http://www.mesaep.org/> Crete (Greece); 26-30/09/2015; Partners; JSI; Target audience: scientific community; Contribution: presentation.

40. Researchers Night Public event, Ljubljana (Slovenia); 25/09/2015; Partners: JSI; Targeted audience: civil society: Contribution: stand with promotional material.



Figure 13 Researchers Night, Ljubljana, Slovenia, September 2015.

41. Participation in the Breakfast Scientific Seminar; 30/09/2015; Partners: NILU; Targeted audience: scientific community, authorities, interest groups; Contribution: oral presentation and stand with promotional material.

2.1 Second Citizens Observatories Technical Workshop

On 3rd of December 2014, the European Commission's Directorate-General for Research and Innovation and the European Union - funded Citizens' Observatories projects organised the 2nd Citizens' Observatories Technical Workshop, held at the European Commission's facilities in Brussels. The main goal of this workshop was to share and discuss the progress made by each project in the first two years of work. Two parallel sessions were organised to analyse the differences and commonalities in the approaches followed by the projects in the domains of data management (including data curation, data privacy and GEOSS interoperability) and citizens' engagement strategies (especially in the pilot areas covered by the projects). A final round table explored a number of aspects for cross-project collaboration such as standardisation, best practices, sustainability strategies or business models of the Citizens Observatories. More than 60 people from the five Consortia and the European Commission attended this workshop, which was organised on the eve of the Citizens Observatories – Empowering European Society Conference, in order to benefit from the presence of the five Consortia in Brussels and discuss and clarify issues of common interest. This was a follow up to the 1st Technical Workshop of Citizens' Observatories organised on 29th and 30th January 2013.

Attending partners: NILU, PVDH, IOM, S&C, U-Hopper, CREAL, IEM, VINCA, JSI, SINTEF, TECNALIA, KICT, ATEKNEA, INBO and Saltux; Contribution: oral presentations and workshop.

2.2 First Open Conference

The conference "Citizens Observatories: Empowering European Society", organised on 4th December 2014 in Brussels, had as its main objective to raise awareness about the Citizens' Observatories concept and present the first outcomes of the five projects after two years of work. Two of them have already been finished (OMNISCIENTIS and Citclops) while the other three (CITI-SENSE, WeSenseIt and COBWEB) are now in their last year. At that time, all of them were ready to show their progress and share their experiences with a wider audience. The conference aimed at setting the scene and providing a forum for discussion about the role and opportunities for active citizen participation in environmental monitoring and policy making. The event provided opportunities to engage with experts and practitioners working across a range of European citizen science initiatives and policy making bodies, with two round tables addressing the concept of Citizens' Observatories from a strategic as well as from a technical point of view.

The event was opened by Mr Kurt Vandenberghe, Director of Climate Action and Resource Efficiency in DG Research and Innovation of the European Commission. The welcome was followed by flash presentations of each Citizens' Observatory by the project coordinators. They set the scene, presented their objectives and the progress and shared their success stories. A high-level round table took place with speakers coming from the Irish and Scottish Environmental Protection Agencies, the European Environment Agency, the European Commission, the Dutch and Welsh Governments, the Alto-Adriatico Water Authority in Italy and a federation of environmental NGO's from Wallonia in Belgium. Panellists discussed issues such as the validity of the Citizens' Observatories concept for environmental policy making, its added value and eventual drawbacks, the maturity of these initiatives and their sustainability. The afternoon included a session which covered a number of European citizen science activities related to citizens' observatories, such as those carried out by the European Environment Agency or the European Citizen Science Association (ECSA). A second round table included representatives from the citizens' observatories projects and also external experts in Citizen Science explored the technical and social challenges of these activities. The sustainability of citizen engagement over time, the ownership of the data collected by citizens or data preservation were some of the questions that were posed to the panellists. The conference was concluded by Mr Andrea Tilche, Head

of Unit of Climate Actions and Earth Observation in DG Research and Innovation of the European Commission, who briefly summarised the event and provided some ideas on the way forward.

