



**AQUATIK - Development and validation of advanced monitoring system for control of organic priority pollutants in treated wastewater effluents**



<b>Expedient</b>	LIFE10 ENV/ES/000521	<b>Date</b>	01-SEP-2011 to 31-DEC -2014	<b>Location</b>	Cataluña (Spain)
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<b>Coordinator</b>	Cetaqua, Centro Tecnológico del Agua, Fundación Privada				
<b>Consortium</b>	Aquatec, Spain Labaqua, Spain				
<b>Objective</b>	<p>The main objective of the AQUATIK project is to test new methods and techniques for the monitoring of selected priority pollutants in water. The project seeks to develop a new automated prototype to measure pollutants discharged in wastewater effluents and related spills in quasi-real time.</p> <p>From the WFD list of priority pollutants, the project will focus on seven, including pesticides, alkylphenols and phthalates. These have been selected due to their widespread presence in waters, especially in the study area.</p> <p>The project will design and construct an automated self-controlled device for the detection of the selected priority substances. It will then demonstrate the prototype at selected trial sites at the Besòs and El Prat wastewater treatment plants (Barcelona, Spain).</p> <p>The project team will test the feasibility of using passive samplers and on-site preconcentration to determine average concentration of alkylphenols, nonylphenol and octylphenol, the phthalate DEHP, and the pesticide atrazine. The operation and performance (including economic) of the device will be evaluated and compared with traditional methods.</p> <p>It is expected that the prototype will reduce the time required to evaluate the presence and concentrations of the pesticides simazine, diuron and isoproturon. It should thus prove itself to be suitable for application on a wide scale, as a routine monitoring tool covering the sampling, filtering, detection and measurement steps.</p>				
<b>Expected results</b>	<p>Expected results:</p> <ul style="list-style-type: none"><li>• Demonstration of the validity and feasibility of instrumentation to rapidly measure concentrations of priority pollutants in water;</li><li>• Improved decision-making around pollution control, including an alert system for contamination from quasi-real time monitoring;</li><li>• Guidelines and methodologies for the selection, implementation, operation and optimization of the methodology.</li></ul>				