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Executive Summary

This deliverable presents the summary of all dissemination activities performed by the CITI-SENSE partners during the final year of the project from M37 to M48 and some activities planned for after the submission of the deliverable and the end of the project. The present report is a continuation of the *D9.11 Dissemination Report Year 1 &2* and the *D9.13 Dissemination report year 3* which comprise the summary of all the dissemination activities of the first three years of the project up to M36.

The dissemination activities aimed to inform and engage all interested parties, the EC, the scientific community, civil society, industry, citizens' associations, local authorities, students, teachers 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. More precisely, for the period in question CITI-SENSE consortium published 6 peer review articles (while more will be published after M48), 3 scientific reports and 18 publications 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. During the last year CITI-SENSE consortium attended 70 events with various dissemination activities such as oral presentations, posters, demos, exhibitions, flyer distribution, workshops etc.

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. Specifically, during this period 7 interviews were conducted for local and national news on radio and television, 20 articles were published on popular press, 1 press release and 3 advertisements in local newspapers and official websites

4. Engagement initiatives.

Engagement initiatives include all type of activities initiated by the CITI-SENSE project partners in order to engage with interested parties. This was achieved though continuous update of existing social media of the project and related ones, development of 3 project videos, the organization of 9 workshops, 2 webinars, open days from various organizations, and flyer distribution in local events and public spaces.

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1 Dissemination

1.1 Publications

- Alena Bartonova and CITI-SENSE consortium, 2015. CITI-SENSE: Citizens Observatory, COST Action TD1105-EuNetAir, Booklet from WG Meeting, Air Quality Monitoring and Calibration: Horizons in Sensing Technologies, Methods and Modelling, WGs Meeting, organized by VINCA Institute, Belgrade (Serbia), 13-14 October 2015, <u>http://www.eunetair.it/cost/meetings/docBelgrade/BOOKLET_Belgrade_EuNetAir-Meeting.pdf</u>, Presentation: http://www.eunetair.it/cost/meetings/20Presentations/T17_COST-TD1105_Workshop-Belgrade Bartonova.pdf.
- 2. Miloš Davidović, Dušan Topalović, Milena Jovašević-Stojanović, 2015. Use of European multicity model for creation of NO2 and PM2.5 base maps for elgrade, COST Action TD1105-EuNetAir, Booklet form WG Meeting Air Quality Monitoring and Calibration: Horizons in Sensing Technologies, Methods and Modelling WGs Meeting, organized by VINCA Institute, Belgrade (Serbia), 13-14 October 2015, http://www.eunetair.it/cost/meetings/docBelgrade/BOOKLET_Belgrade_EuNetAir-Meeting.pdf Presentation: http://www.eunetair.it/cost/meetings%20Presentations/T14_COST-TD1105_Workshop-Belgrade_Davidovic.pdf.
- 3. Dušan Topalović, Miloš Davidović, Milena Jovašević-Stojanović, 2015. Comparative Statistical Analysis of Multivariate Linear Regression Models for Calibration of Low Cost Sensors for Air Pollution Monitoring, COST Action TD1105-EuNetAir, Booklet form WG Meeting Air Quality Monitoring and Calibration: Horizons in Sensing Technologies, Methods and Modelling WGs Meeting, organized by VINCA Institute, Belgrade (Serbia), 13-14 October 2015. http://www.eunetair.it/cost/meetings/docBelgrade/BOOKLET_Belgrade_EuNetAir-Meeting.pdf, Presentation: http://www.eunetair.it/cost/meetings/Belgrade/01-PRESENTATIONS/01_Meetings%20Presentations/T13_COST-TD1105_Workshop-Belgrade_Topalovic_V2.pdf.
- Alena Bartonova et al., 2015. Communicating PM Pollution Issues for Decisions and The Public Some Experiences from Research Practice, Abstracts of keynote invited lectures and contributed papers from The 5th International WeBIOPATR Workshop & Conference, Particulate Matter: Research and Management, Belgrade (Serbia), 14-16 October, 2015. pp. 16, Public Health Institute of Belgrade ISBN- 978-86-83069-42-2.
- 5. Miloš. Davidović, Dušan Topalović, Philipp Schneider, Alena.Bartonova, Milena Jovašević-Stojanović, 2015. Land use regression for particulate matter mapping: data collection techniques, choice of predictor variables and possibilities for validation and improvement of maps, Abstracts of keynote invited lectures and contributed papers from The 5th International WeBIOPATR Workshop & Conference, Particulate Matter: Research and Management, Belgrade (Serbia), 14-16 October, 2015. pp. 49, Public Health Institute of Belgrade ISBN- 978-86-83069-42-2.
- 6. Milena Jovašević-Stojanović, Dušan Topalović, Alena Bartonova, Boriš Pokrić, Marija Živković, Ivan Lazović, Zoran Ristovski, 2015., An Example of Field Validation of a Citizen-Oriented Cheap Particle Matter Counter Collocated With Reference Instruments, Abstracts of keynote invited lectures and contributed papers from The 5th International WeBIOPATR Workshop & Conference, Particulate Matter: Research and Management, Belgrade (Serbia), 14-16 October, 2015. pp. 31, Oral Presentation, Public Health Institute of Belgrade ISBN- 978-86-83069-42-2.
- 7. Dušan Topalović, Zoran Ristovski, Miloš Davidović, Boris Pokrić, Milena Jovašević- Stojanović, Comparison of Multivariate Linear Regression and Artificial Neural Networks for Calibration of Low Cost Realtime Optical Particle Counter, Abstracts of keynote invited lectures and contributed papers from The 5th International WeBIOPATR Workshop & Conference, Particulate Matter: Research and Management, Belgrade (Serbia), 14-16 October, 2015. pp. 50, Public Health Institute of Belgrade ISBN- 978-86-83069-42-2.

- 8. Golumbic, Y.N. What Makes Citizen Science Projects Successful, and What Can We Learn from Them for Future Projects? Technion Citizen Science Project (TCSP) report. 2015, 1–56.
- 9. Sungchul Hong, Taehoon Kim, Junhee Youn, and Jeyoon Woo. Development and implementation of a GIS-based air-pollution warning services, using a context awareness model. Proceedings of the 36th Asian Conference on Remote Sensing, Manila (Philippines), 19-23 October, 2015.
- Milena Jovašević-Stojanović, Alena Bartonova, Dušan Topalović, Ivan Lazović, Boris Pokrić, Zoran Ristovski, On the use of small and cheaper sensors and devices for indicative citizen-based monitoring of respirable particulate matter, Environmental Pollution 206 (2015) 696-704 ,http://dx.doi.org/10.1016/j.envpol.2015.08.035
- 11. Shai Moshenberg, Uri Lerner and Barak Fishbain. Spectral methods for imputation of missing air quality data. Environmental Systems Research, December 2015 4:26, DOI: 10.1186/s40068-015-0052-z. https://environmentalsystemsresearch.springeropen.com/articles/10.1186/s40068-015-0052-z.
- 12. Uri Lerner, Tamar Yacobi, Ilan Levy, Sharon Moltchanov, Tom Cole-Hunter and Barak Fishbain. The effect of ego-motion on environmental monitoring. Science of The Total Environment, November 2015, 533:8–16, doi: 10.1016/j.scitotenv.2015.06.066. http://www.ncbi.nlm.nih.gov/pubmed/26150302.
- Aspuru Itziar, García Igone, Herranz Karmele, Santander Alvaro. Methods and Tools for Empowering Citizens to Observe Acoustic Comfort in Outdoor Public Spaces. Noise Mapping, March 2016; 3(1):37-48 DOI 10.1515/noise-2016-0003. https://doaj.org/article/2f10bebf842a4c759b461a5473127cd3.
- 14. Milena Jovašević-Stojanović, Alena Bartonova, Dušan Topalović, Miloš Davidović, , Ivan Lazovic, Zoran Ristovski, 2016. Evaluation of Monitoring PM With Low-Cost Monitor and Conventional Devices, European Network on New Sensing Technologies for Air Pollution Control and Environmental Sustainability – EuNetAir, COST Action TD1105, 4th International Workshop EuNetAir on Innovations and Challenges for Air Quality Control Sensor, Vienna (Austria), 25 - 26 February 2016, http://www.eunetair.it/cost/workshops/docVienna/BOOKLET_VIENNA_WORKSHOP_V2.pdfpre sentation slides: http://www.eunetair.it/cost/workshops/Vienna/01-PRESENTATIONS/01_DAY_01_TALKS/13_TD1105_VIENNA_Jovasevic-Stojanovic.pdf.
- 15. Miloš Davidović, Dušan Topalović, Milena Jovašević-Stojanović, 2016. Some Practical Aspects of Predictor Variable Layer Creation for Lur Modeling of Air Pollution in Belgrade, COST Action TD1105-EuNetAir, Booklet form 4th International Workshop EuNetAir on Innovations and Challenges for Air Quality Control Sensor, Vienna (Austria), 25 - 26 February 2016, http://www.eunetair.it/cost/workshops/docVienna/BOOKLET_VIENNA_WORKSHOP_V2.pdf.
- Dušan B. Topalović, Miloš Davidović, Zoran Ristovski, Milena Jovašević-Stojanović, 2016. Comparison of Multivariate Linear Regression and Artificial Neural Networks for Calibration of Low Cost Electrochemical Sensors for CO and O3, COST Action TD1105-EuNetAir, Booklet from 4th International Workshop EuNetAir on Innovations and Challenges for Air Quality Control Sensor, Organized by FFG - Austrian Research Promotion Agency - Austrian COST Association, Vienna (Austria), 25 - 26 February 2016, http://www.eunetair.it/cost/workshops/docVienna/BOOKLET_VIENNA_WORKSHOP_V2.pdf.
- P. Schneider, N. Castell, I. Vallejo, M. Vogt, W. Lahoz, A. Bartonova. Data Fusion of Crowdsourced Observations and Model Data for High-resolution Mapping of Urban Air Quality (https://www.researchgate.net/publication/299337505_Data_fusion_of_crowdsourced_observ ations_and_model_data_for_high-resolution_mapping_of_urban_air_quality).
 10th International Conference on Air Quality – Science and Application, Milan (Italy), March 2016. Volume: ISBN: 978-1-909291-76-8.
- Milena Jovašević-Stojanović, Alena Bartonova, Dušan Topalović, Miloš Davidović and Philipp Schneider, An implementation of Citizen Observatory tools used in the CITI-SENSE project for air quality studies in Belgrade, Ed: Zdravković, M., Trajanović, M., Konjović, Z. Proceedings, ICIST 2016, 6th International Conference on Information Society and Technology, Kopaonik, Serbia

