

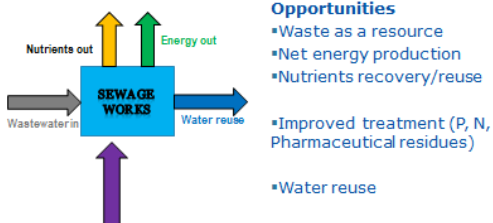
# THE SEWAGE WASTE WATER TREATMENT PLANT OF TOMORROW - REUSE OF WASTEWATER

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## Abstract

An increasing proportion of the world's population moves to the cities. The challenges are the ability to provide access to clean water, good living environment, food, energy and transport. Additionally, waste and waste water has to be treated in a sustainable way. Water availability is limited in many countries and this is exacerbated by the global rise in temperature in combination with a strong urbanization. Therefore an entirely new thematic approach is required where sewage and waste are seen as resources that turned into commodities in a production plant.

### What we want: A production facilit



During pilot project, we have therefore proven partial solutions that will lead to a production plant for water that, after removal of drug residues, metals and other priority substances, can be recycled for different purposes, bioenergy that can be produced from sewage and organic waste, phosphorus and other nutrients that can be returned in its pure form. Based on the

positive pilot results we are now establishing a full-scale demonstration for the use of a sieve filtration followed by an ozone step and a polishing treatment of effluent with activated carbon/sandfiltration. The quality will be carefully evaluated and, if possible, the water at the end of the trial period will be reversed into the circuit by artificial infiltration to the ground water. The process will be optimized from a resource point of view. Biogas will be produced from sludge and fish residues. The reject water will be treated with Anammox technology in pilot scale.

A success for this demonstration, will result in a Swedish innovative export product that will contribute to a strong increase in exports and a large number of new jobs