

Award for climate friendly Eawag project



The project is managed by Marc Böhler and Hansruedi Siegrist. Photo: Marc Böhler (ENG), Sandra Büttner (Diploma student), Christoph Liebi and Patrick Gisler in ARA Kloten/Opfikon.

Zurich Insurance Company has awarded a special prize to the Eawag project "Nitrogen recycling with air stripping at the sewage treatment plant Kloten/Opfikon". The project, realised by the ARA Kloten/Opfikon and the team around Marc Böhler, financed by the "Amt für Abfall, Wasser, Energie und Luft (AWEL)" of the canton Zurich), received a special prize within the scope of the Zurich Climate Award ceremony. Via the climate award, Zurich Insurance re-invests the refund from the CO₂ steering charge in regional projects committed to reducing CO₂ emissions. Precisely, they were looking for implementable projects that contribute to the reduction of the CO₂ concentration in the atmosphere or effect a change of conduct in this direction. In addition, sustainability and economic efficiency of the projects were also important.

Less energy consumption and fertilizer as a result

The project of the Process Engineering department staffed with Marc Böhler, Hansruedi Siegrist, Sandra Büttner and partners is trend-setting in many aspects. It deals with the application of the air stripping method in the treatment of supernatant liquor in sewage treatment plants. With this method, the nitrogen can be recycled as ammonium sulphate fertiliser, which just about completes the nitrogen cycle. Further pre-treatment of the supernatant liquor even reduces the energy consumption when applying the technology. The method was implemented for the first time on an industrial scale in Switzerland at the Ara Kloten/Opfikon (wastewater treatment Kloten Opfikon, AKO). Furthermore, the industrial co-treatment of urine separated in Eawag buildings shall be tested with the available facilities in order to show an economic and energy-efficient way of processing urine to a product.