(Serbia), March 2016. p. 127-131, ISBN: 978-86-85525-18-6, Issued in Belgrade, Serbia, 2016. http://www.yuinfo.org/icist2016/.

- 19. Barak Fishbain and Erick Moreno-Centeno. Self-Calibrated Wireless Distributed Environmental Sensory Networks. Scientific Reports, April 2016, 6:24382, DOI: 10.1038/srep24382. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC4838881/.
- 20. Tae-Hoon Kim, Sungchul Hong and Jun-Hee Youn. "A study on the design of UPA service model to provide for urban air quality fusion information". Proceedings for the KSGIS Conference, Jeju (South Korea), 12-13/05/2016.
- 21. Junhee Youn, Sungchul Hong, Taehoon Kim. "A Development Plan for GIS-based Comprehensive Air-Quality Index Service System by Using Human Sensor"; "Specifying the Context Information Model Use-Case for Air Pollution Information System"; "Development of UPA Architecture for Air Quality Information Platform, Based on ISO19154". Proceeding of Spring KAIS Conference, Daejeon (South Korea), 20-21 May, 2016.
- 22. Miloš Davidović, Dušan B. Topalović, Milena Jovašević-Stojanović, 2016. Current Perspective on High Resolution NO2 Air Pollution Maps for Belgrade Based on Lur Techniques: Tools, Methods and Improvements, Abstract Book, ISEE-ISES AC2016, Conference of International Society for Environmental Epidemiology and International Society of Exposure Science - Asia Chapter 2016, Sapporo (Japan), June 26-29, 2016, O1_06-3, http://www.cehs.hokudai.ac.jp/ISEE-AC2016/.
- 23. Dušan B. Topalović, Zoran Ristovski, Alena Bartonova, Núria Castell, Miloš Davidović, Milena Jovašević-Stojanović, 2016. "Artificial Intelligence Models for Calibration of Low-Cost Electrochemical Sensors in High-Density Air Pollution Monitoring Networks", Abstract Book, ISEE-ISES AC2016, Conference of International Society for Environmental Epidemiology and International Society of Exposure Science Asia Chapter 2016, Sapporo (Japan) 26-29 June, 2016, O1_06-4, http://www.cehs.hokudai.ac.jp/ISEE-AC2016/.
- 24. Milena Jovašević-Stojanović, Núria Castell, Dušan Topalović, Miloš Davidović, Philipp Schneider, Ivan Lazović, Hai-Ying Liu, Alena Bartonova, 2016. Comparison of Air Quality and Public Perception Data Collected Within Citizens' Observatories Tools for Citi-sense Project Studies in Belgrade and Oslo, Abstract Book, ISEE-ISES AC2016, Conference of International Society for Environmental Epidemiology and International Society of Exposure Science - Asia Chapter 2016, Sapporo (Japan), 26-29 June 2016, O3_11-1, http://www.cehs.hokudai.ac.jp/ISEE-AC2016/.
- 25. Itziar Aspuru, Igone García, Juan Ángel Acero, and Karmele Herranz-Pascual "CITI-SENSE: metodología y herramientas capacitar a los ciudadanos para observar el confort ambiental en espacios públicos de la ciudad" for the proceedings of Congreso Ciudades Inteligentes (https://www.esmartcity.es/comunicaciones/ii-congreso-ciudades-inteligentes-citi-sense); Madrid (Spain), 12 July, 2016.
- Barak Fishbain, Shai Moshenberg and Uri Lerner, "Optimal Noise Filtering of Sensory Array Gaseous Air Pollution Measurements", Advances and New Trends in Environmental Informatics, September 2016, 275-285; <u>http://link.springer.com/chapter/10.1007%2F978-3-319-44711-</u> 7_22.
- Barak Fishbain, Uri Lerner, Nuria Castell-Balaguer, Tom Cole-Hunter, Olalekan Popoola, David M. Broday, Tania Martinez Iñiguez, Mark Nieuwenhuijsen, Milena Jovasevic-Stojanovic, Dusan Topalovic, Roderic L. Jones, Karen Galea, Yael Etzion, Fadi Kizel, Yaela N. Golumbic, Ayelet Baram-Tsabari, Tamar Yacobi, Dana Drahler, Johanna A. Robinson, David Kocman, Milena Horvat, Vlasta Svecova, Alexander Arpaci, Alena Bartonova. 2016. An Evaluation Tool Kit of Air Quality Micro-Sensing Units. Science of The Total Environment. http://dx.doi.org/10.1016/j.scitotenv.2016.09.061.

1.2 Events

- 1. Science for the Environment; Aarhus (Denmark); 01-02/10/2015, Attending partners: NILU; Targeted audience: scientific community; Contribution: oral presentation.
- 2. PRBB open day (http://www.prbb.org/openday); Barcelona (Spain); 03/10/2015 Attending partners: CREAL; Targeted audience: civil society; Contribution: exhibition.



Figure 1 CREAL presents CITI-SENSE to interested audience, Barcelona, October 2015.

3. INTELLIGENT SYSTEMS, 18th international Information Society – IS 2015 multiconference: Analysing the formation of high tropospheric Ozone during the 2015 heatwaves in Ljubljana with data mining; Ljubljana (Slovenia); 07/10/2015; Attending partners. JSI; Targeted audience: scientific community; Contribution: oral presentation.



Figure 2 Johanna Robinson presenting at the IS 2015, Ljubljana, October 2015.

 Greencities & Sostenibilidad, Inteligencia Aplicada a la Sostenibilidad Urbana; Malaga (Spain); 07-08/10/2015; Attending partners: TECNALIA; Targeted audience: scientific community, policy makers; Contribution: stand with leaflet and demo of the toolkits. 5. Annual Science and Environment conference "Participation of schools in scientific air quality research"; Jerusalem (Israel); 12-14/10/2015; Attending partners: Technion; Targeted audience: scientific community; Contribution: oral presentation.



