

CAPTOR

COLLECTIVE AWARENESS PLATFORM
FOR TROPOSPHERIC OZONE POLLUTION



Newsletter No 1

Citizen Empowerment to fight Ozone Pollution

August 2016

General project overview

CAPTOR is a collaborative project funded by the European Union's Horizon 2020 research and innovation programme, which started in January 2016 for a duration of 3 years. The consortium is composed of 8 partners, environmental NGOs and research centers, coming from Spain, Italy, Austria and France.

Air pollution is the environmental topic that European citizens worry about most.¹ It is responsible for 400.000 premature deaths in Europe each year and puts considerable damage to agriculture as well as our natural environment.² The health-related costs are estimated between €300 billion and €900 billion every single year.³ CAPTOR objectives address the general **air pollution problem, which will be depicted by monitoring specifically the tropospheric ozone**. Ozone is a secondary pollutant which originates from photochemical reactions linked to its gaseous precursors nitrogen oxides (NOx) and organic volatile compounds (VOCs), emitted mainly in urban environment.



Partners of CAPTOR project
General Assembly and Kick-off meeting
Barcelona 18-19 January 2016

In CAPTOR **citizens and scientists collaborate closely to monitor and address ozone pollution in Europe**. We aim to establish a monitoring network made of low-cost sensors to measure ozone pollution in affected areas, and we'll use collaborative learning tools to stimulate collaborative solution finding.

Ozone Monitoring Plan

The low cost sensors will be hosted and maintained by the concerned citizens themselves and developed with a special attention on the quality of data, because this is a crucial point of the citizens' empowerment and mobilisation. The plan also involves national Air Quality Agencies in the preparation, respectively the comparison and calibration of first measurement data with data from official monitoring stations.

In order to ensure that the **data collected by the sensing nodes deployed in CAPTOR is of the highest scientific quality possible**, first steps were to develop guidelines for:

- Deployment: macro-scale and micro-scale placement criteria.
- Technical requirements: Power supply and Wi-Fi access.
- Test and Calibration before deployment.
- Maintenance and servicing.

¹ "Attitudes of European Citizens towards the Environment", 2014, Special Eurobarometer 416 / Wave EB81.3

² <http://www.eea.europa.eu/themes/air>, European Environment Agency

³ <https://ecf.com/news-and-events/news/ecf-joins-alliance-better-eu-air-quality-laws>

Contents

General project overview.....	1
Ozone Monitoring Plan	1
Citizens' Ozone Measurement: First Campaign started!	2
Creating CAPTOR Community	2
Contacts	3



Citizens' Ozone Measurement: First Campaign started!

Three ozone measurement campaigns will be carried out by volunteers during the summer periods, when tropospheric ozone reaches maximum concentrations in Europe. While in the Spanish test bed first volunteers have already been involved as hosts during the campaign 2016, in Austria and Italy the real involvement will start for the campaign in 2017. The reason is that during the first campaign the entire system as well as the developed tools to publish the captured data in real time on website, mobile app and Collaborative learning platforms will be tested.

Want to know how our CAPTORs sensors to measure ozone look like?

Watch a short video how the teams from UPC and CSIC in Barcelona built the first CAPTORs to measure air quality



<https://vimeo.com/169677817>



As planned, on May 17 2016 the first call for volunteers in Catalonia (Spain) was launched and got a great response with a total of 84 registered candidates for a final selection of 20 volunteers. In addition to installing the sensors in the volunteers' homes, we proceeded to sign a collaboration agreement with the volunteers and asked to fill out the first questionnaire that helps to understand the social impact of the project. To encourage participants' involvement with the project and go forward from being a host *volunteer* to an *observer* (= people who watch data, discuss and take further actions), all the news and events related to the project, as well as the next steps in the campaign are actively communicated to volunteers. At the end of the first campaign we will develop a report with the collected data of the sensors in order to share the study results with participants and all interested stakeholders. The remaining candidates who were not selected (except one) maintain

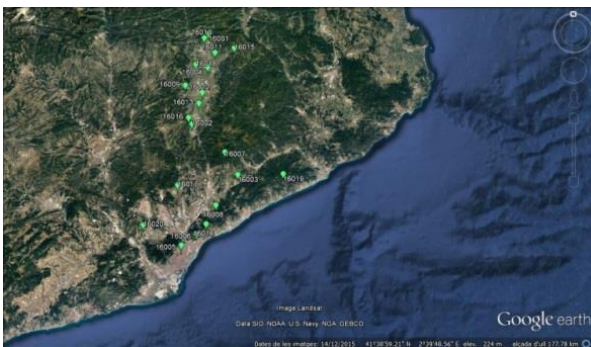
interest to keep in touch for the future campaigns (planned to expand to 35 volunteers) or to collaborate in further activities provided by the project. The campaign has generated much interest in the areas by local authorities and media.

