



## Project coordination



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## Project partners

Institute of Environmental Engineering and Management at the University of Witten/Herdecke gGmbH (IEEM)  
Hanoi University of Science (HUS)  
National Economics University (NEU)  
HST Hydro-Systemtechnik GmbH  
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)  
Braunschweig Institute of Technology  
Institute for Environment and Resources (IER) at the Vietnam National University  
Vietnamese Academy of Science and Technology (VAST)

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[www.akiz.de](http://www.akiz.de)

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Federal Ministry of Education and Research



Integrated  
**Wastewater Concept  
for Industrial Zones**





## The AKIZ Project

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

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Accomplishing 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.

## Pilot systems for different industries

Using containerized pilot plants for different branches in Tra Noc IZ, high-tech solutions for pre-treatment of wastewaters, generation of energy from wastewater and 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 will create the database for control mechanisms especially in terms of toxic wastewaters.

## Development of an overall management concept

An overall management concept for industrial zones (AKIZ) will be elaborated, combining centralized 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 shall cover all relevant functions for operating wastewater infrastructure within the IZ.

Furthermore, sociological and ecological aspects will be researched. The sustainable implementation of AKIZ shall be supported through capacity building with stakeholders and local partners.



## Applied science and close cooperation

Within the frame of six sub-projects, eight German and nine Vietnamese research institution as well as four German industrial partners jointly perform the research work.

The project is implemented in four phases between 2010 and 2014: basic and conceptual studies, adaption to local situation and set-up of pilot systems, optimisation and evaluation, and, finally, verification and transfer of results.