Figure 3 Yaela Golumbic presenting at Annual Science and Environment conference, Jerusalem, October 2015.

 18th international Information Society – IS 2015 multiconference, part of workshop called "Smart Cities and Communities as a Development Opportunity for Slovenia": "Autonomous Environmental Monitoring as Part of Smart Community Infrastructure"; Ljubljana (Slovenia); 12/10/2015; Attending partners: JSI; Targeted audience: scientific community; Contribution: oral presentation.



Figure 4 JSI team presenting at the IS 2015, Ljubljana, October 2015.

- ESA Earth Observation Open Science 2.0 conference: "Making sense of crowdsourced observations: Data fusion techniques for real-time mapping of urban air quality"; Frascati (Italy) 13/10/2015; Attending partners: NILU (Schneider, P., Castell, N., Lahoz, W.A.); Targeted audience: scientific community; Contribution: oral presentation.
- Taller Aula Ambiental de la Sagrada Familia (Environmental class of Sagrada Familia), Ciutadans En Marxa: Mesura I Percepció De La Contaminació; Barcelona (Spain); 20/10/2015; Attending partners: CREAL; Targeted audience: civil society; Contribution: oral presentation.
- CRN; Adding value to the Global Observing System: "Making sense of high-resolution observations from ubiquitous sensing and citizen science"; Tor Vergata (Italy) 22/10/2015; Attending partners: NILU (Lahoz, W.A); Targeted audience: scientific community; Contribution: oral presentation.

- ECSA European Citizen Science Association with ENVIP workshop on Citizens Observatories and Citizen Science (http://envip.wikidot.com/envip-ecsa-ga-2015); Barcelona (Spain); 28-30/10/2015; Attending partners: SINTEF, CREAL, TECNALIA, S&C; Targeted audience: scientific community; Contribution: Organization of workshop and oral presentation to a scientific event (CREAL), oral presentation (SINTEF).
- 11. European Utility Week; Vienna (Austria) 03-05/11/2015; Attending partners: S&C; Targeted audience: scientific community, policy makers, industry, media; Contribution: exhibition stand.
- 12. Week of Science and Technology air pollution; Prague (Czech Republic); 10-13/11/2015; Attending partners: IEM; Targeted audience: industry, civil society, policy makers, media; Contribution: oral presentations.
- 13. GEO-XII Plenary and Mexico City Ministerial Summit; Mexico City (Mexico); 11/11/2015; Attending partners: TECNALIA (contributing partners: SINTEF, NILU, S&C); Targeted audience: scientific community; Contribution: oral presentation (poster).



Figure 5 Citizens' Observatories posters, Mexico City, November 2015.

- 14. Young Investor ISEE meeting: Estimating exposure to fine PM at the neighbourhood scale using stationary and mobile particle samplers; Utrecht (The Netherlands); 15/11/2015; Attending partners: Technion; Targeted audience: scientific community; Contribution: oral presentation.
- Science Week (http://setmanaciencia.fundaciorecerca.cat/activitat/ciencia-ciutadana-peravaluar-la-qualitat-de-laire/); "Ciencia Ciutadana per Avaluar la Qualitat de l' air"; Barcelona (Spain); 16/11/2015; Attending partners: CREAL; Targeted audience: Civil Society; Contribution: oral presentation.
- 16. Smart City Expo World Congress, 2015; Barcelona (Spain); 18-19/11/2015; Attending partners: TECNALIA, CREAL, S&C; Targeted audience: scientific community, policy makers, industry; Contribution: oral presentation (TECNALIA, CREAL), flyers, oral dissemination (S&C).
- 17. R&D Korea 2015; Seoul (Korea); 19-21/11/2015; Attending partners: KICT, SALTUX; Targeted audience: scientific community; Contribution: exhibition stand.



Figure 6 Exhibition stand from KICT and SALTUX, Seoul, November 2015.

- 18. Science Communication in Norway; Oslo (Norway); 21/11/2015; Attending partners: NILU; Targeted audience: scientific community; Contribution: oral presentation.
- 19. CitizenScienceforCommunityEngagementhttp://www.stis.ed.ac.uk/events/otherevents/20142015/citizenscienceforcommunityengagement;Edinburgh (UK);23/11/2015;Attending partners:IOM;Targeted audience:generalpublic, citizen's associations;Contribution:exhibitionstand.
- Commission for the Environment AV CR, "Air Pollution, Health Effects, CITISENSE project"; Prague (Czech); 26/11/2015; Attending partners: IEM; Targeted audience: scientific community, industry, civil society, media, policy makers; Contribution: oral presentation.
- Ecological exhibition, "Zoom in Spaces the impact of environmental pollution on public health"; Prague (Czech Republic); 02/12/2015; Attending partners: IEM; Targeted audience: Civil Society, Media; Contribution: oral presentation.
- 22. Science café, "Effects of air pollution to human health"; Ostrava (Czech); 03/12/2015; Attending partners: IEM; Targeted audience: scientific community, civil society, media, industry, policy makers; Contribution: oral presentation.
- 23. Panel about air quality in Haifa; Haifa (Israel); 13/12/15; Attending partners: Technion; Targeted audience: scientific community, civil society, industry; Contribution: Oral presentation and participation in panel.



Figure 7 Panel and presentation about air quality in Haifa, December 2015.

24. EscoLab open days (https://www.youtube.com/watch?v=1AqdRxS5aGg); Barcelona (Spain); 18/12/2015; Attending partners: CREAL; Targeted audience: Civil Society; Contribution: exhibition.



Figure 8 Scientist of CREAL explaining about CITI-SENSE project to the local media during EscoLab open, Barcelona, December 2015.

- 25. ESAIRE participatory workshop: How to report on air quality; "*When should I worry? Explaining air quality data to the public.*"; Barcelona (Spain); 18/02/2016; Attending partners: CREAL; Targeted audience: Civil Society; Contribution: oral presentation.
- 26. Mobile World Congress, Barcelona (Spain); 22-25/02/2016; Attending partners: S&C; Targeted audience: industry; Contribution: Exhibition Stand, flyers distribution.
- 27. Jornada sobre sensores para la medida de la calidad del aire urbano (http://tecnairecm.org/es/?event=primera-jornada-del-programa-tecnaire-sobre-sensores-para-la-medida-dela-calidad-del-aire-urbano), Desarrollo De Plataformas De Bajo Coste Para La Medición De La Calidad De Aire; Salón de actos del CIEMAT Barcelona (Spain); 25/02/2016; Attending partners: ATEKNEA, CREAL; Targeted audience: scientific community, industry; Contribution: oral presentation.
- 28. Jornada sobre sensores para la medida de la calidad del aire urbano, TECNAIRE-CM "Experiencias En El Proyecto CITI-SENSE; Madrid (Spain)"; 25/02/2016; Attending partners: CREAL; Targeted audience: scientific community; Contribution: oral presentation.
- 29. Scientific event at University of Life Sciences, Vienna; Vienna (Austria); 10/03/2016; Attending partners: UBIMET; Targeted audience: scientific community; Contribution: oral presentation.



Figure 9 Presenting CITI-SENSE project to students and stuff, Vienna, March 2016.

- 55th Annual Meeting Society of Toxicology, "Clues to adaptation of humans to air pollution a review of findings from Czech biomonitoring studies"; New Orleans, (USA); 13/03/2016; Attending partners: IEM; Targeted audience: scientific community; Contribution: poster presentation.
- 31. 10th Air Quality Conference: Science and Application; "Data fusion of crowdsourced observations and model data for high-resolution mapping of urban air quality"; Milan (Italy) 14-16/03/2016; Attending partners: NILU (Schneider, P., Castell, N., Vallejo, I., Vogt, M., Lahoz, W.A.); Targeted audience: scientific community; Contribution: oral presentation.
- 32. EGU 2016 (http://meetingorganizer.copernicus.org/EGU2016/orals/20139); Vienna (Austria) 18-23/04/2016; "Exploiting crowdsourced observations: High-resolution mapping of real-time urban air quality throughout Europe" (Schneider, P., Castell, N., Vallejo, I., van den Bossche, J., Lahoz, W., Bartonova, A., and the CITI-SENSE Consortium Team); "CityAir app: Mapping air-quality perception using people as sensors" (Castell, C., Fredriksen, M., Cole-Hunter, T., Robinson, J., Keune, H., Nieuwenhuijsen, M., and Bartonova, A.); "Uncertainty in Citizen Science observations: from measurement to use perception" (Lahoz, W.A., Schneider, P., Castell, N.C.); Attending partners: NILU, CREAL, JSI, INBO; Targeted audience: scientific community; Contribution: oral presentations.
- 33. Open Day Event; Ljubljana (Slovenia); 19/03/2016; Attending partners. JSI; Targeted audience: general public; Contribution: Flyers, oral dissemination, exhibition.



