

# USING CITIZEN SCIENCE TO ADDRESS ODOUR CONCERNS

---

Odour is the second leading cause of citizens' environmental complaints across Europe<sup>1</sup>. WHO recognises that odour nuisance affects people's quality of life and therefore wellbeing.

Traditional odour monitoring methods are often costly, can be opposed by industries and do not consider how odours are perceived by neighbouring communities.

A citizen science approach to generate odour maps with **real time odour observations** can **supplement** or even **replace some existing** monitoring procedures.

A **collaborative** and **transparent** approach to tackling odour pollution with the active involvement of key stakeholders (public, industry, civil society) can increase trust, reduce costs and help to seek solutions that lessen the impact on affected communities.

- ✓ New sets of data from the point of the view of the receptor
- ✓ Inform environmental authorities and emitting activities to aid decision-making and targeting resources



<sup>1</sup>Pollutions olfactives: origine, législation, analyse, traitement. L'Agence de l'environnement et de la maîtrise de l'énergie (ADEME). Dunod, 2005.

# CASE STUDY

---

Over a period of 14 months Mapping for Change engaged with key stakeholders in Southall and Hayes, London, to address the issue of odours in the area.

Southall and Hayes are two neighbouring areas of high deprivation in London. It is an area with a long history of industrial activities and potential odour sources.

Residents here have been complaining of odours for years, originally from an asphalt plant but most recently from the redevelopment of a former gasworks site.

Responding to residents' concerns, the local air quality has been investigated but it was found not to be a public health concern<sup>2</sup>, although this has been disputed by residents.

The residents consider the current odour complaints procedure to be inadequate, and therefore odour events could be being under-reported. This under-reporting could lead to the industries having little awareness of any odour nuisance.



Well-being scores in Southall Broadway lower than national average<sup>3</sup>



Various potential odour sources



Fuzzy boundaries of residential and industrial areas



An active campaign group



Willingness of local authority and industries to participate

<sup>2</sup>[https://www.ealing.gov.uk/info/201163/regeneration/2613/southall\\_waterside/5](https://www.ealing.gov.uk/info/201163/regeneration/2613/southall_waterside/5)

<sup>3</sup><https://data.ealing.gov.uk/wp-content/uploads/Population-characteristics-JSNA-2017.pdf>

# COLLABORATIVE APPROACH

The process began with identifying the key stakeholders and initiating an **open dialogue** to understand the different and conflicting perceptions; current practices in the monitoring and management of odours; and current data availability. The stakeholders included odour emitting industries, local authorities and residents.

Incorporating the actors' concerns and aspirations, we **co-designed** a citizen science project to better understand the extent and sources of odour, and the potential area of impact. This required the commitment and participation of all actors throughout the process.

Members of the community collected data for over 12 months by reporting odours, and **no odours**, via a **free mobile application** (OdourCollect) which is based on the German standard VDI 3940 (CEN 16841).

	REGISTERED USERS: 41
	REPEAT USERS: 19 (3+ RECORDS)
	TOTAL OBSERVATIONS: 487

Mapping for Change analysed and visualised the data to feedback to all of the stakeholders on a regular basis as part of the ongoing engagement process.



