



## Revisiting Odour Pollution in Europe



28 October 2021, 12:00 – 14:00 CEST

Online Event

### Hosted by MEP Maria Spyra

Co-Chair of the European Parliament Intergroup on 'Climate Change, Biodiversity and Sustainable Development'

#### Speakers:

- **MEP Maria Spyra (EPP)**
- **Rosa Arias**, Odour Expert, co-ordinator of the D-NOSES project
- **Sven Schade**, Scientific Officer, Joint Research Centre, European Commission
- **Dr. Laura Maria Teresa Capelli**, Associate Professor, Department of Chemistry, Materials and Chemical Engineering, Politecnico di Milano
- **Benoît Zerger**, Team Leader for Industrial Emissions, C4 Unit on Industrial Emissions & Safety, DG ENV, European Commission
- **Silvina Frucella**, President, AireNet Association
- **Joachim Quoden**, Chairman of the International Solid Waste Association (ISWA) European Group, and Managing Director of the Extended Producer Responsibility Alliance (EPRA)
- **Marieke Schouten**, Alderman of the Municipality of Nieuwegein, Rapporteur of the CoR opinion on the EU Action Plan: 'Towards Zero Pollution for Air, Water and Soil', Committee of the Regions (CoR)

## Welcome Remarks

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*MEP Maria Spyraiki*

***“Since the COVID-19 crisis has turned the spotlight on air quality and odour pollution, now it is the moment to discuss odour control management across the EU.”***

To start the event, hosting **MEP Ms. Maria Spyraiki** delivered her opening remarks on the seriousness of odour pollution. She explained **that indoor air quality is strongly affected by volatile compounds in the air**. Since people spend more than 90% of their time indoors last year, **indoor air quality can contribute greatly to odour pollution**. Odour nuisance is the second cause of environmental complaints, after noise, **it significantly declines one’s quality of life**. Moreover, she underlined that **indoor air quality influences the health and comfort of occupants**. Studies have shown that bad air quality negatively affects the productivity of workers and students. She then argued that **the interconnectedness of indoor air quality and odour pollution is often a symptom of broader environmental issues caused by population growth, urbanisation and industrialisation**. Odour pollution is an issue that affects all layers of the population, it affects the quality of life and harms productivity, she stressed. Thus, she stated, **odour manifestations should be considered an alert signal and a potential call for environmental impact**. Ms. Spyraiki then brought attention to what is currently being done by the EU. Odour and indoor air quality are incorporated in the Renovation Wave strategy, she flagged. Concludingly, Ms. Spyraiki argued that, since the COVID-19 crisis has turned the spotlight on air quality and odour pollution, **now it is the moment to discuss odour control management across the EU**. Following Rosa Arias’s introduction, MEP Spyraiki expressed interest to receive the outcomes of the Thessaloniki case study.

## Introduction

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*Rosa Arias, Odour Expert, co-ordinator of the D-NOSES project*

***“D-NOSES believes that impacted communities by odour pollution should be taken into account in any future policy or legislative frameworks, and citizen science can be a first-rate tool in achieving this.”***

Following MEP Ms. Spyraiki's speech, **Ms. Rosa Arias** also underlined the **influence of odour pollution on human health and its economic consequences**. She then explained how odour pollution is currently measured at EU level. **The standardised methodologies are either dynamic olfactometry**, which can only be used at emission sources **or field observations**, which measures the frequency of odours in ambient air. However, she specified, **both methods require human noses as sensors**. Importantly, **these standardised methods are top-down, lack a common EU-wide framework and do not promote transparency**. Ms. Arias then argued that **a bottom-up approach is needed** concerning odour measurement techniques. Providing citizens with the tools to monitor odour perception and turning it into data, also known as **citizen science, can complement traditional methodologies**, she urged. Ms. Arias then underscored that this is what the D-NOSES project strives to do. **It promotes public participation in monitoring and decision making on odour pollution in affected communities. Odour pollution is inherently a local issue**, and the competences to act on it differ between regions and countries. Therefore, to combat odour pollution at all levels sufficiently, **D-NOSES produced a multilevel governance model that can complement existing regulations**. Concerning the ten pilot case studies, run by the D-NOSES project, Ms. Arias mentioned that the multilevel framework worked. In these pilots, an app was used to create odour maps, which empowered citizens to record odour perceptions anywhere, anytime. Lastly, she introduced the two main policy documents produced by the D-NOSES project. Firstly, **strategic roadmaps for odour governance were published to inform policymakers about the context and situation regarding odour pollution in Europe**. Secondly, **D-NOSES provides recommendations to policymakers to create a robust legislation on odour pollution**. To conclude, Ms. Arias stated that **D-NOSES believes that impacted communities by odour pollution should be taken into account in any future policy or legislative frameworks, and citizen science can be a first-rate tool in achieving this**.