Figure 10 Flyers distributed during the Open Day and the exhibition stand, Ljubljana, March 2015.

- 34. Festival Evolution health; Prague (Czech Republic); 19/03/2016; Attending partners: IEM; Targeted audience: Civil society, Policy makers, Media; Contribution: oral presentation.
- SECURE Workshop COSLA (http://www.gla.ac.uk/media/media_453723_en.pdf), "Use of 'low-cost' sensor technology to monitor air quality and engage citizens"; Edinburgh (UK); 30/03/2016; Attending partners: IOM; Targeted audience: scientific community, civil society; Contribution: exhibition, workshop organisation, oral presentation.

36. Young researcher's day; Ljubljana (Slovenia); 31/03/2016; Attending partners. JSI; Targeted audience: general public; Contribution: oral presentation.



Figure 11 Students presenting during the Young Researcher's Day, Ljubljana, March 2016.

- 37. Central and Eastern European conference on Health and the Environment; Prague (Czech Republic); 10/04/2016; Attending partners: IEM; Targeted audience: scientific community, policy makers, media; Contribution: conference organisation.
- 38. 8th annual Environment and Health Fund (EHF) "Air Quality Studies involving Public Participation" and a poster titled: "An Evaluation Toolkit of Air Quality Micro Sensing Units "; Tel Aviv (Israel); 11/04/2016; Attending partners: Technion (Barak Fishbain and Uri Lerner); Targeted audience: scientific community and civil society; Contribution: oral presentation, poster.
- *39.* Science & Technology (PCST); Istanbul (Turkey); 17-22/04/2016; Attending partners: Technion; Targeted audience: scientific community; Contribution: in panel discussions.
- 40. Eurocities Noise Working Group, Ljubljana (Slovenia); 21-22/04/2016; Attending partners: TECNALIA; Targeted audience: environmental technicians from cities; Contribution: oral presentation of the Story-teller about Public Spaces and demo of the toolkits.
- 41. Pedal on Parliament (<u>http://pedalonparliament.org/</u>); Edinburgh (UK); 23/04/2016; Attending partners: IOM; Targeted audience: civil society; Contribution: flyer and oral dissemination.



Figure 12 Pedal on Parliament event, participants received flyers and filled the CITI-SENSE questionnaires.

- Earth Day, "Air Pollution, Risks, Prevention"; Ostrava (Czech); 25/04/2016; Attending partners: IEM; Targeted audience: scientific community, civil society; Contribution: organisation of workshops.
- 43. Eureka Innovation Week (<u>http://www.eurekanetwork.org/content/eureka-innovation-week</u>); "Portable air Quality Sensors"; Stockholm (Sweden) 28/04/2016; Attending partners: ATEKNEA; Targeted audience: scientific community, industry; Contribution: Oral presentation.

44. ESA Living Planet Symposium 2016; Prague (Czech Republic) 9-13/05/2016; "Making sense of crowdsourced observations: Data fusion techniques for real-time mapping of urban air quality"; Attending partners: NILU (Schneider, P., Castell, N., Vallejo, I., Vogt, M., Lahoz, W. A.); Targeted audience: scientific community, Contribution: Oral presentation.



45. M2M Forum 2016 (http://www.m2mforum.it/en/); Milan (Italy); 11-12/05/2016; Attending partners: S&C; Targeted audience: Industry; Contribution: exhibition and flyer distribution.

Figure 13 Presenting CITI-SENSE to various industry experts interested in technologies for air quality monitoring, Milan, May 2016.

- 46. Conference Genetic toxicology and prevention of cancer, "Personal exposure to PM2.5 and benzo[a]pyrene in Ostrava" (presentation) and "Genetic toxicology and cancer prevention" (poster); Telc (Czech Republic); 11/05/2016; Attending partners: IEM; Targeted audience: scientific community; Contribution: oral presentation and poster.
- 47. Smart Cities in Smart Regions 2016, "Building a wireless sensor network to capture air pollution trends in Ljubljana added value to the citizens"; Finland; 11/05/2016; Attending partners: JSI; Targeted audience: scientific community; Contribution: oral presentation.



Figure 14 Johanna Robinson presenting LEO at a scientific event, May 2016.

48. ECSA: 1st International European Citizen Science Association Conference; Berlin (Germany) 19-21/05/2016; "CITI-SENSE: High school students as citizen scientists in indoor air quality research – lessons learned" (Sverre Holøs, Høiskar, B. A., Robinson, J.A.); "CITI-SENSE Citizen's Observatory: user perspective" (Hai Ying Liu); "Citizens Science for environmental monitoring: Engagement and Empowerment in Citizens' Observatories" (Alena Batronova); "Public air quality information and perception in eight cities: the CITI-SENSE empowerment initiatives" (Tom Cole-Hunter); CITI-SENSE Toolbox: Developer perspective (Mirjam F. Fredriksen); Can low cost sensors contribute to air quality assessment and citizen science? (Nuria Castell); "Empowering citizens by applying a user-centered design for constructing a citizen science presentation platform" (Yaela

Golumbic); "Real time air Pollution monitoring in elementary school perform by and present to children" (Milena Jovašević -Stojanović; Dušan Topalović, Britt Ann Kastad Hoiska, Sverre Holos, Ivan Lazović, Miloš Davidović, Alena Bartonova); Attending partners: NILU, TECNALIA, SINTEF, S&C, CREAL, TECNION; Targeted audience: Scientific community, Civil society, Medias; Contribution: oral presentations, posters, organise sessions, word café, exhibition.



Figure 15 Presentations and exhibition from the CITI-SENSE consortium, May 2016.

- 49. Science Fair; Prague (Czech); 19/05/2016; Attending partners: IEM; Targeted audience: scientific community, civil society, media; Contribution: exhibition.
- Major Cities of Europe Conference, "CITI-SENSE overview" (Alena Bartonova); Florence (Italy) 30/05-01/06/2016; Attending partners: NILU, TECNALIA, S&C; Targeted audience: scientific community, industry, policy makers, civil society, media; Contribution: Oral presentation and exhibition.
- 51. 10th GEO Workshop; Berlin (Germany); 01/06/2016; Attending partners: NILU, SINTEF; Targeted audience: scientific community; Contribution: oral presentation.
- 52. IOT Week 2016 Belgrade Research day (<u>http://iot-week.eu/slides-iot-week-2016-belgrade/)</u>, IoT Research infrastructure and Testbed as a Service: Miloš Davidović, Vinca Institute of Nuclear Sciences: CITI-SENSE Citizens' Observatory as Research Infrastructure (Miloš Davidović, Mirjam F. Fredriksen, Hai-Ying Liu, Arne Berre, Milena Jovašević Stojanović, Dušan Topalović, CITI-SENSE consortium, Alena Bartonova), IOT application: Milena Jovašević Stojanović, Vinca Institute of Nuclear Sciences: CITI-SENSE citizens' observatory products and tools for air quality studies in cities (Milena Jovašević-Stojanović, Hai-Ying Liu, Arne Berre3, Mirjam F. Fredriksen, Mike Kobernus, Miloš Davidović, Dušan Topalović, CITI-SENSE consortium, Alena Bartonova); Belgrade (Serbia); 02/06/2016; Attending partners: DunavNet, VINCA; Targeted audience: scientific community; Contribution: Oral presentations.
- 53. Event due to World Environment Day, "Citizens product, tool and technologies for air pollution monitoring in urban areas"; Municipality of Belgrade, Belgrade (Serbia); 03/06/2016; Attending partner: VINCA; Targeted audience: university, research institutions, policy makers, public health organization, NGOs, media, Contribution: oral presentation.



