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Federal Ministry of Education and Research

Integrated

Wastewater Concept for Industrial Zones

AKIZ

The AKIZ Joint Research Project

In Vietnam an increasing number of more than 200 industrial zones (IZ) is without sustainable wastewater treatment. To cover the demand for an adopted wastewater solution for these IZ, a “Flagship Project” is exemplarily been implemented at Tra Noc IZ in Can Tho City.

Accomplishing planning and construction activities for the central sewage treatment plant of the IZ, the German Federal Ministry of Education and Research (BMBF) and the Ministry of Science and Technology of the Socialist Republic of Vietnam (MOST) support the development and verification of an integrated wastewater concept (AKIZ) to secure efficient and sustainable disposal of wastewater in industrial zones.

Development of an overall management concept

An overall management concept (AKIZ) is elaborated, combining centralised and near-to-source solutions for the treatment of industrial wastewater as well as integrating technological and economic/ financial aspects. Taking into consideration the specific local settings and institutional framework, the concept covers all relevant functions for the operation of the wastewater infrastructure within the IZ.

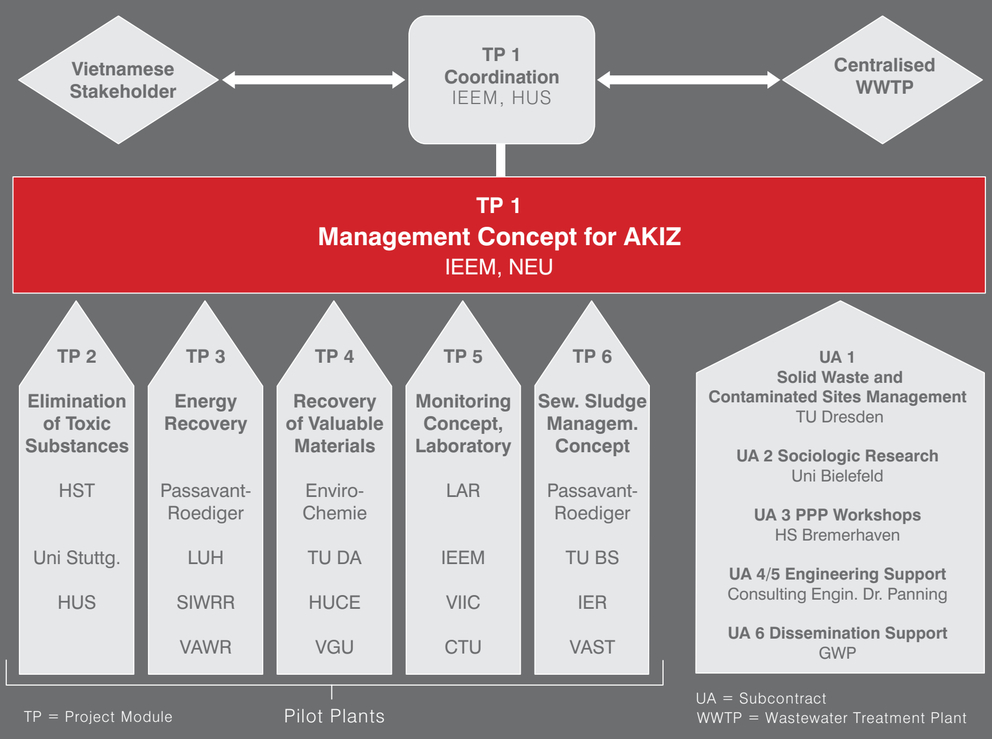
Furthermore, sociological and ecological aspects are researched. The sustainable implementation of AKIZ is supported by capacity building measures with stakeholders and local partners.

Applied science and close cooperation

Within the frame of 6 sub-projects, 8 German and 9 Vietnamese research institutions as well as 4 German industrial partners jointly perform the research work.

Pilot systems in different industries

Using containerised pilot plants in different branches of Tra Noc IZ, high-tech solutions for
a) pre-treatment of wastewaters,
b) generation of energy from wastewater,
c) recuperation of valuable substances
are adapted and verified by on-site pilot systems, taking into consideration the local conditions. Concepts for the sewage sludge management are investigated. Monitoring surveys create the database for control mechanisms especially in terms of toxic wastewaters.



The project is implemented with local industries and administrations in four phases between 2010 and 2015: basic and conceptual studies, adaption to local situation and set-up of pilot systems, optimisation and evaluation, and, finally, verification and transfer of results.

Tra Noc IZ Can Tho City

Project partners

IEEM - Institute of Environmental Engineering and Management at the University of Witten/Herdecke gGmbH

VNU - Hanoi University of Science (HUS)

HST Systemtechnik GmbH & Co. KG

University of Stuttgart

Passavant-Roediger GmbH

Leibniz University of Hannover

Southern Institute of Water Resources Research (SIWRR)

EnviroChemie GmbH

Technische Universität Darmstadt

Hanoi University of Civil Engineering (HUCE)

Vietnamese-German University (VGU)

LAR Process Analysers AG

Vietnam Institute of Industrial Chemistry (VIIC)

Can Tho University (CTU)

Braunschweig Institute of Technology

Institute for Environment and Resources (IER) at the Vietnam National University

Vietnamese Academy of Science and Technology (VAST)

Can Tho Export Processing and Industrial zones aunthority (CEPIZA)

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