SCHUBERG PHILIS DATACENTER:
> 90% REDUCTION OF DISCHARGE WATER

A large datacenter like Schuberg has, uses millions liters of cooling water every year and lots of chemical additives to prevent scale formation in the water cooling system. In search for a better solution, Schuberg Philis has been the first organization in the Netherlands to implement a new process, with the help of Frans Durieux from the Aqua Innovation Network and David Sherzer from UET. As a result, the discharge water has been reduced by more than 90% and the addition of external chemicals has completely stopped.

In the new situation, the scaling of the cooling system takes place in the electro-magnetically charged reactor, instead of through the entire installation. This scaling can be easily collected and removed four times a year. In addition, the reactor contains a positively charged anode, to convert the naturally occurring chlorides into a disinfectant. These chlorides disinfect the whole system, and make the use of extra chemicals unnecessary. Results after five months of operation show that the system is performing better than promised and even cleans the system from former scaling.

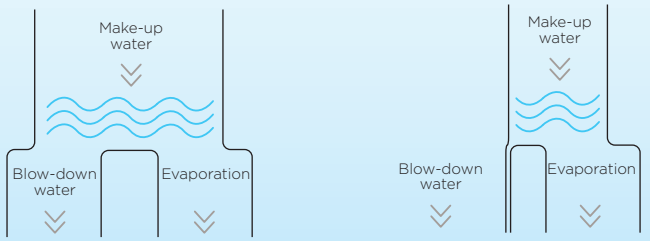
Make-up water *is the fresh supply water*
Blow-down water *is water to be drained in the sewer*

SCHUBERG PHILIS

THE RESULTS

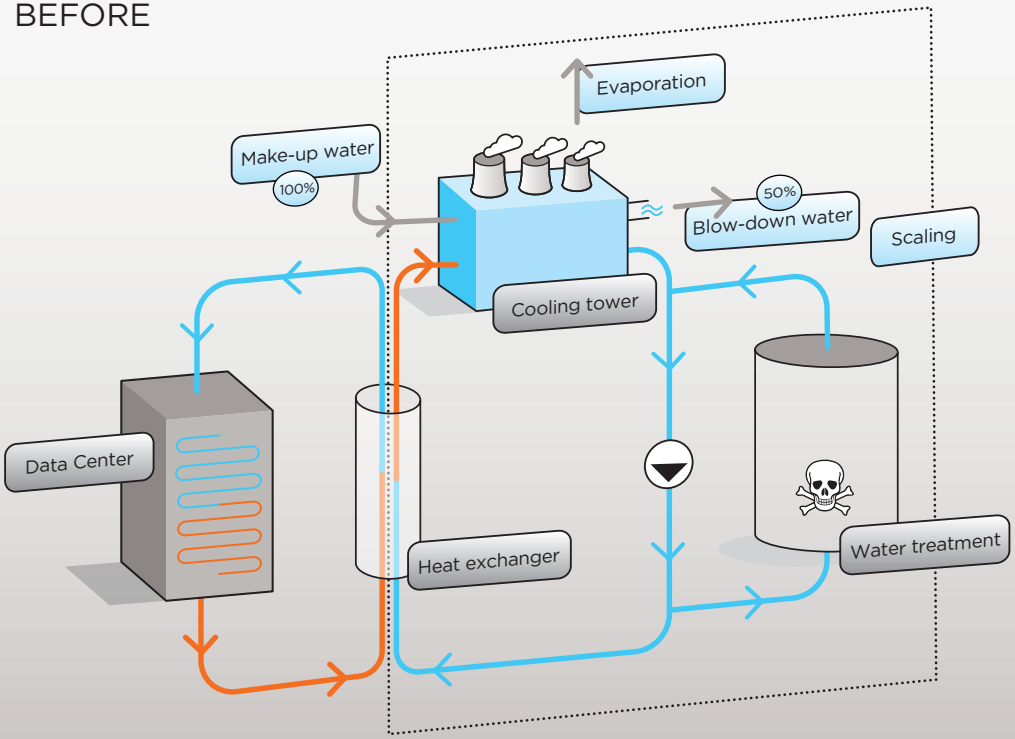
Reduction compared to the year before:

- Cooling tower make-up water.....more than 40%
- Cooling tower blow-down water.....more than 90%
- Total water cost.....more than 60%
- Return of investment.....1.5 years
- Concentration factor.....from 2 to 10
- Datacenter WUE.....from 2.84 to 1.04



Water discharge *based on 4 months of operational data*

BEFORE



AFTER