Figure 16 Municipality of Belgrade 03/06/2016, Event of celebration the World Environment Day.

- 54. Eurocities Noise Working Group, Rome (Italy); 09/06/2016; Attending partners: TECNALIA; Targeted audience: environmental technicians from cities; Contribution: oral presentation of the Story-teller about Public.
- COWM 2016, "Empowerment at all costs" (Sonja Grossberndt), "Citizen observatory for air" (Hai Ying Liu); Venice (Italy); 10/06/2016; Attending partners: NILU; Targeted audience: scientific community; Contribution: oral presentation.
- 56. Air pollution, risks and prevention; Ostrava (Czech); 15/06/2016; Attending partners: IEM; Targeted audience: scientific community, industry, policy makers, civil society, media; Contribution: workshop organization.
- 57. Scientific event "Colorear los niveles de calidad del aire"; Barcelona (Spain); 20/06/2016; Attending partners: CREAL; Targeted audience: civil society; Contribution: oral presentation.



HGRA: 17:30h - 19:00h LUGAR: Sala Charles Darwin (acceso desde patio interior) (C / Doctor Alguader 88, 08003 Barcelona) PRBB PONENTES: Coordinactin: trene Eleta, investigadora CREAL, centro aliado ISGlobal

Figure 17 Advertising the event online.

58. Annual Science and Environment conference: Citizen science workshop: new monitoring technologies. Organized and co-chaired by Barak Fishbain. Presentations: 1) Quality Assessment of Micro Sensing Units for Air Quality. Uri Lerner and Barak Fishbain. 2) Applying a user-centered design for constructing a citizen science platform. Yaela Golumbic, Ayelet Baram-Tsabari and Barak Fishbain. a poster titled "The effect of Ego-Motion on Environmental Monitoring"; Tel Aviv (Israel); 21-23/06/2016; Attending partners: Technion; Targeted audience: scientific community

(university of Tel Aviv); Contribution: Conference session and two oral presentations and a poster.

- 59. Indoor Air 2016: The 14th International Conference of Indoor Air Quality and Climate; "High school students as potential actors in monitoring and improving indoor environmental quality: scientific quality of work performed by students involved in CITI-SENSE pilot studies" (J. A Robinson, S. B Holøs, B. A. K. Høiskar, M. Jovašević-Stojanović, D. Topalovic, D. Kocman, H. Keune); "Will indoor environmental training modify pupils' perception of how air quality affects their health?" (S. B. Holøs, B. A. Kåstad Høiskar, M. Jovasevic-Stojanovic, H. Keune, P. van den Hazel, D. Topalovic); "Is a project aiming at engagement of citizens a biased activity? Is that a problem? (H. Keune, P. van den Hazel*, J. Robinson, S. Holøs, B. Kastad Hoiskar); "Increased knowledge and scientific thinking following participation of school students in air-quality research" (Yaela N Golumbic, Ayelet Baram-Tsabari, Barak Fishbain); Ghent (Belgium); 3-8/07/2016; Attending partners: NILU, SINTEF, JSI, VINCA, PVDH, INBO; Targeted audience: scientific community; Contribution: oral presentations.
- 60. NRC/IMAA Institute of Methodologies for Environmental Analysis, "Development of a community based air quality monitoring system: the CITI-SENSE project experience"; Potenza/Tito Scala, (Italy); 13/07/2016; Attending partners: NILU; Targeted audience: scientific community, civil society; Contribution: workshop organization.
- 61. Europe-Korea Conference on Science Technology; Berlin (Germany); 26-30/07/2016; Attending partners: KICT; Targeted audience: scientific community, policy makers; Contribution: oral presentation.



Figure 18 KICT presenting CITI-SENSE in scientific event in Berlin, July 2016.

- 62. International Society for Environmental Epidemiology (ISEE) conference 2016: "Optimal Deployment of a Heterogeneous Sensor Network", . Poster: "Personal exposure to PM2.5 and benzo[a]pyrene in Ostrava, Czech Republic", Rome (Italy) 01-03/09/2016; Attending partners: Technion (Lerner. U), CREAL (Tom Cole-Hunter), Vlasta Svecova IEM; Targeted Audience: scientific community, media, local decision makers; Contribution: oral presentation and poster.
- 63. International Network on Children's Health, Environment and Safety, Poster: "Personal exposure to PM2.5 and benzo[a]pyrene in Ostrava, Czech Republic", oriented to data from measurement PM2.5 a benzo[a]pyrenu in schools in Ostrava; Barcelona, (Spain); 14-16/09/2016; Attending partners: IEM; Targeted Audience: scientific Community; Contribution: poster.
- 64. International Network on Children's Health, Environment and Safety, Poster: "Changing kindergarten practices with localized real-time information on outdoor air: The experience of CITI-SENSE project in Oslo, Norway"; Barcelona, (Spain); 14-16/09/2016; Attending partners: NILU; Targeted Audience: scientific Community; Contribution: oral presentation.
- 65. EU Research and Innovation in Support of the Earth Observation Market (www.slideshare.net/danielemiorandi/crowdsourcing-for-earth-observation-perils-and-

promises); Brussels (Belgium); 21-22/09/2016; Attending partners: U-Hopper; Targeted audience: policy makers, industry, media; Contribution: oral presentation

- 66. EPA Smart City Air Challenge: CITI-SENSE: How 8 cities measured air quality. Webinar. 28/09/2016. <u>https://developer.epa.gov/smart-city-air-challenge-webinar-series/</u> Attending partners: NILU
- 67. Smart Mobility Hackathon Oslo. 16-18/09/2016 http://www.startuplab.no/hackathon/ Use of CITI-SENSE data from Oslo
- 68. Seminar/Hackathon: VGI and Citizen Observatories INSPIRE Hack at the INSPIRE conference. 26/09/2016 Attending partners: SINTEF & NILU.
- 69. INSPIRE 2016, oral presentation: CITI-SENSE citizen observatory for air quality: collected data and reusable software and tools. 28/09/2016. Attending partner: SINTEF
- 70. INSPIRE 2016, oral presentation: Citizens and air quality: do the information supply and demand match? 28/09/2016 Attending partner: NILU

1.3 Media

- 1. Social Media (Facebook, Twitter); 01/10/2015; Partners involved: CREAL; Targeted public: civil society; Visibility level: worldwide.
- Article published at web portal of newspaper Danas "Zagadjenost vazduha u gradovima" (http://www.danas.rs/danasrs/srbija/beograd/zagadjenje_vazduha_u_gradovima_.39.html?ne ws_id=308943); Partners involved: VINCA; Targeted public: civil society, media; Visibility level: National; 02/10/2015.



Figure 19 Screenshot of article in newspaper Danas "Air pollution in cities", Belgrade, October 2015.

 Article at Serbian portal about energy, Business portal about clean energy, "Projekat CITI-SENSE" (http://www.energetskiportal.rs/projekat-citi-sense/); Partners involved: VINCA; Targeted public: civil society, media; Visibility level: National; 05/10/2015.

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Figure 20 Screenshot of article at the Serbian portal about energy, Business portal about clean energy, "CITI-SENSE project", Belgrade, November 2015.

- 4. Social Media (Facebook https://www.facebook.com/CitiSenseLjubljana); Partners involved: JSI; Targeted public: civil society; Visibility level: worldwide.
- 5. Articles published in popular press Teachers magazine "Naravoslovna šolnica"; Slovenia; Autumn 2015; Partners involved: JSI; Targeted public: civil society; Visibility level: local.



Figure 21 Teacher's magazine featuring Nature days organized by JSI.

Interview on national radio, Radio Belgrade 1 with Milena Jovašević-Stojanović, "U središtu pažnje" <u>http://www.rts.rs/upload/storyBoxFileData/2015/10/09/25643281/USP 09-10.mp3</u> and articles at web portal of Radio Belgrade 1, <u>http://www.rts.rs/page/radio/sr/story/23/radio-beograd-1/2065394/u-sredistu-paznje.htmll</u>, 09/10.2015; Partners involved: VINCA; Targeted public: civil society; Visibility level: National.



Figure 22 Short article about interview "In focus" and invitation volunteers for participation in CITI-SENSE case study in Belgrade, October 2015.

