



Tasks and objectives of KomS

- Support operators of wastewater treatment plants** with the introduction and supervision of technologies for the removal of micropollutants as well as their operational optimisation and performance monitoring.
- Establish and further develop processes** for the removal of micropollutants.
- Transfer knowledge** between all parties involved in the field of municipal wastewater treatment: Operators of wastewater treatment plants, authorities, engineering consultants, scientific expert groups as well as industry and specialist associations.
- Promote the technological implementation** of removal processes.
- Clarify and raise awareness** on the topic of 'micropollutants and their environmental impact' based on scientific knowledge

Micropollutants Competence Centre (KomS) Baden-Württemberg

The Micropollutants Competence Centre (KomS (abbreviation for 'Kompetenzzentrum Spurenstoffe' in German)) Baden-Württemberg is dedicated to the build-up and transfer of knowledge regarding the subject of micropollutants and their removal from wastewater. In addition, it considers itself a platform for the exchange of information and experiences regarding the process-technical implementation. KomS is a cooperation between the University of Stuttgart, Biberach University of Applied Sciences and the Baden-Württemberg chapter of the DWA and is funded by the Ministry of the Environment, Climate Protection and the Energy Sector of the federal state of Baden-Württemberg.

Micropollutants Competence Centre (KomS) Baden-Württemberg
 KomS – Knowledge development and analysis, consultation and operational support provided by the University of Stuttgart and Biberach University of Applied Science.

c/o University of Stuttgart, Head: Dr.-Ing. Steffen Metzger,
 Bandtäle 2, 70569 Stuttgart, Tel +49(0)711. 685-65420,
 Fax +49(0)711. 685-63729, info@koms-bw.de

KomS – Communication and events in the DWA regional chapter
 The Kompetenzzentrum Spurenstoffe (KomS) Baden-Württemberg is not a legal entity. All three cooperation partners act on their own behalf and on their own account.

c/o DWA Landesverband Baden-Württemberg
 Dipl.-Vww./Bw. André Hildebrand, Managing Director,
 Rennstraße 8, D-70499 Stuttgart, Germany,
 Tel +49(0)711. 896631-0, Fax +49(0)711. 896631-111
 info@dwa-bw.de, www.koms-bw.de

The Competence Centre Trace Elements (KomS) Baden-Württemberg is not a legal entity. All three cooperation partners act respectively on their own behalf and on their own account.



Following the trail of substances



Micropollutants Competence Centre – KomS Baden-Württemberg

Micropollutants and their removal from wastewater
 Knowledge and technology transfer – exchange of experiences – awareness training

KomS Baden-Württemberg – three organisations, one strong partner



Sponsored by:



Baden-Württemberg
 MINISTERIUM FÜR UMWELT, KLIMA UND ENERGIEWIRTSCHAFT

www.koms-bw.de

Following the trail of substances

Our background

Our wastewater is polluted with a **multitude of synthetic residues** originating from pharmaceutical products, household chemicals and cosmetic care products, dietary supplements and others. Thanks to further developed analytical methods, it is now possible to identify these micropollutants in a more differentiated way. Conventional technical wastewater treatment processes are not able to remove specific substances in a targeted way or often only to a small extent. Therefore, these substances enter the environment, where they are degraded only very slowly or not at all. The effects of such micropollutants on and resulting interactions with ecosystems and organisms are currently not foreseeable. Therefore, along with awareness training in the community on this topic and based on the idea of prevention, **the removal of micropollutants** from wastewater is of crucial significance.

To date, various wastewater treatment plants in Baden-Württemberg have been retrofitted with an additional treatment stage for the removal of micropollutants based on the findings from investigations carried out on a semi-industrial scale. In this context, activated carbon processes are currently employed for the removal of micropollutants, which are considered to be suitable processes for the removal of micropollutants from wastewater besides ozoning. The **Kompetenzzentrum Spurenstoffe – KomS – Baden-Württemberg** was established in April 2012 along with the first expansions of the wastewater treatment plants and in order to support the operators.

Our structure

The **KomS** is a **cooperation** between three independent partners: The **University of Stuttgart** and **Biberach University of Applied Sciences** contribute their scientific competence and technical knowledge to the further development of the process technology as well as to the documentation and analysis of measurement results. The **Baden-Württemberg regional chapter of the DWA (DWA-BW)** is responsible for the wide spectrum of communication, specialist events and excursions as well as advanced training within the neighbourhoods.

Our services

The competence centre regards itself as a **platform for the transfer of knowledge and technology** and for the **exchange of experiences** regarding the topic of 'Micropollutants in wastewater and approaches to their removal'. We consider ourselves a **point of contact across all levels**: we communicate and collaborate with **authorities** and the **industry** in the same way as with **engineering consultants** or **specialist personnel at treatment facilities**. **KomS provides the following services to municipalities and wastewater associations** as facility operators:

- On-site consulting
- Process technical and scientific assistance
- Training of specialist and operating personnel
- Support with public relations

The neighbourhood concept is a major part of KomS' work, which aims at the exchange of experience, networking and joint action. Thus, it is not without reason that the concept has proved its value with regard to the operation of wastewater treatment plants for more than 40 years.

Baden-Württemberg's role

With regard to the removal of micropollutants, the federal state of Baden-Württemberg assumes a pioneering role and has attached major importance to the subject from the very beginning, also in the light of the related environmental-political dimension. Thus, in the past years, the Baden-Württemberg Ministry of the Environment, Climate Protection and the Energy Sector funded various projects for the development of an additional treatment stage for the targeted removal of micropollutants from wastewater, in the total amount of more than ten million Euro. The Ministry has provided substantial development funds for the establishment of the Kompetenzzentrum Spurenstoffe Baden-Württemberg.

KomS' significance

Being considered an 'end-of-pipe' technology, the removal of micropollutants from wastewater treatment plants alone will not be able to solve the problem of increasing environmental pollution caused by micropollutants. This objective requires interaction by introducing more specific measures, such as raising the awareness of the community, industry and consumers. KomS has assumed responsibility for the task of performing further research on the removal of micropollutants, optimising the process technology and accompanying and assisting with its implementation into the operation of wastewater treatment plants in the federal state.