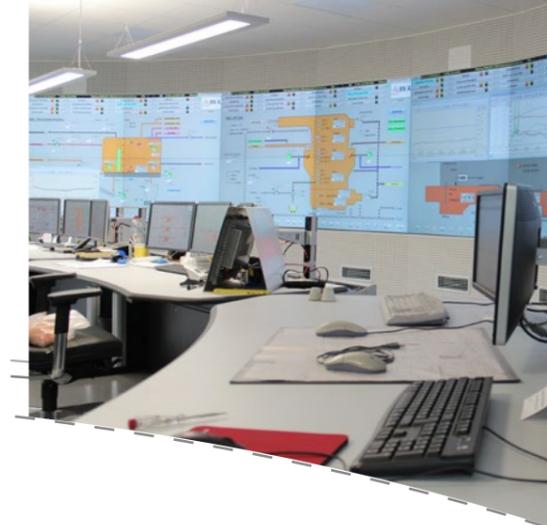
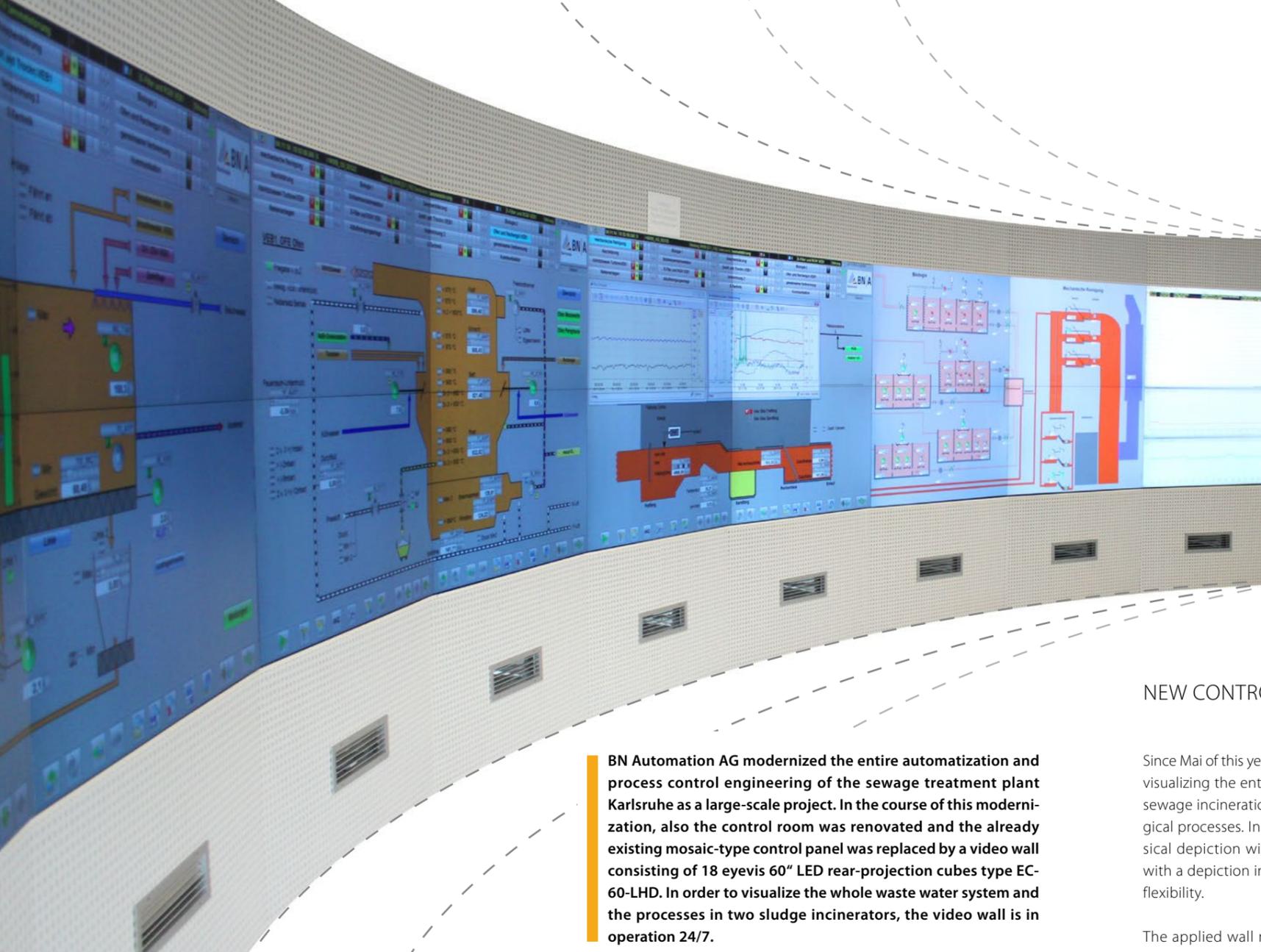


CLEAR VISUALIZATION – CLEAR WATER



BN Automation AG modernized the entire automatization and process control engineering of the sewage treatment plant Karlsruhe as a large-scale project. In the course of this modernization, also the control room was renovated and the already existing mosaic-type control panel was replaced by a video wall consisting of 18 eyevis 60" LED rear-projection cubes type EC-60-LHD. In order to visualize the whole waste water system and the processes in two sludge incinerators, the video wall is in operation 24/7.

