

Tracking down odours with the “sniffer app”

InfraserV Höchst will provide information to interested members of the public on the odour measurement programme tour on 8 May

Mohamed Amhamdi does not live in Sindlingen, but he really knows his way around the streets in the immediate vicinity of Höchst Industrial Park. Two or three times a month he is out and about in Lachgraben, Gustavsallee and Küferstraße, sometimes in the morning, then again in the evening or even in the middle of the night. His job: sniffing. The 26-year old is one of the inspectors who takes odour measurements in the vicinity of the industrial park for Olfasense GmbH on behalf of InfraserV Höchst. There has been a measurement programme providing objective data on the odour pollution in Sindlingen and Kelsterbach since 2007.

It seems a bit strange the way Mohamed Amhamdi stands at the corner of the street between Pfungstbornstraße and Am Lachgraben, stares at his mobile phone and repeatedly takes a deep breath. The mechatronics student stands almost motionless in one spot for ten minutes wearing a bright orange high visibility vest. In ten second cycles he uses a special app developed by Olfasense for their own employees to document whether he detects an odour and if so, what kind of odour. “It is very easy to distinguish whether it smells of the waste treatment plant or chemicals”, confirms the Olfasense inspector, who has been out and about in the area around Höchst Industrial Park on behalf of the Kiel-based institute since 2016. And how often does it smell unpleasant? “This varies considerably. Sometimes there is nothing, sometimes I smell the same odour at several measuring points and then again only at the street corner”, states Mohamed Amhamdi. “Sometimes I can smell it for a few minutes and then it is gone again.” The experts speak of “wave-like odours” when the odour-laden air is forced down due to special meteorological conditions and is noticeable for a short time in individual streets.

When the 26-year old walks along one of a total of four defined routes he has to register at each individual measuring point with his mobile phone using a GPS signal and also specify the meteorological data that is later validated and checked once again by Olfasense. The wind direction is of course particularly important – if the wind is blowing from a westerly direction, no odours from the industrial park can reach Sindlingen.

More measurements than necessary

Mohamed Amhamdi works for Olfasense GmbH. The company founded in 1996 has 20 permanent employees and approx. 65 inspectors throughout Germany and specialises in odour and olfactory studies in addition to the design and sale of measurement equipment. The Kiel-based company works all over Germany on behalf of communities, authorities and plant operators. Their studies are based on established Europe-wide procedures. Consequently, the frequency of odours in a year can be determined on the basis of 104 measurements. “We take measurements in Sindlingen and Kelsterbach 365 days a year - far more than is necessary - on behalf of InfraserV Höchst in order to increase the measurement accuracy” explains Bettina Mannebeck, managing director of Olfasense GmbH.

Strict rules for “normal noses”

The Olfasense inspectors invariably work on a part-time basis. Many of them are students, like Mohamed Amhamdi, who lives in Gallus and studies at Technische Universität Darmstadt. Before he started “sniffing” for Olfasense he had to take a test: he had to “smell” a standard substance in different concentrations on three different days. “We are not looking for super noses, i.e. people who are particularly sensitive to odours, but simply people who normally have a distinct sense of smell”, explains Bettina Mannebeck. This is the only way to make the subjective impression of odour perceptions objective. The inspectors have to take a test twice a year to ensure that their sense of smell has not changed. There are also strict rules for Mohamed Amhamdi and his colleagues. Coffee, cigarettes, spicy food and fragrant cosmetics are not permitted 30 minutes before starting the measurements.

Infraserv Höchst invests millions in odour reduction measures

Every day Mohamed Amhamdi and his colleagues are out and about in all weathers day and night in Sindlingen and Kelsterbach – Infraserv Höchst spends a considerable amount of money on the measurement programme. The company operating the industrial park invests an average five-figure sum in the measurements. Why? “There is no doubt that emissions are released from the waste disposal facilities in the west of the town that leads to unpleasant odour pollution in Sindlingen”, states Joachim Kreysing, managing director of Infraserv. “We have been involved in reducing these emissions for years and have invested several million euros in the different measures.” For example, we enclosed the sewage sludge silos, constructed a new exhaust air purification plant and changed the routing of the exhaust air from the sewage sludge incineration facility in the past few years. “The measurement programme coordinated with the authorities should provide information as to whether the measures are successful”, states Dr. Kreysing.

