

## CHALLENGE

A disturbance in the industrial process, i.e. when wastewater of abnormal quality or quantity is suddenly discharged to the municipal wastewater treatment plant (WWTP), cause specific challenges for the treatment process at the WWTP. In these situations in addition to monitoring instruments, also well-functioning and clear communication between the municipal WWTP and industry is crucial and it is decisive to agree on the course of action.

## SOLUTION: REGULAR BILATERAL COMMUNICATION BETWEEN WWTP AND INDUSTRY

Bilateral communication between the industry and municipal WWTP regarding industrial production phases and process steps is a well-functioning modern method to prevent any unexpected problems for the water treatment process at the municipal WWTP.

In food factories for instance, the content and quality of waste water discharged to the municipal WWTP varies along with the production process and its phases (e.g. differing components are produced and refined, the used substances vary and equipments are washed using differing detergents). Commonly, food factories have a time plan for the production process, and can thus predict the quality of their wastewater discharged to the municipal WWTP. Informing the operators at WWTP about the fluctuating waste water quality and quantity gives the municipal WWTP time to react and change the treatment process accordingly to the incoming industrial waste water and thus prevent process disturbances and instead increase treatment efficiency.

## IMPLEMENTATION AND HISTORY OF THE TOOL

Bilateral cooperation in the Kaliningrad region, Russia, was established through an agreement in Sovetsk Municipality between a food factory and municipal WWTP with membrane system water treatment. In accordance with the agreement, the food factory informs the operator of WWTP of the industrial production process as well as quality and quantity of discharged waste water in advance. In the receiving chamber at the municipal WWTP, operators use special reservoirs for any challenging inflow. These reservoirs are then emptied for treatment, when the process has capacity and potential for this water.