*Sven Schade, Scientific Officer, Joint Research Centre, European Commission*

*"The citizen science framework shows great potential to be applied at different administrative levels. It can help empower stakeholders to solve local issues."*

**Dr. Sven Schade** introduced the audience to **the potential of citizens science in environmental policies**. He explained that in citizen science projects, the three steps of

gathering data, validating the data, and analysing and interpreting the data are vital. **Applying the citizen science framework to environmental policies at different administrative levels can work**, he stated. Moreover, Dr. Schade mentioned that after the 2017 fitness check on environmental monitoring and reporting, **the Commission supported a study in which more than 500 different citizen science projects were analysed**. Following that, **the Commission published a staff working document on best practices in citizen science for environmental monitoring** in 2020. Among other, D-NOSES was mentioned as one of the best practices. Dr. Schade continued explaining how, during the meeting on the **AARHUS convention** on 18 to 22 October, **citizens science was included in the strategic plan for 2030**. Lastly, he stressed that finding ways to **further streamline environmental monitoring and co-creating knowledge for environment-related policy making across different administrative levels remains challenging but worth pursuing**. Moreover, **stakeholders need to be empowered to resolve local issues**, he stressed.

## Roundtable discussion

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*Dr. Laura Maria Teresa Capelli, Associate Professor, Department of Chemistry, Materials and Chemical Engineering, Politecnico di Milano*

*“Citizen science cannot solve the odour pollution problem on its own, but it needs to be integrated to odour modelling to successfully complement traditionally used odour methodologies.”*

During the roundtable, **Dr. Laura Maria Teresa Capelli** answered a question on what is an **optimal approach for characterising odour emissions and determining the exposure of communities**. She was also asked **what is missing to enrich the regulatory approach to odour pollution**. According to Dr. Capelli, since odour pollution is a complex issue, **there is no optimal solution**. She mentioned that experience has shown **that the optimal approach is to combine different approaches and to obtain as much data as possible to ultimately get a clear picture of the issue**. Moreover, she explained that currently, **odour pollution regulation in Europe is mostly based on odour dispersion modelling**. Unfortunately, dispersion modelling has great difficulty **characterising complex odour sources**. Dr. Capelli argued that

**the effective odour perception of the community needs to be taken into account.** This is where citizen science help since it allows spatially and time distributed data. She concluded that **citizen science cannot solve the odour pollution problem on its own, but it needs to be integrated into odour modelling to successfully complement traditionally used odour methodologies.**

*Benoît Zerger, Team Leader for Industrial Emissions, C4 Unit on Industrial Emissions & Safety, DG ENV, European Commission*

**“The main tool to combat odour pollution is the Industrial Emissions Directive (IED). This integrative tool covers all forms of emissions, including odour pollution.”**

