

Eawag Seminar Invitation

Enhancing sustainability of infrastructure development under changing conditions. The Example SEMIZENTRAL

Speaker **Dr. Susanne Bieker,**
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)

When **November 24, 11.00 – 12.00 a.m.**

Where **Forum Chriesbach, room C20, Eawag Dübendorf**

Abstract SEMIZENTRAL is an infrastructure approach for the cities of today and tomorrow. It is an alternative to large centralized systems with long planning phases, high investment costs and high path dependencies. The innovative approach of semicentralized supply and treatment systems was developed for new development areas in rapidly growing urban areas. In each district, the necessary, integrated infrastructure for water, wastewater, waste, and energy is created "on demand".

What is better compared to conventional systems?

SEMIZENTRAL is above average flexible. The infrastructure is planned and implemented along the specific local needs, technique-wise as well as spatially – on demand. The semicentralized Resource Recovery Center (RRC) is turning wastewater and waste into resources, and therefore enables recycling rates from 30 to 100%. The use of sewage sludge for biogas production enables energy generation, which makes the system's operation energy self-sufficient.

Research – or reality?

Both. The SEMIZENTRAL approach was first realized in the Northern Chinese coastal city of Qingdao and is now in real operation since 2014. Accompanying research from researchers of the German University TU Darmstadt enables "learning by example" and operational optimization for future implementations.