More than 200 people registered for the event with attendees from academia, public administration, industry and citizens associations, from within the consortia and outside. In order to give the attendees the possibility of learning more about the projects, a small exhibition was setup on the lobby of the venue, where the five teams presented posters and gave demonstrations during the breaks. The event was also well covered by the social media.

This conference has shown that Citizens' Observatories have a great potential to complement in-situ observation networks with novel Earth observations and ICT techniques, involving citizens in environmental monitoring using their own portable devices or do-it-yourself sensors. Thanks to the vast array of ubiquitous information and data they can provide, Citizens' Observatories can allow authorities to obtain evidence and inform policy making, while providing citizens with opportunities to address environmental issues affecting them at different scales and to influence decision making.

Attending partners: NILU, PVDH, IOM, S&C, U-Hopper, CREAL, IEM, VINCA, JSI, SINTEF, TECNALIA, KICT, ATEKNEA, INBO and Saltux; Targeted audience: scientific community; Contribution: oral presentations, workshops and exhibition.



Figure 14 1st Citizen's observatory open conference, Brussels, December 2014.

3 Press and Media campaign

1. Website development; early 2014; Partners involved: JSI, NILU, SINTEF; Targeted public: general public; Visibility level: worldwide

- barcelona.citi-sense.eu
- vitoria.citi-sense.eu
- belgrade.citi-sense.eu
- social.citi-sense.eu and co.citi-sense.eu
- citizen-obs.eu
- edinburgh.citi-sense.eu (log-in required)
- ljubljana.citi-sense.eu
- oslo.citi-sense.eu
- ostrava.citi-sense.eu and <http://ostrava2.nilu.no/>
- horten.citi-sense.eu
- ves.citi-sense.eu
- vic.citi-sense.eu
- vienna.citi-sense.eu
- <http://schools.citi-sense.eu/en-us/home.aspx>

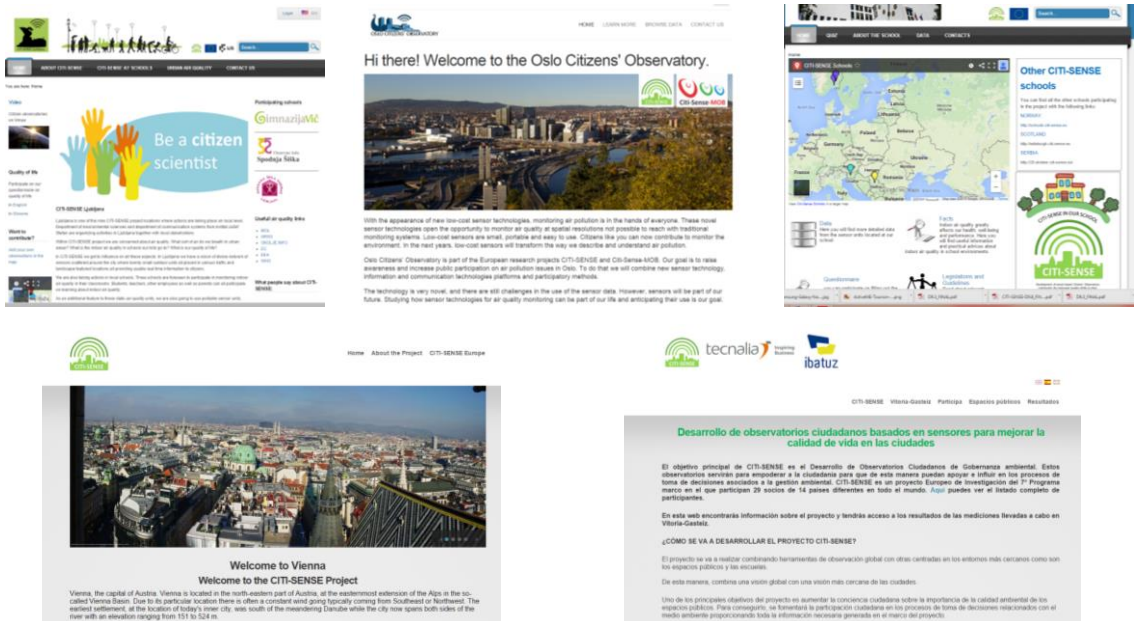


Figure 15 Screen shots of the local CITI-SENSE websites, September 2015.