7. Article published at portlal of newspaper KURIR newspaper, "Da lakše se dišete:Aplikacija otkriva koliko je zagadjen vayduh na mestu na kom se nalazite" with connection to CITI-SENSE web portal Belgrade (http://www.kurir.rs/zabava/tech/da-lakse-disete-aplikacija-otkriva-koliko-je-zagaden-vazduh-na-mestu-gde-se-nalazite-clanak-2010897); Partners involved: VINCA; Targeted public: civil society, media; Visibility level: National; 09/11/2015.



Figure 23 Screenshot of part of aricles in newpaper Kurir" To breat easy: App disover level of air pollution on the place where you are", Belgrade, November 2015.

 Web page advertisement for the Laboratory of Thermal Engineering and Energy, Institute Vinca, invitation for participation in CITI-SENSE case study in Belgrade, (http://www.ltevinca.rs/public/lang/rs/vesti); Partners involved: VINCA; Targeted public: civil society, media; Visibility level: National; 11/11/2015.

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	- 11.11.2015.
	CITI-SENSE upitnik
	Postovane kolege,
	Institut Vinca je partner na FP7 CITI-SENSE projektu (2012-2016).
	Molim vas posetite web portal http://belgrade.citi-sense.eu/ i popunite
	upitnik o kvalitetu vazduha u Beogradu.
	Ukoliko ste zainteresovani možete da:
	 učestvujete u kreiranju mape o subjektivnoj osoćaju zagađenja u Beogradu korišćenjem aplikacije AirCity.
	 se prijavite se da učesvujete u kampanjama personalane izloženosti na zagadivača koje ćemo uskoro početi da realizujemo.
	Osnovne informacije o studiji aerozagadjenja u Beogradu su prikazane na
	nortalu http://belgrade.citi.sense.eu/_Viče.infromarila.o.CITLSENSE
	profiles under the data http://www.citi-sense.eu/ i http://co.citi-sense.eu/.
	Osnovne informacije o studiji aerozagadjenja u Beogradu su prikazane na portalu http://belgrade.clti-sense.au/. Više infromacija o CITI-SENSE

Figure 24 Screenshot of advertisment at web page of Laboratory for Thermal Engineering and Energy, Institute Vinca, for participoation in CITI-SENSE case study in Belgrade, November 2015.

9. Newspaper article, ¿Debería utilizar mascarilla en la ciudad? La contaminación atmosférica hace necesario protegerse para respirar mejor. ¿Cómo lo hacemos? ¿Qué herramientas usamos? EL PAIS (http://elpais.com/elpais/2015/12/03/planeta_futuro/1449142554_320396.html); 03/12/2015; Partners involved: CREAL; Targeted public: civil society; Visibility level: national.

- 10. Press release (<u>http://www.sintef.no/byggforsk/fagblogg/poster/klart-for-nye-inneklimaforskere/</u>); 15/12/2015; Partners involved: SINTEF; Targeted public: media, civil society; Visibility level: National.
- 11. Article published on popular press based on press release: norskvvs (<u>http://www.norskvvs.no/ventilasjon-inneklima/elever-blir-inneklimaforskere/</u>); 16/12/2016; Partners involved: SINTEF; Targeted public: media, civil society; Visibility level: National.
- 12. Interview and article in the popular press (http://air.net.technion.ac.il/files/2016/02/%D7%9B%D7%AA%D7%91%D7%94-%D7%91%D7%99%D7%93%D7%99%D7%A2%D7%95%D7%AA_%D7%9C%D7%90-%D7%A6%D7%A8%D7%99%D7%9A-%D7%9C%D7%94%D7%91%D7%94%D7%9C.pdf) "No in to panic"; 05/02/16; Partners involved: Technion; Targeted public: civil society, media; Visibility level: National.
- 13. Interview/TV clip: Slovenska tiskovna agencija (STA); Ljubljana (Slovenia); 22/02/2016; Partners involved: JSI; Targeted public: media, civil society; Visibility level: national.



Figure 25 Dr. David Kocman talking to a journalist for a national channel.

 Articles published in popular press "Project CITI-SENSE enables access to air quality information in Ljubljana with the help of citizens" (http://znanost.sta.si/2242135/s-projektom-citi-sense-dopodatkov-o-kakovosti-zraka-v-ljubljani-s-pomocjo-prebivalcev); Ljubljana (Slovenia); 23/03/2016; Partners involved: JSI; Targeted public: media, civil society; Visibility level: national.



Figure 26 Screenshot of the published article, March 2016.

- 15. Interviews
 on
 national
 radio

 (<u>http://mvod.lvlt.rtve.es/resources/TE_SPREFER/mp3/2/7/1452772987072.mp3</u>);
 Barcelona

 (Spain);
 13/01/2016;
 Partners involved: CREAL;
 Targeted public: civil society;
 Visibility level:

 National.
- 16. Article published in the popular press (http://abicko.avcr.cz/miranda2/export/sitesavcr/data.avcr.cz/abicko/2016/03/pdf/AB3_16_we b.pdf), "Academic bulletin-Air pollution, health effects and public involvement"; 18/03/2016; Partners involved: IEM; Targeted public: civil society, media, industry, policy makers; Visibility level: National.
- 17. Article published in popular press; 16/04/2016; Partners involved: UBIMET; Targeted public: scientific community, industry; Visibility level: National.



Figure 27 Screenshot of the published article, April 2016.

- 18. Article published in popular press, "Mladi raziskovalci: Onesnaženost zraka sta naredila otipljivo" made air pollution tangible young researchers (https://www.dnevnik.si/1042735728/lokalno/ljubljana/mladi-raziskovalci-onesnazenost-zrakasta-naredila-otipljivo); 17/05/2016; Partners involved: JSI; Targeted public: civil society, media; Visibility level: National.
- 19. Articles published in the popular press (http://www.idnes.cz/,http://ostrava.idnes.cz/ovzdusise-lepsi-stale-to-nestaci-dlk-/ostrava-zpravy.aspx?c=A160523 2248272 ostrava-zpravy woj) "Ostrava was one of the most polluted regions in Europe"; 23/05/2016; Partners involved: IEM; Targeted public: civil society; Visibility level: National.
- 20. Articles published in the popular press: AstmaAllergi "CITI-SENSE: "Elever fikk fagpris", "Sier sin mening" and "Fakta" (Students received professional prize", "Says their opinion" and "Facts"); 27/05/2016; Partners involved: NILU; Targeted public: civil society, media; Visibility level: National.



Elever fikk fagpris for støyforskning

Figure 28 Screenshot of the published article, Oslo, May 2016.

21. TV clips in news, short interview about CITI-SENSE product and tools after celebration World Environment Day at Municipality of Belgrade; Belgrade (Serbia); 03/06/2016; Partners involved: VINCA; Targeted public: civil society, media; Visibility level: National.



Figure 29 Short interview with Dušan Toplalović, Belgrade CITI-SENSE team member, emitted at Studio B news, June 3th 2016.

 Articles published in popular newspaper (http://www.politika.rs/scc/clanak/356431/Leo-za-Vesicevim-pojasom) "Leo za Vesićevim pojasom"; 03/06/2016; Partners involved: VINCA; Targeted public: civil society, media; Visibility level: National.



Figure 30 Screenshot of pulished article "Leo on Vesic's belt" , newspaper Politika, Belgrade, june 2016.

23. Article published in popular press BETA (http://beta.rs/zelena-srbija/zs-beograd/33824predstavljeni-mini-uredjaji-za-merenje-zagadjenja-vazduha) "Predstavljeni mini uredjaji za merenje kvaliteta vazduha" 03/06/2016; Partners involved: VINCA; Targeted public: civil society, media; Visibility level: National.



Figure 31 Article at web portal of newspaper agency BETA, "New device for measuring air pollution presented", Belgrade, June 2016.

 Article published in newspapers Telegraf (http://www.telegraf.rs/vesti/beograd/2176302stigao-novi-uredjaj-za-merenje-tacnih-podataka-o-stepenu-zagadjenja-vazduha-u-beogradu) "Stigao novi uredjaj za merenje tačnih podataka o stepenu zagadjenja vezduha u Beogradu" 03/06/2016; Partners involved: VINCA; Targeted public: civil society, media; Visibility level: National.



