Summary Model: Submit before December 15th to:
iwaodours2021@olores.org

9th IWA Odour & VOC/Air Emission Conference
26-27 October 2021 Bilbao, Spain

ABSTRACT

CITIZEN SCIENCE FOR ODOUR IMPACT ASSESSMENT: RETROTRAJECTORIES ANALYSIS AND COMPARISON FOR DIFFERENT PILOT CASES IN D-NOSES EUROPEAN PROJECT

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Summary

D-NOSES project (Distributed Network for Odour Sensing, Empowering and Sustainability, dnoses.eu) tackles odour pollution through citizen science, gathering real-time odour information within the impact area of one or more odour emitting activities.

Odour observations, provided by citizens, are collected by app OdourCollect (web based, open app) and PrOlor modelling software retrotrajectory (now known as AirAdvanced) is applied to each observation to evaluate the possible source of the odour. The modelling system for the PrOlor retrotrajectory calculation is based on WRF / CALMET / TRAJ2D. The CALMET model is a meteorological diagnostic model, coupled with the WRF mesoscale meteorological model. The PrOlor System uses the lagrangian dispersion model CALPUFF and the trajectory model TRAJ2D. The TRAJ2D model is a two-dimensional model that accesses the wind data generated by CALMET and traces a series of back trajectories (or retrotrajectories) that simulate the origin of the air mass that carries the odour to a given location, in order to study the direction where odours come from.

D-Noses has implemented ten pilot cases along the duration of the project in different locations. The intention of our presentation at the IWA Conference 2021 is to present an analysis comparing the results and conclusions of applying the retrotrajectories model 6 different cases in Spain, Greece, Portugal (2 cases), Italy and Great Britain.

Indicate preference of kind of presentation

- ☐ Oral Communication
- ☐ Poster

Indicate topic of your work for the conference:

- ☐ Policy and associated regulations for odour and air quality.

- ☐ Odour/VOC measurement, monitoring&sensor technologies.
- ☐ Odour/VOC perception, impact, formation and dispersion.
- ☐ GHG emissions particulate matter and industrial emissions.
- ☐ Source characterization and odour/VOC mapping.
- ☐ Odour/VOC abatement, mitigation and neutralization.
- ☐ Odour/VOC from waste water, sewer systems and livestock.
- ☐ Air emissions and sustainable solutions for waste handling
- ☐ Community engagement, social media and citizen action.
- ☐ Other (suggest a new topic):

The scientific committee may change the session where authors propose to include their works.