2. Facebook group “CITI-SENSE Ljubljana” (<https://www.facebook.com/CitiSenseLjubljana?ref=hl>); early 2014; Partners involved: JSI; Targeted public: general public; Visibility level: worldwide (72 likes).



Figure 16 CITI-SENSE Ljubljana Facebook group, September 2015.

- Facebook group “Barcelona Citizens’ Observatory” (<https://www.facebook.com/BarcelonaCitObs>); early 2014; Partners involved: CREAL; Targeted public: general public; Visibility level: worldwide (66 likes).



Figure 17 Barcelona Citizens’ Observatory Facebook group, September 2015.

- Facebook group “Oslo Citizens’ Observatory” (<https://www.facebook.com/oslocitizenobservatory>); 2014; Partners involved: NILU; Targeted public: general public; Visibility level: worldwide (98 likes).



Figure 18 Oslo Citizens’ Observatory Facebook group, September 2015.

8. LinkedIn group on Citizens' Observatories (http://www.linkedin.com/groups/Citizens-observatories-5164755?trk=my_groups-b-grp-v); Partners involved: NILU; Targeted audience: restricted target groups (EC, sister projects, GEOSS experts); Visibility level: worldwide (56 members).
9. Website article "CITI-SENSE - Development of sensor-based Citizens' Observatory Community for air pollution measurement and exposure estimation" (<http://tceeh.technion.ac.il/CITI-SENSE-Development-of-sensor-based-Citizens%E2%80%99-Observatory-Community-for-air-pollution-measurement-and-exposure-estimation-in-the-urban-environment>); 2014; Partners involved: Technion; Targeted audience: civil society, scientific community, media; Visibility level: worldwide.
10. Interview for the Norwegian public TV (NRK) in the program "Schrodinger's cat"; 16/01/2015; Partners involved: NILU; Targeted public: general public; Visibility level: prime time. <http://www.nrk.no/viten/slik-unngar-du-skader-fra-lufta-du-puster-1.12151864>
11. Article in "AstmaAllergi" about CITI-SENSE and the school case study. The paper is distributed to all the members (15,000 persons) of the Norwegian Asthma and Allergy Association; 01/2015; Partners involved: NILU; Targeted audience: scientific community, civil society; Visibility level: worldwide.



Figure 22 Article display in AstmaAllergi January 2015.

12. Website article "The quality of the air will be questioned by Citizens' Observatories in Barcelona"; 09/03/2015; Partners involved: CREAL; Targeted public: civil society, scientific community, media; Visibility level: worldwide.
13. Website and application (<http://citisense.ateknea.com/aircitisensing/technicalspecifications>); 10/03/2015; Partners involved: ATEKNEA; Targeted public: scientific community, media; Visibility level: worldwide.

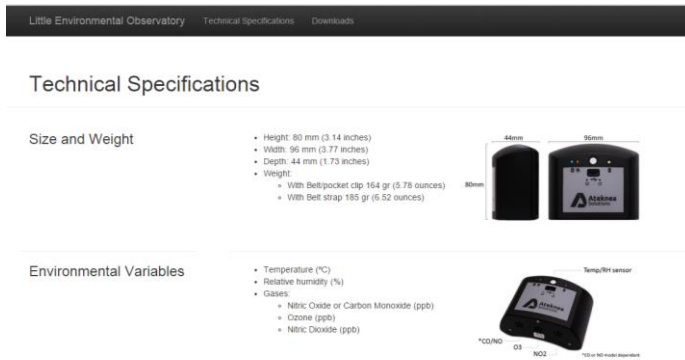


Figure 23 A website display developed by ATEKNEA for sensors, March 2015.