Stakeholder mapping to ensure key actors are represented



Frame the problem to better understand the issue from multiple perspectives



Design the process to identify what data should be collected and how



Data collection by deploying a protocol and necessary tools



Action to co-create measure amongst the stakeholders

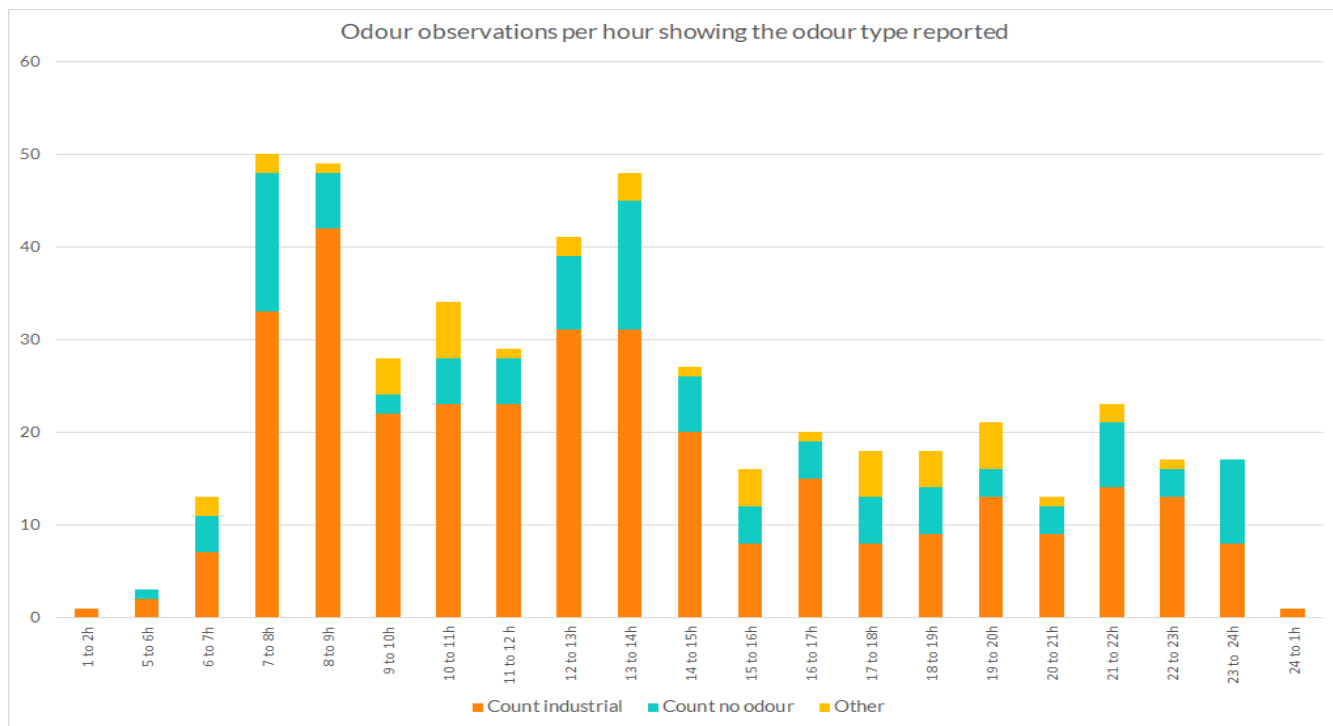


Outcome to identify the actions that have been undertaken and lessons learned

# MAKING SENSE OF THE DATA

The odour observations made via the OdourCollect app mainly comprised industrial odours, and specifically oil/petrochemical or asphalt/rubber. Residents also reported when there was 'no odour'.

Data sharing and liaison with the industries confirmed the weekly and daily patterns of observations 'made sense' based on the asphalt plant operations, e.g., more reports early morning when production is high and fewer reports when activity is winding down between 1pm and 4pm. A peak in observations on one specific day was tracked back to the resurfacing of an access road at the redevelopment site.



Mapping for Change has kickstarted a much-needed collaborative journey to tackle the problem of odours in Southall. Bottom-up approaches using citizen science to tackle odour issues provide an affordable, accessible and reliable way of monitoring odour, providing evidence for citizens, industry, researchers and policy makers in an open and transparent manner.

# OUTCOME

The data highlighted that odour was an issue and new procedures were needed to address this. As such, the local authority agreed to adopt and promote the use of OdourCollect to supplement its existing complaint procedure.

The daily patterns in odour reports enabled the Council to assign increased, targeted resources at specific times to investigate odours. To further facilitate this, a real-time email alert of odour reports from the app is received by both the industries and local authority so that any incidents can be investigated immediately and industry activities can be checked.

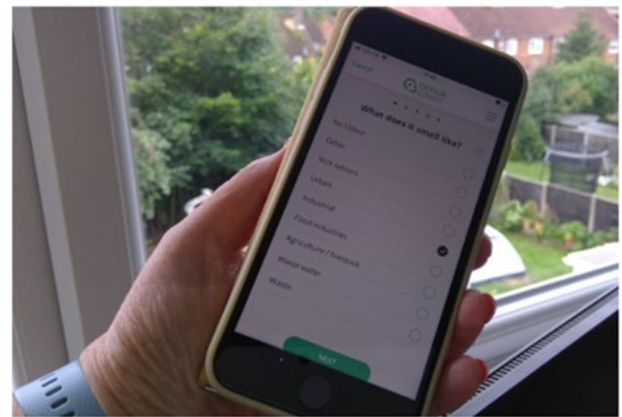
The engagement process uncovered a lack of trust and transparency that had built up over many years. In agreement with all the stakeholders, a roundtable discussion was organised and facilitated by Mapping for Change. The roundtable included representatives from industry, the Council and local residents and was the first time that all had come together to address the situation.

It provided a space to hear the different perspectives firsthand and explore how to work together to address some of the issues raised. An agreement to act upon the odour reports in a timely manner was crucial, but also to increase communication.

Information on when there might be unavoidable odour emissions, the causes of the odour and how reports are being investigated will be available on the Council website to improve trust, transparency and reassurance among residents.



Home > Odours in Southall: New officer appointed



## Odours in Southall: New officer appointed

NEWS

6 August 2021

Following ongoing concerns about odours in Southall raised by local residents, the council has appointed an environmental protection officer who will be on the spot to respond when concerns are reported.

The officer will be based in Southall and will respond to odour complaints during core hours (8am-4pm, Monday-Friday). Further recruitment is ongoing to allow for operational hours to be extended.

To allow the officer to respond to reports of odour, residents are asked to report it at the time of smelling it using either via the [Odour Collect App](#) or by emailing [southalloodours@sealing.gov.uk](mailto:southalloodours@sealing.gov.uk), both of which notify when an odour is reported so action can be taken promptly.

Residents can also call 07971 988907 and leave a message between 8am-4pm, but for prompt action it is best to report via the app or email.

Outside of the core hours of 8am-4pm, residents can also report through the out of hours reporting line on 020 8826 8111