



## Evaluation of Electronic Noses for Online Control of Odour Emissions from Sewer systems

### Project Partners



### Context

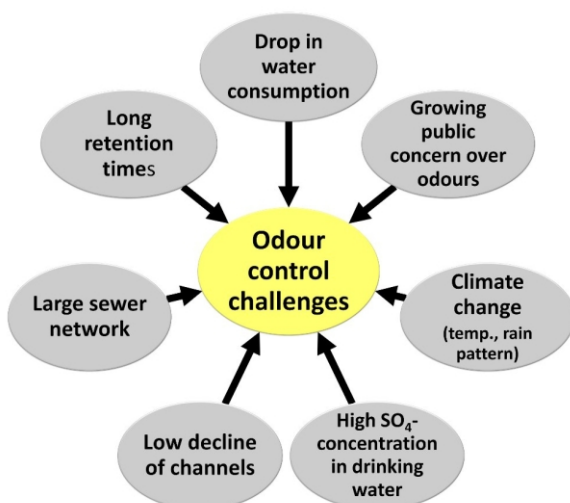
In recent years, a constant decline in domestic water consumption together with other demographic, climate-related and social factors have led to prolonged retention times of the wastewater, anaerobic conditions and increased microbial activities in the sewer system. As a consequence, intensive odours are released into the streets. Reliable data relating to the specific character and intensity of odours are important prerequisites for the systematic planning and implementation of corresponding countermeasures. Novel measuring systems, so-called electronic noses, have been developed allowing for the constant detection and recording of odour emissions. These multi-sensor systems, primarily used for sensory tests in the food processing industry so far, are expected to facilitate continuous odour monitoring at the problem areas of sewer networks.

### Objectives

- Systematic exposure of the e-noses to different process conditions in a sewer research plant
- Performance assessment by means of a multi-criteria evaluation
- Evaluation of the applicability for sewer odour management

### Work packages

- Market review on available electronic noses
- Tests of 4 electronic noses at the sewer research plant of Berliner Wasserbetriebe
- State of the art review on odour control technologies



Factors contributing to elevated odour emissions



Sewer research plant of Berliner Wasserbetriebe. Site for the test of electronic noses

Duration: 10/2010 - 06/2012

Project Volume: 401,950 €

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