14. Interview for the television of Catalonia channel TV3 “Els Matins” (<http://www.ccma.cat/tv3/alacarta/els-matins/es-busquen-voluntaris-per-a-un-estudi-sobre-la-qualitat-de-laire-a-barcelona/video/5482217/>); 11/03/2015; Partners involved: CREAL; Targeted public: civil society in Spain; Visibility level: 100,000 people on average.
15. Press release Ciència Ciutadana (<http://www.barcelonalab.cat/ca/noticies/barcelona-te-seu-cataleg-ciencia-ciutadana/>); 05/05/2015; Partners involved: CREAL; Targeted public: civil society in Spain and scientific community.

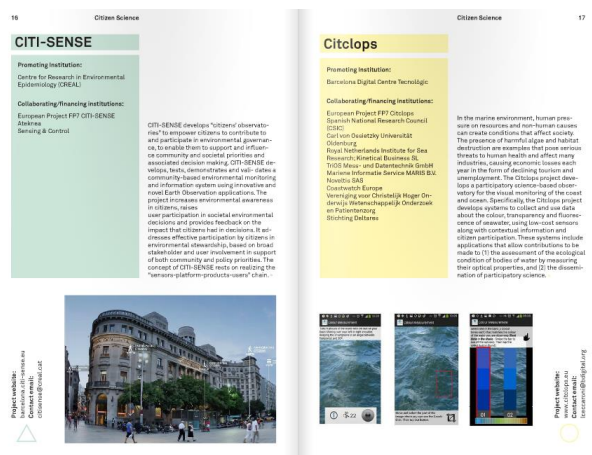


Figure 24 Article display in Citizens Science Project Catalog for Barcelona, May 2015.

16. TV clip for the television of Catalonia channel TV3 comarcal “Sensors on the balconies of Barcelona residents to measure pollution (Sensors als balcons dels veïns de Barcelona per mesurar la contaminació)” (<http://www.ccma.cat/tv3/alacarta/telenoticies-comarques/sensors-als-balcons-dels-veïns-de-barcelona-per-mesurar-la-contaminacio/video/5534108/>); 19/06/2015; Partners involved: CREAL; Targeted public: civil society in Spain; Visibility level: 200,000 people on average.
17. Article in “AstmaAllergi” about CITI-SENSE and the school case study. The paper is distributed to all the members (15000 persons) of the Norwegian Asthma and Allergy Association; 03/2015; Partners involved: NILU; Targeted audience: scientific community, civil society; Visibility level: worldwide.



Figure 25 Article display in *AstmaAllergi* March 2015.

