# WQM-Scan & WQM-eScan

**WQM-Scan** is a (utility-wide) scan of a (waste)water treatment process or river basin which provides an overview of the possibilities of deploying online sensors and monitors throughout the entire process or catchment area.
The WQM-Scan follows a two-step approach: 1) an analysis of all (online/on-site) sensor technologies applied in the production and distribution process to assess the monitoring strategy and procedures currently applied; 2) an evaluation of the overall treatment and/or distribution process in order to identify suitable parameters and monitoring locations which can contribute to further process control and optimisation.
These step aims at identifying cost savings via the optimisation of e.g. maintenance regimes and a reduction of downtime, and optimising the treatment process itself with regard to the use of chemcials and energy in order to save money.

**WQM-eScan** is a remote analysis of treatment processes using an online questionnaire to determine online water quality monitoring requirements by obtaining data on current operational goals and processes. The answers (e.g. with respect to location and geographical characteristics, parameters, frequency, current monitoring practices, etc) enable Benten to analyse possibilities for improvements and/or provide a plan of action based on best-practice solutions, its considerable expertise in online monitoring and scientific articles and papers.

# WQM-Data

The overall objective of collecting water quality monitoring data is to obtain relevant information on the basis of which management or operational decisions can be taken. Collecting the right data and converting (large amounts of) water quality data into relevant information is not an easy task. Benten provides tailor-made support on the entire data management process, from collection to interpretation and reporting.

# WQM-Training

Benten's training courses help end-users focus on the effective application of sesnors and monitors within the context of their goals, in order to realise their full potential. Field training is also included if necessary to gain first-hand experience on the operation of the instruments in the field. We help you to deploy your monitoring equipment optimally, obtain reliable data, support your goals as a user and interpret the data efficiently and effectively.

# WQM-FOCUS

A stepwise assessment process is essential to determine whether online monitoring is the best solution for your utility. Benten has developed the WQM-FOCUS (Facilitative Outline for Choosing and Using Sensors) approach to support you in selecting the correct monitoring equipment for your organisational goals or technical problems. The approach consists of several steps to facilitate the installation and ensure effective implementation, as shown in the schematic overview below. It can be used to describe the entire procedure from defining the technical problem or organisational goal to evaluating the monitoring results.

If you are a member of the **Global Water Research Coalition** or one of its member organisations, you have access to the **Compendium of Online Water Quality Sensors and Monitors**, as developed in 2012 by an international consortium led by Benten Water Solutions. This Compendium contains a vast amount of useful information on nearly all commercially available online instrumentation for the global water and wastewater industries, including information on applications, (capital and operating) costs, and real-world experiences. It can provide essential background information for the selection process, installation and implementation of online sensors.

Using our tailor-made approach, the WQM-Scan and WQM-FOCUS combined assessment offers you the possibility to optimise existing (online) monitoring programmes within your organisation first, before proceeding to implement new equipment. Through a thorough scan of your existing (online) monitoring programme, operating and maintenance procedures and data management we jointly identify opportunities for optimisation focusing on maximising efficiency and the effectiveness of monitoring programmes, while at the same time minimising maintenance efforts and other costs, such as the use of chemicals during treatment. The results of the scan reveal if there are any gaps in your monitoring efforts, which can then be filled following the WQM-FOCUS approach described above.