# Curriculum





Frans Vossen
Renowned Odour Expert/
Director Olfasense B.V.

+31 20 6255104 fvossen@olfasense.com Professional Experience

- > 30 Years
- > 2000 Studies

### Education

Master in Biology and Environmental Sciences at the University of Utrecht

## Renowned Odour Expert

Frans is an internationally renowned odour expert. He performs a several hundred odour and environmental impact studies per year in various industries for the private as well as the public sector in the Netherlands and worldwide.

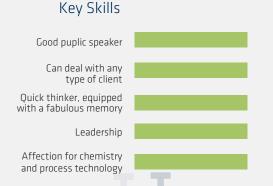
Frans was also member of relevant odour working and standardisation groups.

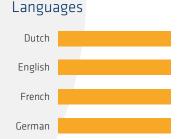
## Key Areas of Expertise

- Extensive experience in all phases of odour studies across all kind of industries all around the world
- Detailed knowledge of worldwide odour policy and regulations
- Active member in working groups for the standardisation of olfactometry
- Odour measurement techniques
- Odour Control Plans
- Odour Abatement Techniques
- Chemistry of environmental odours

## Reference Clients

- Empresa Nacional del Petróleo (Chile)
- · Ecopetrol Colombia
- Total
- BP
- Veolia Water
- Rendac (Rendering)
- Dutch Ministry of Environmental Affairs
- and many other public and private institutions







## Frans Vossen



## **Public Reports**

Dose - relationship study for intensive livestock farming odours

Branch study for the leather industry

Branche study for the meat industry in the Netherlands (slaughterhouses, rendering industry, fat smelters, smokehouses for meat processing),

Branch study for the Dutch water companies covering all municipal waste water treatment plants.

Evaluation of the Dutch odour immission limit concentrations (ordered by the Ministry of Environmental Affairs).

## Memberships & Committees

#### Currently

- Member of NLingenieurs (Dutch association of consulting engineers)
- Member of VVM (Dutch association of environmental engineers)
- Member of VDI (Verein Deutscher Ingenieure)

#### 2004 - 2011

Member of the German Committee working on the standardisation of odour sampling methods VDI3880

#### 2002 - 2005

Member of the Dutch Committee working on standardisation of hedonic tone measurements NVN2818

## **Odour Studies**

## More than 2000 studies since 1984, some of the most relevant include:

#### Rendering

- 2015 now: Odour consultant for HaEmek Offal recycling, Afula (Israel)
- 1990 now: Odour consultant for the Dutch and Belgian rendering industry: Rendac and Sonac (4 large pants processing 1,3 million tons annually). Olfasense B.V. carried out all the odour measurements during the last 30 years and was intensively involved in improvement of the odour abatement.
- 2017: Odour study for CAMPOaves (rendering of chicken by-products, Portugal)
- 1997 2002: Odour consultant for Ronan Industries (Ireland)

### Wastewater

- 2002 now: Odour consultant for Veolia Water (OTV) for their international projects (waste water treatment plants) in Abu Dhabi, Bahrain, Qatar, Budapest and the Netherlands (WWTP La Haye).
- 2000 now: Several odour studies for water companies in UK, France, Spain, Belgium (municipal sewage) and for industries with their own wastewater treatment plants
- 2019/2020: Complete odour study for the renewed WWTP Utrecht (Netherlands) with Nereda® technology

#### Waste

• 1990 – now: Odour consultant for a large number of national and international companies which are responsible for waste disposal (landfills), waste composting (household waste, green waste), methanisation (liquid waste and manure), solid waste) and waste incineration processes and facilities

### Refineries

- · 2020: Odour assessment study for Yanbu industrial city (Saudi Arabia) commissioned by the Royal Commission for Yanbu and Jubail
- 1994 2020: Several odour studies for BP Refinery Rotterdam
- 2017/2018: Odour assessment study for 2 petrochemical and industrial sites in Qatar (Ras Laffan, Mesaieed) commissioned by Qatar Petroleum
- 2017: Odour assessment for 3 Hellenic petroleum refineries in Greece (Athens and Thessaloniki)
- 2016: Odour assessment study for PKN Orlen in Plock (Poland)
- 2015: Odour study for Ecopetrol Colombia
- 2013: Odour study for HPCL-Mittal refinery in Punjab (India)
- 2013: Odour study for Kuwait (Rotterdam) as part of environmental assessment study for the extension of refinery with a hydro-cracker
- 2009: Odour study for CEPSA refinery, Tenerife