Values have declined sharply

Dr. Guido Schmitt, head of environmental protection at Infraserv Höchst, analyses the Olfasense results together with Dr. Anke Reining, head of the odour measurement programme. “The values have declined sharply compared with at the beginning of the measurement programme”, explains Dr. Schmitt. The average annual values were in a range of nearly 15 percent at the beginning, i.e. odours were registered in approximately every seventh measurement. The values, which can be found at www.ihr-nachbar.de, now fluctuate between three and five percent. This is a significant improvement for the residents affected but not yet an ideal situation. “The wind often blows from an easterly direction especially when it's nice weather and the residents spend time outdoors and have their windows open. If there are any odour emissions at this point, it is annoying for the people affected”, confirms Dr. Anke Reining.

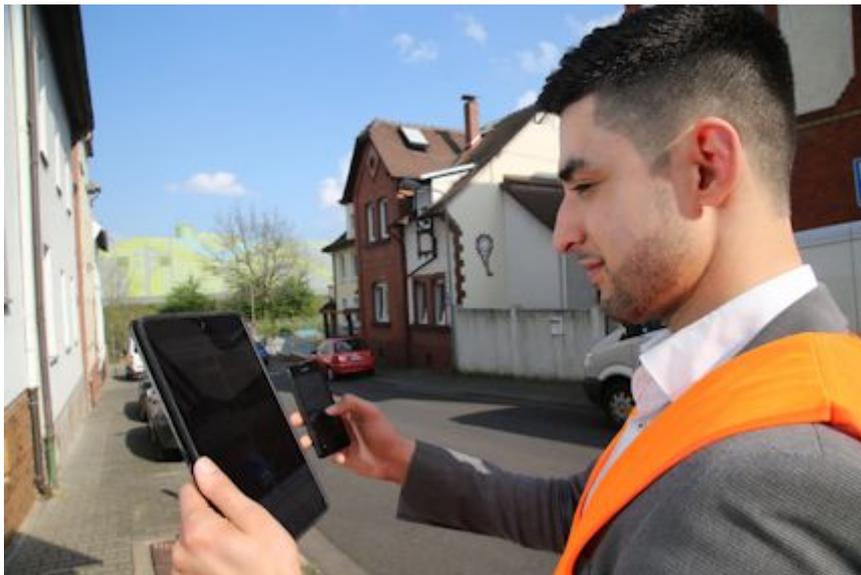
Complaints are checked out

Complaints are then also sometimes made to the public hotline at the industrial park where

they are all registered and processed. Infracserv Höchst employees usually head over to the area in the vicinity of the industrial park and check out the situation and checks are made at the waste disposal facilities at the same time to determine possible odour sources. “Any information is valuable. We try to locate the cause of odour emissions in each case”, confirms Dr. Schmitt. However, Infracserv Höchst always makes it clear: It is impossible to make the waste disposal facilities a completely odour-free operation! This is also emphasised by Dr. Joachim Kreysing: “Odours can never be completely excluded wherever waste water or sewage sludge is treated. But we will continue to do everything in our power to reduce the pollution for residents.”

Odour tour for interested members of the public

Interested member of the public can join an odour tour on Monday 8 May. The meeting point is at the west gate of Höchst Industrial Park at 5:00 pm. From there the tour will initially head onto the site where experts from Infracserv Höchst and Olfasense will explain the measurement programme. An Olfasense inspector will then show the participants how the measurements are taken. Infracserv representatives will also be available to answer questions from the interested members of the public. It is possible to register up until 5 May by E-mail at kommunikation@infracserv.com.



Mohamed Amhamdi is one of the inspectors taking odour measurements in Sindlingen and Kelsterbach and documenting the results. © Infracserv GmbH & Co. Höchst KG

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