At the sewage treatment plant Karlsruhe the entire sewage of the city area is defecated. To satisfy the requirements of clean rivers, the plant was constantly modernized. Since the 15 year old mosaic-type control panel ultimately was not capable to visualize all processes in the treatment plant any more and also the process control engineering was no longer state-of-the-art, they have since 2011 been replacing the entire automatization and process control technique of the sewage treatment plant and upgraded it to the Siemens product family PCS7.

In that process, also the control room was renovated. In order not to disrupt the defecation of the sewage in Karlsruhe, the room had to be modernized within a period of only two months and during operation. Thanks to the well planning of BN Automation this time limit could be kept. Thus a provisional control room was built and the actual control room was gutted completely. Only afterwards did they begin to install the new technology. It was also helpful that the video wall and with it the entire control technique could previously be tested signal for signal at eyevis. "This has also accelerated the installation enormously. BN Automation and all participating companies have done a superb job", underlines Nicole Brücher, project manager of the control stand modernization.

NEW CONTROL ROOM IMPROVES PROCESS CONTROL AT THE SEWAGE TREATMENT PLANT KARLSRUHE

Since Mai of this year, the over 12 metres wide eyevis video wall has been visualizing the entire sewage treatment plant with sewage treatment, sewage incineration as well as the video surveillance of the technological processes. In contrast to the tessellated circuit diagram the classical depiction with pictures and reading can be combined flexibly with a depiction in curve charts. Thus the room operators gain a high flexibility.

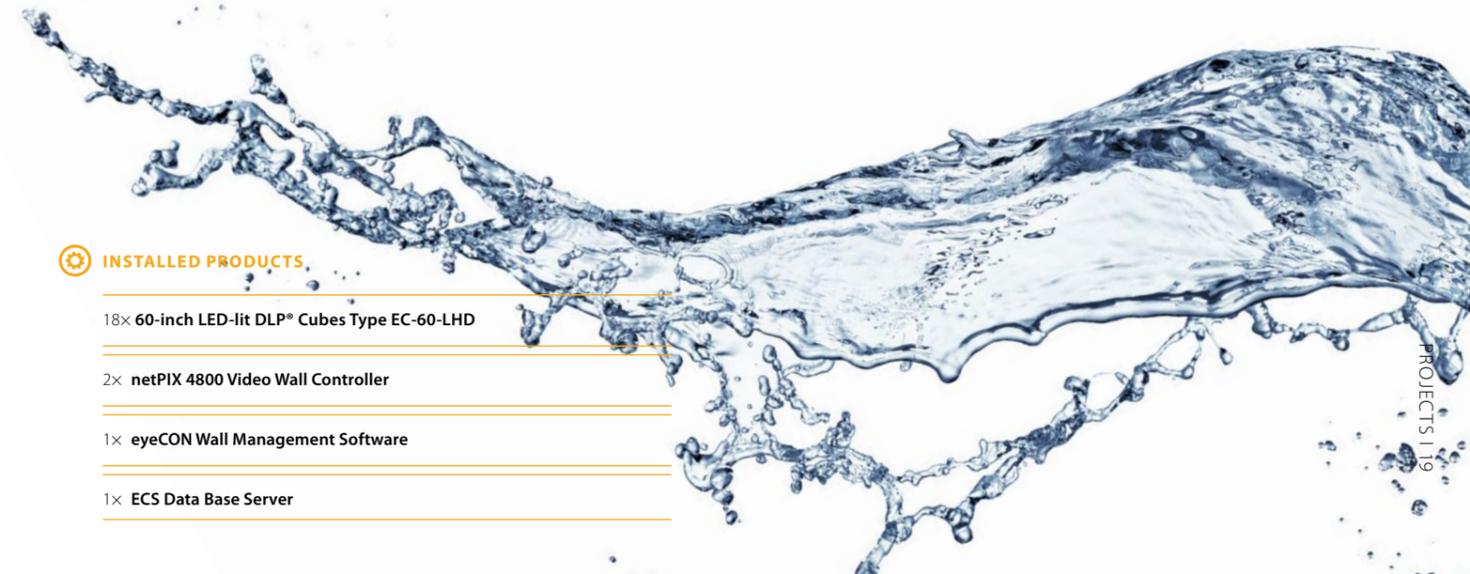
The applied wall management software eyeCON as well as the netPIX graphics controller by eyevis allow a flexible feed of the process data and the signals of the surveillance cameras. This data can thus be scaled and positioned freely on the video wall. So every operator can install his own presentation preset that is then saved in the eyeCON software. "This way, everyone can make his signals be presented however it suits him best. This fact has vastly accelerated the acceptance of the new technology, Nicole Brücher recollects.

Each of the 18 cubes offers a full HD resolution on a 60 inch screen. The technological features of the eyevis cubes enable an ergonomic operation. Thus the LED based rear-projection of the cubes does not only generate a high brightness with high contrast and brilliant colour display but the LEDs also provide a flicker-free image without rainbow effect. Also in the 24/7 operation this enables an ergonomic and a fatigue-free observation Thanks to the longevity of the LEDs with a durability of more than 60,000 hours the Cubes furthermore enable long maintenance intervals and thus low downtimes.

In order to minimize the noise generation in the control room the entire IT including the netPIX graphics controller and the workstations for the ten workplaces of the room have been installed behind the video wall in servers. Since the eyevis cubes have a very low noise generation due to their integrated heat pipe cooling without moving mechanical parts they herein also follow the ergonomic requirements.



The sewage treatment plant Karlsruhe



INSTALLED PRODUCTS

18x 60-inch LED-lit DLP® Cubes Type EC-60-LHD

2x netPIX 4800 Video Wall Controller

1x eyeCON Wall Management Software

1x ECS Data Base Server