**Mr. Benoît Zerger** answered a question on **what is to be expected from the commission** regarding odour pollution management in the future. **He explained that the main tool to combat odour pollution is the Industrial Emissions Directive (IED).** This directive covers **odour-prone sectors such as refineries, landfills, waste treatments and so on.** He then elaborated that **the IED is an integrative tool, it covers all forms of emissions, including odour pollution.** Specifically in the IED, **the Best Available Techniques Conclusions (BATCs) manage odour pollution levels.** BATCs cover installation-specific permits for complying with the BATC and other IED provisions. Mr. Zerger stressed that **many sectoral texts of the IED include an odour management plan.** This protocol includes actions to be carried out, timelines, clauses on odour monitoring, a protocol for response to odour incidence and an odour prevention and reduction programme. Concludingly, Mr. Zerger explained that there are odour emissions levels since 2018 in the waste treatment sector and that currently, **the Commission is working on odour monitoring for slaughterhouses and animal-by-products.**

*Silvina Frucella, President, AireNet Association*

**“It is only by citizen science that we can truly know how odour affects people. The data they provide is thus vital for policymakers.”**

**Ms. Silvina Frucella** answered a question about **the added value of citizen participation in odour pollution management** and **how to increase trust in citizen science data for odour**

**pollution.** Ms. Frucella started by stating that, since **odour pollution is really a problem only because humans perceive odour, the information that the people can provide to policymakers is vital.** Citizen science provides key data to tackle, diagnose and solve odour pollution issues. **It is only by citizen science that we can know how odour truly affects people,** she stressed. Additionally, she underlined that **citizens are happy to cooperate if it leads to improvements.** But public administration needs to be willing to work with the people too. To merely work with the industries to uphold the business as usual scenario is unacceptable, she argued. Lastly, Ms. Frucella stated that **it is time to invoke regulation based on the people's needs.**

*Joachim Quoden, Chairman of the International Solid Waste Association (ISWA) European Group, and Managing Director of the Extended Producer Responsibility Alliance (EPRA)*

***"Citizen science projects are fully supported by ISWA, I hope it will be incorporated further into European legislation."***

**Presenting the industrial perspective, Mr. Joachim Quoden** answered questions on whether **citizen science for monitoring odour pollution can be an asset to the management of the waste sector** and if citizen participation can boost a sense of co-responsibility in the move to zero waste. Mr. Quoden first stressed **that citizens are key to the waste sector** since the sector relies on the citizens to sort waste at home. It is inescapable that waste plants smell, but if waste is not sorted properly, odour pollution will increase, he said. Moreover, **he underlined the importance of keeping up with the latest technologies to avoid unnecessary odour pollution.** Concludingly, he stated that **citizen science projects are fully supported by ISWA, and he hopes it will be incorporated further into European legislation.**

*Marieke Schouten, Alderman of the Municipality of Nieuwegein, Rapporteur of the CoR opinion on the EU Action Plan: 'Towards Zero Pollution for Air, Water and Soil', Committee of the Regions (CoR)*

***"The Zero Pollution Stakeholder Platform, aimed to reach a common vision on Zero Pollution objectives, can be useful in making odour pollution higher on the Commission's agenda."***

**Ms. Marieke Schouten** answered a question concerning if odour pollution has been on the agenda of the CoR and how odour pollution can be managed from a regional perspective. She started by stating that **in the EU the Zero Pollution Action Plan**, which also includes the revision of IED, **odour was not mentioned as a separate topic**. However, **in the synopsis consultation, there is a reference to odour pollution**. As Rapporteur for the Zero Pollution Action Plan opinion (final approval planned for January 2022), she said she will assess the possibility to mention odour pollution specifically. Last year, **the CoR published an opinion called: Towards Sustainable Neighbourhoods and small communities – environmental policies below municipal level**. This opinion **highlights the role of small communities in environmental policies**, and can thus be connected with the discussion on odour pollution. She moved on by explaining that **an additional tool to manage odour pollution from a regional perspective is the Habitat Directive**, which is aimed to protect the Natura 2000 areas. Lastly, **the [Zero Pollution Stakeholder Platform](#)**, aimed to reach a common vision on Zero Pollution objectives, can be a forum for raising pollution issues such as odour, Ms. Schouten argued. She then underlined **that the registration to the platform** would still be open until the 3rd of November 2021 and the **first meeting of the Platform Group will be held on the 16<sup>th</sup> of December 2021**.