18. Article published on newspapers and online newspapers for the achievement of the Gimnazija Vič high school and their achievements at the Genius Olympiad, (<http://www.delo.si/novice/okolje/viski-dijaki-dejavno-prispevajo-k-trajnostni-rasti.html>, <http://4d.rtvsllo.si/arhiv/prispevki-in-izjave-odmevi/174343342>, <http://www.planet.si/novice/slovenija/slovenski-dijaki-izjemno-uspesni-na-mednarodni-olimpijadi-genius-2015.html>, <http://www.startaj.si/8824223/Vi%C5%A1ki-gimnazijci-z-olimpijade-v-ZDA-domov-pri%C5%A1li-kot-drugi-najbolj%C5%A1i-na-svetu>, <https://www.sta.si/2149635/viski-gimnazijci-v-svetovnem-vrhu-na-letosnji-olimpijadi-genius>, <http://www.domzale.si/s1a6019/medijsko-sredisce/izjemna-dosezka-jureta-miklavcica-in-vida-klopcica-na-mednarodni-srednjescolski-olimpijadi-genijev-v-zda.html>); 24/06/2015 and onwards; Partners involved: JSI; Targeted public: general public; Visibility level: Slovenia.
19. Interview for the Czech television “Nové měření kvality ovzduší ve Vratimove, Radvanicích a Bartovicích”, New measurement of air quality in Vratimov, Radvanice and Bartovice (<http://www.ceskatelevize.cz/porady/10122978233-udalosti-v-regionech-ostrava/415231100030831-udalosti-v-regionech>); 31/08/2015; Partners involved: IEM, Targeted public: civil society in Czech Republic.
20. Interview for the Czech television “Nové měření kvality ovzduší ve Vratimove, Radvanicích a Bartovicích”, New measurement of air quality in Vratimov, Radvanice and Bartovice (<http://www.ceskatelevize.cz/porady/10122978233-udalosti-v-regionech-ostrava/415231100030827-udalosti-v-regionech>); 27/08/2015; Partners involved: IEM, Targeted public: civil society in Czech Republic.
21. Interview in the Czech Radio Ostrava “Desítky lidí z Ostravska se dnes dobrovolně stanou pokusnými králíky”, Forty people from Ostrava are now voluntarily become a guinea pigs; http://www.rozhlas.cz/ostrava/aktualne/_zprava/desitky-lidi-z-ostravska-se-dnes-dobrovolne-stanou-pokusnymi-kraliky--1528808; 03/09/2015; Partners involved: IEM; Targeted public: civil society in Czech Republic.
22. Article in NILU website “What do you think about the air quality in Oslo?” (<http://www.nilu.no/Nyhetsarkiv/tabid/74/NewsId/725/Hva-synes-du-om-luftkvaliteten-i-Oslo.aspx>); 17/09/2015; Partners involved: NILU; Targeted public: scientific community, civil society.
23. Survey promotion using the NILU’s mailing list; 28/09/2015; Partners involved: NILU; Targeted public: scientific community.

4 Engagement initiatives

1. Presentation of CITI-SENSE project to local authorities; Participants: JSI and policy makers; Location: Ljubljana (Slovenia); 19/11/2014.



Figure 26 JSI presenting the CITI-SENSE project at local authorities, Ljubljana, November 2014.

2. Researchers' night, an educational event for students and citizens; Participants: JSI and civil society; Location: Ljubljana (Slovenia); 02/12/2014.



Figure 27 Researchers night, Ljubljana, December 2014.

3. Presentation of Vič high school students to the head of the environmental protection department from the municipality of Ljubljana, Nataša Jazbinšek Seršen. The students introduce the ongoing activities in their school within the CITI-SENSE project; Participants: JSI, Vič high school and the municipality of Ljubljana; Location: Ljubljana (Slovenia); 17/03/2015.



Figure 28 Students' presentation to local authorities, Ljubljana, March 2015.

4. JSI open day event; Participants: JSI and civil society; Location: Ljubljana (Slovenia); 28/03/2015.



Figure 29 JSI open day event, Ljubljana, March 2015.

5. Baking day, 20 students from Vič high school baked biscuits with air quality messages in order to raise awareness to the citizens; Participants: JSI, high school students and civil society; Location: Ljubljana (Slovenia); 31/03/2015.



Figure 30 Students made biscuits, raising awareness for the CITI-SENSE project and air pollution among citizens, Ljubljana, March 2015.

6. Lectures and measurement campaign at the three schools (Lambertseter videregående skole, Lørenskog videregående skole, Horten videregående skole); Participants: NILU and students; Location: Oslo (Norway); Jan.-Mar. 2015.



Figure 31 Students measuring particular matter inside and outside their school

7. The CITI-SENSE student conference was held at Lørenskog Videregående skole outside Oslo. Students from three schools presented their science projects during a poster session, the best posters were rewarded; Participants: NILU and approx. 90 students; Location: Oslo (Norway); 09/04/2015.



Figure 32 CITI-SENSE student conference at Lørenskog videregående skole, Oslo, April 2015.

8. Bike and Balloon street event, high school students informed a wider public about air quality issues; Participants: JSI, high school students and civil society; Location: Ljubljana (Slovenia); 04/04/2015.