Creating CAPTOR Community

A Dissemination, Communication and Outreach Plan was prepared to define the strategy, materials and activities that will be implemented during the project in order to:

- Disseminate the results of the project and raise awareness to all relevant stakeholders.
- Facilitate information exchange and collaboration on air pollution problems and solutions.
- Use the results of the project to promote changes in collective behavior.

Generally speaking, the project dissemination strategy builds on three levels or stages of dissemination: awareness, involvement and action.



Map with the installed captor nodes

The social embeddedness in the community of CAPTOR participants will not only be supported by face-to-face events but also by community platforms (local CAPTOR platforms, mobile app and website) that will visualise the collected data and foster the sharing of experiences, learning, stories and ideas on solutions between all stakeholders involved. Important elements in each national campaign are the mass media strategy and street actions in order to reach the wider public. Social media and online activities are an additional important



Anna Romeu, CAPTOR Volunteer in a television interview about the project

element and need to be connected to the local communities. During the first months of the project large part of the dissemination and communication actions were carried out with more intensity in Spain (events, videos, street actions, press releases). These actions and lessons learned will be passed on to the other countries.

On the other hand several Project presentations were held in conferences at regional, national and European level and have been established networks and strategic partnerships to reinforce the impact of the project.

CAPTOR participation in events, workshops and scientific conferences (own and external events)

Activity	When	Where
Catalonia CAPTOR Allies Meeting	11 th January 2016	Barcelona (Spain)
Conference "Urban air quality - problems and possible solutions" Organized by: Generalitat Valenciana, with the collaboration of the European project AIRUSE LIFE + How to report on air quality? ESAIRE project.	February 5th, 2016	Valencia (Spain)
Organized by: Centro de Investigación en Epidemiología Ambiental, CREAL-ISGlobal	February 18th, 2016	Barcelona (Spain)
ÖSCK 2016 - Austrian Citizen Science Conference	18/19 February, 2016	Lunz am See (Austria)
Collective Awareness Platforms for Sustainability and Social Innovation. Community Meeting	18th of May 2016	Berlin (Germany)
ECSA Citizen Science Conference	May 19–21th, 2016	Berlin (Germany)
Symposium on tropospheric ozone and air quality Organized by Ecologistas en Acción	June 4th, 2016	Madrid (Spain)
ECSITE 2016 - Workshop "Partnering up for Citizen Science"	Jun 7th 2016	Graz (Austria)
"Air pollution in Osona Seminar" Presentation of the CAPTOR project and the campaign of citizens measuring tropospheric ozone levels in Osona and other areas of Catalonia	July 15th, 2016	Vic (Barcelona, Spain)

CAPTOR press releases achieved a positive impact in Spanish media and some activities was covered in local televisions, examples: <http://linkis.com/www.el9nou.cat/tvcar/kvfkt>, <http://canaltaronja.tv/osona/video/info-8-agost/> (viewing from the 9:50 minute). Among the elaborated dissemination materials, videos are an important content element for social media distribution and we are thus preparing short videos about the CAPTOR project itself and its activities. They are distributed via social media channels and the website. Providing short videos has proven to be an attractive means of communicating basic ideas towards a wider audience. **Do not miss them!**



Criticona: cycling event in Barcelona

<https://www.captor-project.eu/index.php/en/2016/05/25/criticona-cycling-event-in-barcelona/>



ART for clean air!

<https://www.captor-project.eu/index.php/en/2016/06/17/art-for-clean-air/>



Putting masks on our statues

<https://www.captor-project.eu/index.php/en/2016/05/17/putting-masks-on-our-statues/>

Contacts

Project coordinator: Jorge Garcia Vidal– email: jorge@ac.upc.edu

Stay informed and register at our website: captor-project.eu

Follow us on: [@captor_air](https://twitter.com/captor_air)

CAPTOR is a #CitizenScience project addressing ozone pollution in Europe



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 6488110.