Figure 32 Screenshot of article at web portal of newspaper Telegraf, "New device for precise measurement data about air pollution about level of air pollution in Belgrade", Belgrade, June 2016.

 Article published in web portal of agency Mondo/Tanjung, "Od sada ćete sami meriti zagađenost vazduha VIDEO" (<u>http://mondo.rs/a908491/Info/Drustvo/Beograd-Uredjaj-za-merenjezagadjenosti-vazduha.html</u>); 03/06/2016; Partners involved: VINCA; Targeted public: civil society, media; Visibility level: National.



Figure 33 Screenshot of article at web portal of agency Mondo/Tanjung, Tile of article "From now on you can measure air pollution by yourself".

26. TV clips in news (<u>http://www.ceskatelevize.cz/ivysilani/10122978233-udalosti-v-regionech-ostrava/416231100030510-udalosti-v-regionech;</u>

http://www.ceskatelevize.cz/ct24/regiony/moravskoslezsky-kraj/1782260-vedci-nejspinavejsi-

ovzdusi-neni-jen-v-radvanicich-ale-take-ve), "Harmful air in Ostrava region"; 15/06/2016; Partners involved: IEM; Targeted public: civil society, media; Visibility level: National.

- 27. Article published in the popular press (http://zavit.org.il/%D7%99%D7%A9-%D7%9E%D7%A9%D7%94%D7%95-%D7%91%D7%90%D7%95%D7%95%D7%99%D7%A8/)
 "Something in the air" published By Zavit- News agency for science and the environment;-15/06/16; Partners involved: Technion; Targeted public: civil society, media; Visibility level: National.
- Articles published in popular press (<u>https://www.dnevnik.si/1042741621</u>) "Na Viču našli recept za najboljše naloge" - Gymnasium Vič has discovered the best recipe for research assignments; 27/06/2016; Partners involved: JSI; Targeted public: civil society, media; Visibility level: National.



Figure 34 Screenshot of the published article, Ljubljana, June 2016.

- Article in popular press: Dagsavisen (<u>http://www.dagsavisen.no/oslo/folk-flest-om-oslo-lufta-1.772857</u>) "Folk flest om Oslo-lufta" ("Citizens about Oslo air"); 01/09/2016; Partners involved: NILU; Targeted public: Civil society; Visibility level: National.
- 30. Adverts in local press 3 consecutive weeks and also on-line in "Metronews" paper. Participants: IOM; Targeted audience: general public; Location: Edinburgh (UK); September October 2016.



Figure 35 The advert used for the newspaper.

- Radio Interview about the CITI-SENSE Oslo EI on the Norwegian national radio station. The interview went on air on 21/09/2016. <u>https://radio.nrk.no/serie/ekko/MDSP25018816/21-09-2016</u>
- **32.** Sequence in a film clip for Kunnskapsbyen Lillestrøm. To be published on 12/10/2016.

1.4 Engagement Activities

 Logo of CITI-SENSE Belgrade, CityAir app and invitation to fill CITI-SENSE questionnaire at official home page of Municipality of Belgrade, www.beograd.rs and article at http://www.beograd.rs/index.php?lang=cir&kat=beoinfo&sub=1703152%3F; Participants: VINCA; Location: official Home page of official web portal of (Serbia); Visibility level: National; since October 2015.



Figure 36 Screenshoot of home page of official portal of Municipality of Belgrade, zoom CITI-SENSE advetisment.



Figure 37 Screenshoot of portal of Municipality of Belgrade with article "The City support Institute Vinča in CITI-SENSE project realisation".

 Logo of CITI-SENSE Belgrade, CityAir app and invitation to fill CITI-SENSE questionnaire at official home page of Public Health Institute of Belgrade, <u>www.zdravlje.org.rs</u>; Participants: VINCA; Location: Home page at official portal of Public Health Institute of Belgrade (Serbia); Visibility level: National; since October 2015.



Figure 38 Screenshoot of home page of official portal of Public Health Institute of Belgrade, zoom CITI-SENSE advetisment.

- 3. Distribution of leaflets in libraries; Participants: NILU; Location: National, Oslo (Norway); 25/10/2015.
- Facebook page Beogradska gradjanska opservatorija, <u>https://www.facebook.com/bgopservatorija/</u>; Continuous updates; Partners involved: VINCA; Targeted public: civil society; Visibility level: National.



Figure 39 Screenshot of facebook page of Belgrades' CO.

- 5. Organization of workshops, Outdoor activities with a primary school; Participants: JSI and civil society; Location: Ljubljana (Slovenia); 30/11/2015.
- Facebook of Regional Agency, Short article about CITI-SENSE project and invitation volunteers for participation in case study in Belgrade (https://www.facebook.com/regionalnaagencijazarazvojievropskeintegracije/posts/ 1682303985346843); Partners involved: VINCA; Targeted public: civil society; Visibility level: National; 22/12/2015.



Figure 40 Short article and invitation volunteers for participation in CITI-SENSE case study in Belgrade, December 2015, Belgrade (Serbia).

- Organise a workshop "Citi-Sense experience in Vitoria –Gasteiz: Results report from citizens"; Participants: Ibatuz and civil society; Location: Vitoria-Gasteiz (Spain), Centre of Associations; 11/2015.
- 8. Flyer distribution in public spaces (400 pieces); Participants: UBIMET; Location: Donau City (Austria); 01/02/2016.
- 9. Organization of workshops A workshop demo of LEOs and AQMesh to elderly people from Univerza za tretje življenjsko obdobje v Ljubljani; Participants: JSI and civil society; Location: Ljubljana (Slovenia); 11/03/2016.



Figure 41 Workshop participants getting familiar with the sensors, Ljubljana, March 2016.

10. Organization of workshop, experiment of cleaning a classroom from particulate matter; Participants: JSI and Slovenian School; Location: Ljubljana (Slovenia); 25/01/2016.



Figure 42 Showing the particulate matter to students.

 Organization of workshop, activities for eight graders (in two classes), students walked around the school with LEOs and DYLOS setting hypothesis on air quality around different locations of the school neighbourhood; Participants: JSI and Slovenian School; Location: Ljubljana (Slovenia); 17/05/2016.



Figure 43 Plotted routes of students holding the LEO sensors.

 Facebook page of Green Youth of Serbia, Advertesment with invitation voluteers to participate in LEO campaings, (https://www.facebook.com/zelenaomladina/posts/10209357864761556); Participants: VINCA; Visibility: National; 18/05/2016.

f Zelena omladina Srbije	٩
\checkmark	Milan Boric ≽ Zelena omladina Srbije May 18 : € ciao,
ЗЕЛЕНА ОМЛАДИНА СРБИЈЕ	JAVITE SE AKO ŽELITE DA KAO VOLONTER NEDELJU DANA RADITE NA PRIKUPLJANJU UZORAKA KVALITETA VAZDUHA DOK VOZITE BICIKL SVAKI DAN I. Potrebno nam je 10 volontera za ovo istraživanje.
CFDHJE	Milan Borić
	Tel: 063 372 752
Zelena omladina Srbije _{@zelenaomladina}	Maja druganica jok iz srednje škole radi u "Institutu za rukleane nauke - Vinča" na projektu "CITI-SENSE" koji je pokrenuo "NILU-Norwegian Institut for AIR Research". Ona u "Laboratoriji zaštitu do zračenja i zaštitu životne sredine" radi na pomenutom međunarodnom projektu WP8 koji ma finansjsku podršku
Home	Evropske Unije. U taj projekat je uključeno 29 partnera uglavnom iz Evrope, ali ima partnera
About	iz Izraela i Koreje. http://citi-sense.nilu.no/Project/Consortium.aspx
Photos	Projekat ima za cilj da u saradnji sa građanima uspostavi građanski mobiln monitoria kvalitela vazduha i da mapira postojeće ili otkrije nove zone veće
Reviews	aerozagađenja u gradovima. Pored odavno uspostavljenog statičnog monitoring sistema u svetu ovaj
Videos	projekat omogućava da građani volonteri doprinesu svojim učešćem u "građanskoj opservaciji" koristeći male sensorske jedinice koje nose na set
Events	dok voze bicikl ili pešače po gradu. Kombinacijom smart telefona, GPS uređaja i ovih sensorskih jedinica predviđeno je praćenje parametara u
Likes	realnom vremenu preko bežične veze između centra koji prikuplja

Figure 44 Invitation volunteers to participate in LEO campaigns, Facebook page of Green Youth of Serbia, May 2018. Belgrade.