Figure 33 Students drawing balloons and offering them to the citizens informing them for air pollution issues, Ljubljana, March 2015.

9. Open day event, A local primary school invited JSI to organize activities at their event; Participants: JSI and primary school; Location: Ljubljana (Slovenia); 11/04/2015.

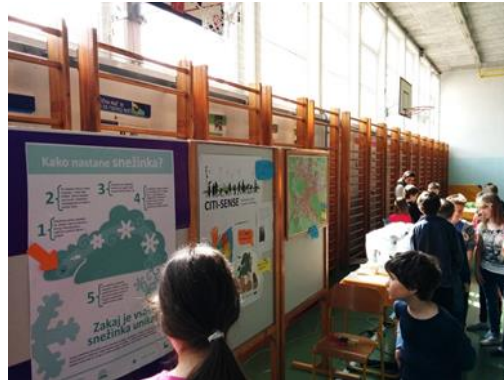


Figure 34 Exhibition posters, Ljubljana, April 2015.

10. Earth day action, 40 high school students got portable air quality sensors to take home. A workshop was organized to teach how to use the devices Participants: JSI and high school students; Location: Ljubljana (Slovenia); 20/04/2015.



Figure 35 During workshop regarding the use of the air quality sensors Ljubljana, April 2015.

11. Posters installation outside of school for informing the citizens on air pollution topics; Participants: JSI and high school students; Location: Ljubljana (Slovenia); since 22/04/2015.



Figure 36 Posters placed outside of High school, Ljubljana, April 2015.

12. Nature day, an outdoor event where some 30 children got involved in air quality workshops; Participants: JSI and 1st grade students of a primary school; Location: Ljubljana (Slovenia); 04/06/2015.



Figure 37 Nature day event organised by JSI, Ljubljana June 2015.

13. Nature day, an outdoor event where some 30 children got involved in air quality workshops; Participants: JSI and 3rd grade students of a primary school; Location: Ljubljana (Slovenia); 08/06/2015.



Figure 38 Nature day event organised by JSI, Ljubljana June 2015.

14. Presentation of CITI-SENSE project to Council for Environment of the Municipal Board/local authority of Ostrava Radvanice and Bartovice; Participants: IEM and policy makers; Location: Ostrava Radvanice (Czech Republic); 17-18/06/2015.
15. Presentation of CITI-SENSE and Haifa pilot to 50 peoples from Environmental Engineering class at Technion; Participants: Technion and scientific community; Location: Haifa (Israel); 24/06/2015.
16. Presentation of CITI-SENSE and Haifa pilot to entire staff of the largest hospital in Haifa (200 people); Participants: Technion and hospital staff; Location: Haifa (Israel); 25/06/2015
17. End of the year school event, Participants: Technion and local school; Location Haifa (Israel); 06/2015.



Figure 39 Air pollution event on the last day of school, Haifa June 2015.

18. Presentation of CITI-SENSE project to Council local authority of Ostrava Vratimov; Participants: IEM and policy makers; Location: Ostrava Radvanice (Czech Republic); 02/09/2015.
19. Engagement event on the street of Barcelona within the Park(ing) day event. Participants: CREAL and civil society; Location: Barcelona (Spain); 18/09/2015.
20. Students and teachers from the Ljubljana case study high school and JSI representatives met with the Mayor of Ljubljana; Participants: JSI, Students and Mayor; Location: Ljubljana (Slovenia); 22/09/2015.



Figure 40 Meeting with the Mayor of Ljubljana, September 2015.

21. Mail list to research institutes, authorities, interest groups, NGOs promoting the questionnaire; Participants: NILU; Location: Internet; 09/2015.
22. Distribution of flyers to libraries in Oslo for the promotion of CITI-SENSE activities; participants: NILU; Location: Oslo (Norway); 05/09/2015.
23. Posters in local businesses, flyers in public areas, adverts in local press; Participants: IOM; Location: Edinburgh (Scotland); Sep. 2015

