

EmiPoll - Emission profiles of wastewater treatment plants and evaluation of their removal efficiencies in Luxembourg

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Recently, there is an urgent need to address the environmental problems caused by micropollutants in wastewater. Remains of pharmaceuticals and biocides reach the water system and, after several steps of treatment, low concentrations of these compounds can still be found in drinking water. In the framework of environmental protection, the elimination of micropollutants in wastewater treatment plants (WWTPs) is widely discussed among policymakers and local authorities.

The project EmiPoll, which is carried out together with Luxembourg Institute of Science and Technology (LIST), will provide a database comprising operating parameters and activated sludge characteristics of selected WWTPs in Luxembourg linked to measured emission profiles of xenobiotics during the treatment process. Furthermore, it will offer a guideline for operational or structural improvement of those selected plants according to the performance in terms of xenobiotic removal.

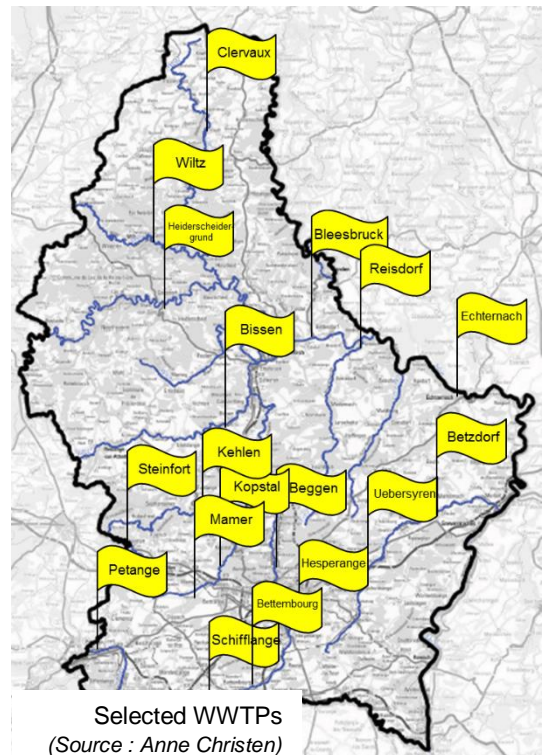
The Project following work packages are included within the project:

- *Perform full scale WWTP balances for xenobiotics with passive samplers*
- *Establish a database for typical PE-related xenobiotic emission profiles of WWTPs*
- *Evaluate relationship of activated sludge parameters with xenobiotic degradation*
- *Evaluate influence of WWTP design and operating parameters on xenobiotic degradation*
- *Identify approaches for optimisation concerning an improvement of the micropollutant removal*



Passive sampler

(Source : Presentation C. Köhler (LIST) at Micropol Conference 2017 in Vienna)



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