13. Presentation and discussion moderating for "Mimshak - Science and Policy Fellowship Program" tour in Haifa, as part of a general session of Risk Assessment and Air Pollution. The Activity included Half day monitoring in Haifa with LEO units, followed by oral presentation, data analysis session (from the gathered monitoring data), and discussion about urban air pollution, implications, prevention at the personal and regulatory levels etc. 24/05/2016.

- 14. Institute Vinča Open day, Lectures by CITI-SENSE Belgrade team members Milena Jovašević-Stojanović, Dušan Topalović, Miloš Davidović, Ivan Lazović Belgrade "CITI-SENSE PROIZVODI, ALATI I TEHNOLOGIJE (COT) ZA PRAĆENJE AEROZAGADJENJA U URBANIM SREDINAMA"; Participants: VINCA and three group of high school students from Belgrade and other cities form Serbia; Location: Belgrade (Serbia); 25/05/2016.
- 15. Flyer translated to Serbian and adjusted for Belgrade's' CO" Šta su Citi-Sense građanske opservatorije i kako vam mogu koristiti", distributed during Event at Municipality of Belgrade and hang at local CITI-SENSE portal; Participants: VINCA; Visibility: Local; 03/06/2016.



Figure 45 Flyer at Serbian lunguage about CO, Belgrade, June 2016.

- Organization of workshops: Nature day, ecologically oriented treasure hunt in a local forest, for two classes from 4th grade; Participants: JSI and Slovenian School; Location: Ljubljana (Slovenia); 07/06/2016.
- 17. Flyers distribution at a bike event "Festa de la Bicicleta" (http://ajuntament.barcelona.cat/premsa/2016/06/09/barcelona-celebra-la-festa-de-la-bicicleta-2016/). Participants: CREAL and civil society; Location: Barcelona (Spain); 11/06/2016.
- Organization of workshops: Nature day, in a local forest; introduction to scientific work and thinking (curiosity) through measurements and play, for two classes from 1st grade; Participants: JSI and Slovenian School; Location: Ljubljana (Slovenia); 14/06/2016.
- Organization of workshops: Nature day, ecologically oriented treasure hunt in a local forest for two classes from 3rd grade; Participants: JSI and Slovenian School; Location: Ljubljana (Slovenia); 17/06/2016.



Figure 46 Nature days for primary schools organised by JSI in Ljubljana, June 2016.

- 20. Initiating a "Making" Workshop for building low cost air quality kits; Participants: Technion and Members of the Community workshop for sustainability; Location: Haifa (Israel); 20/06/16.
- 21. Distribution of report about citizens' perceptions of air quality in Haifa; Participants: Technion and scientific and professional community and EPA workers (distribution to participants of a transportation workshop and though website); Location: Haifa (Israel); 21/06/16.
- 22. Talk and tour for environmental teachers demonstrating the use of citisense Leo sensors; Participants: Technion and civil society; Location: Haifa (Israel); 11/07/16.
- Organization of webinar: "Citizen Science in a Global Perspective"- http://ecsa.citizenscience.net/blog/webinar-citizen-science-global-perspective; 19/07/2016; Participants: Technion; Visibility level: Worldwide (PSCT and ECSA communities worldwide).
- 24. Organisation of conference: Oslo Citizens' Observatory Final Event; Participants: NILU, civil society, scientific community and policy makers; Location: Oslo (Norway); 01/09/2016.
- 25. Distribution of leaflets in the research park, public areas, local train stations and park & ride event; Participants: IOM; Location: Edinburgh (UK); Targeted audience: general public; September November 2016.



Figure 47 A flyer to encourage participation in the Long Perception Questionnaire.

- 26. Posters in local businesses, community centres, libraries. Participants: IOM; Location: Edinburgh (UK); Targeted audience: general public; Throughout September November 2016.
- 27. CITI-SENSE Project video (<u>https://www.youtube.com/watch?v=X6pYcwALVRU</u>); Partners involved: all; Targeted public: civil society; Visibility level: worldwide.
- 28. Videos (<u>https://www.youtube.com/watch?v=ahZtOZN_eH0</u> and <u>https://www.youtube.com/watch?v=cgDO3z9B3Kc</u>); Partners involved: Ibatuz and Tecnalia; Targeted public: civil soicety; Visibility level: worldwide.
- 29. CitizenSQKM The CITI-SENSE team had collaborated with the Project. CitizenSqKm (<u>http://blog.citizensqkm.net/</u>). Funding Institution: European Commission (CONFINE) was a technological, educational, journalistic and civic administration experience and an experimentally-driven research on community-owned local networks located in a selected square kilometre. CitizenSqKm project explores how community networks can increase civic engagement. Together they conducted some activities with scholars with the objective of make accessible to them the new air pollution sensors developed within the CITI-SENSE project; Participants: CREAL and civil society; Throughout 2015-2016.

1.5 Dissemination Activities after M48

This section includes dissemination activities of all the four categories that will either be completed during September after the submision of this deliverable or after the end of the project.

- 1. Golumbic, Y.N., Orr, D., Baram-Tsabari, A., and Fishbein, B. (accepted). Between vision and reality: Scientists' ideas about public participation in science. Citizen science theory and practice.
- 2. Smart Summit London (<u>http://www.iotsmartsummitlondon.com/</u>); London (UK); 21-22/09/2016.
- 3. INSPIRE conference (http://inspire.ec.europa.eu/events/conferences/inspire 2016/page/home) Citizen science: Public participation in scientific research; Barcelona (Spain); 26-30/09/2016. Participants: SINTEF, NILU.
- 4. Researchers' Night in Belgrade, Participation of students form elementary school "20. oktobar" with biology teacher and CITI-SENSE team Beograd "Važno je znati kakav vazduh udišeš", program presented at portal <u>http://nocistrazivaca.rs/program/vazno-je-znati-kakav-vazduh-udises/</u>, 30/09/.2016. Partners involved: VINCA; Targeted public: civil society; Visibility level: National



Figure 48 Researchers' Night program: "It is important to know what is the Air Quality we breathe" Belgrade, September 2016.

- 5. Finalisation and publishing by Insitute Vinča WeBIOPATR205 Proceedings with 4 papers related to CITI-SENSE project (VINCA, NILU, QUT).
- 6. Finalisation of paper for pre-review journal about application ANN for calibration low-cost sensors (VINCA, QUT, NILU, TEHNION).
- 7. Preparation of paper with results of campaign in Belgrade, ROS, RM in wide range of fraction, OC/EC, WSOC, (VINCA, QUT and other consortium partners)
- Preparation of paper for peer-review journal about feasibility of PM monitoring with available low-cost sensors during CITI-SENSE campaigns in Belgrade (VINCA, QUT, and other consortium partners)
- 9. Preparation of paper relating to air pollution maps in Belgrade, e.g. establish base CO pollution map for Belgrade, Ljubljana ... (VINCA, JSI, and other consortium partners)

- 10. Participation in papers preparation with results form case studies from cities with CITI-SENSE partners.
- 11. ISES International Society of Exposure Science (https://ises2016.org), Utrecht (The Netherlands) 09-13/10/2016. "CITI-SENSE Edinburgh –The empowerment potential of participatory tools for environmental monitoring of air quality"; co-author on an oral presentation given at the event The CITI-SENSE Citizens Observatory Toolbox: visualising and evaluating citizen-contributed environmental exposure information. Partner: IOM. Visibility level: worldwide.
- 12. IoT World Congress (http://www.iotsworldcongress.com/); Barcelona, Spain 25.-27/10/2016.
- 13. EGU General Assembly 2017 (<u>http://www.egu2017.eu/</u>); Vienna (Austria); 23-28/04/2017.
- 14. Y.N. Golumbic, D. Orr, A. Baram-Tsabari and B. Fishbain, "Between Vision and Reality: A Case Study of Scientists' Views on Citizen Sci- ence" Between Vision and Reality: A Case Study of Scientists' Views on Citizen Science", Citizen Science: Theory and Practice, (in press).