## Panel discussion and Q and A with the audience

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**Ms. Schouten** opened the panel debate by asking, **since air pollution is often higher on the agenda than odour, how intervention on air pollution can be used to tackle odour pollution too**. **Dr. Capelli reacted by explaining that odour pollution is difficult to monitor since it is a sensation**. She argued that **we need to be able to unquestionably quantify odour pollution**. Educating people about the fact that odours can be measured and quantified helps to include citizens in the legislative process. **Ms. Arias agreed**. **Mr. Zerger added that odour- and air pollution are highly interconnected**. A clear example would be ammonia. **Dr. Capelli then argued that is imperative that odour pollution is not reduced to single compounds**. The mixture of molecules leads to the perceptive odour that people smell, thus talking about single compounds would oversimplify the problem.

**Mr. Schade** asked the panellists how to deal with protection biases in citizen science projects. How can all citizens be included evenly in data collection and how can this lead to reliable data, he asked. **Ms. Arias explained that the D-NOSES always uses a highly integrative approach.** D-NOSES adapts the data collection tools to increase accessibility. For example, for those with no smartphone and those that are digital inept, the odour monitoring app is adapted to a paper version. **Dr. Capelli stressed the importance of data validation to filter out unusable data.** **Ms. Frucella highlighted that informing people how to identify which type of odour comes from what source, can help make the data more reliable.** Citizen science is a tool for all to contribute to the research, she argued. It was underlined that **after the data collection, the data has to be validated scientifically.** **Ms. Arias added that citizen science is also based on creating dialogues and increasing trust.** Moreover, several projects from D-NOSES showed the validity of citizen science data sourcing. **Ms. Frucella added that indeed citizen science is a valid data sourcing tool according to scientific research.**

For her final remarks, **Dr. Capelli** stressed the importance of **standardising the method** by which citizen science can be integrated with current regulatory approaches. **Mr. Zerger** explained that **the EU does play a role**, but that this role will always be **complementary to local regulatory tools** when it comes to odour pollution. In his closing remark, Mr. Benoît Zerger also said that **D-NOSES is a clear example of what citizen science can do at local level and shows the complexity of the legal frameworks.** One aspect he found interesting in D-NOSES was the digital part and the co-creation of maps for odour monitoring and he considered that the D-NOSES methodology is something the European Commission can investigate. **Ms. Frucella urged the European Parliament to help create regulations and concrete solutions while keeping the will of the people in mind.** **Mr. Quoden** stated that **ISWA fully supports citizen science.** He moreover stressed that **regional differences should be kept in mind** when creating or amending legislation. **Ms. Schouten invited all stakeholders to join the Zero Pollution Stakeholder platform.** Lastly, **Mr. Schade highlighted the role of public authorities on different administrative levels.** He argued that a systemic setup to test legislation before it is put in place and to ultimately achieve local solutions, is needed.



## Closing Remarks

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*Rosa Arias, Odour Expert, co-ordinator of the D-NOSES project*

***“We are calling for action to recognise odour as a pollutant by the EU and that it will be incorporated in EU Legislation.”***

In her final remarks, Ms. Arias highlighted once more the importance of odour pollution by stating that odour pollution is the second cause of environmental complaints across Europe. It affects the quality of life and has negative economic impacts. **A common legislative framework across Europe is needed**, she argued. **The green paper and the strategic roadmap for odour pollution, published by the D-NOSES project, can help create that legislative framework.** However, we have a long way to go, since odour pollution is not tackled in the Zero Pollution Plan, nor the European Green deal. **Ms. Arias continued by saying that odour pollution is an underrepresented concern** since it is not yet recognised as a pollutant. Additionally, she urged the EU to hear the voices of the affected populations. **Citizens need to be incorporated into the dialogue**, she stressed. Concludingly, **she highlighted that the D-NOSES project has shown that citizen-generated data is an excellent tool to complement existing measurement techniques to better understand odour pollution, and work towards solutions, with the participation of all parties.** We are therefore **calling for action to recognise odour as a pollutant by the EU, and that it will be incorporated in EU Legislation.**