

Avedøre Wastewater Plant

Avedøre Wastewater Services (AWS) ensures that the wastewater from an urban area (ten municipalities) measuring 400 km² is thoroughly treated before being released to the recipient, Køge Bay. The company's responsibilities mainly comprise the operation and maintenance of wastewater and sludge incineration facilities corresponding to 345,000 person-equivalents, and the operation of the main lines, pumping stations and rainwater reservoirs for a 2,300 km pipe network. The company receives and treats roughly 25 million m³ of wastewater annually.

AWS is a very good example of achieving great success by linking research and development activities into a very practically-oriented organization and could be an inspiration to others. One of such examples is the recent project called "OpDrift", where the standard design rules were challenged by thorough investigations combined with academic analysis resulting in great energy savings of 750 MWh/year and improved effluent quality with economical benefit of reducing the discharge taxes the plant has to pay. The improvements have been achieved without any physical extension to the plant and are due to better process control through better use of ICA.

AWS is currently involved in many research and development projects such as effect of climate changes (Stormwater Informatics "SWI"), demonstration of use of lifecycle assessment (UMIP-DEMO), environmental effective advanced technologies for treatment of overflow and wastewater (MILTEK). To strengthen the research and development activities in the wastewater sector AWS along with *Lynettefællesskabet* (Denmark's largest wastewater services with 1,1 million person-equivalents) and *Copenhagen Energy* (responsible for water supply in Copenhagen and to a number of surrounding municipalities and for the transport of sewage to the wastewater treatment plants) started a collaboration "*Copenhagen R&D*" with a target of developing environmentally friendly technologies for the operation of wastewater treatment and sewage transport.

Website: <http://www.wastewaterservices.net/>