

# Relying on modern training technologies at the world's largest chemical company

BASF SE, Ludwigshafen/Germany



Trainees and instructors develop lesson content together.

Photograph: BASF

BASF SE, founded in 1865, employs over 110,000 people worldwide who are developing innovative solutions and groundbreaking concepts. To do this, the company needs to ensure its teams are motivated and efficient. Thus, BASF places great importance on its investment to educate and train its more than 2,500 employees in Ludwigshafen, Germany. A portion of the training takes place at BASF's central training institution, which is equipped with state of the art SMART solutions.

## Changing training concepts

"Our training focuses on activity-oriented learning. That means that trainees are not only taught to, but actually help develop the training content and solutions with the trainer. With this in mind, we have been looking specifically for new training technology," says Dr. Jürgen Kipper, head of Training Manufacturing Engineering at BASF SE.

To help achieve that end, SMART Board® interactive whiteboards were installed in the professional school where trainees complete their theoretical training. "Very quickly we realized their versatility, not only in classrooms, but also in workshops," says Bernhard Schellenberger, media manager for the Training Facility Operation at BASF SE.

## Sustainable project work

Herbert Janson, an instructor of electrical engineering, works in the workshops with SMART solutions installed. "At the beginning of each lesson I distribute project tasks. So a team might have to wire a circuit consisting of lights, switches, sockets and junction boxes, correctly. To do it, they simply drag-and-drop ready-made symbols, already stored in the software gallery on the central network, into an empty digital page. Then they draw the connections with digital ink," says

## Challenge

Find a training tool that allows trainers to develop training content and solutions for specific problems and engages and motivates trainees.

## Solution

BASF SE increased the number of SMART solutions used in its training courses. Approximately 70 SMART solutions are installed, including SMART Board® 885i interactive whiteboards, SMART Podium™ interactive pen displays and SMART Board® 8055i interactive flat panel (LCD display with SMART's DVIT® (Digital Vision Touch) Technology).

## Result

SMART solutions ensure high motivation of instructors and trainees by enabling improved visualization and teamwork.

Janson. "According to our experience this interactive method of learning is more efficient than previous methods. We used to have to draw the circuit on paper for trainees, before presenting and explaining how it worked. Now we develop it together and research directly on the SMART Board using the Internet – this helps to ensure that trainees retain knowledge better."

Once the circuit is created on the SMART Board®, we can easily save it, print it or send it with one click to every participant. Afterward, the group can transfer that theory into practice and replicate the newly created circuit in small groups or individually on installation walls.

SMART solutions are also used to train chemical workers, who support process development for chemical products. During class, process flow diagrams – the most important planning document regarding system operation – are created directly on the SMART Board.

"The quality of the work and the greater motivation and engagement of the trainees is clearly visible," says Andreas Peters, a manufacturing engineering instructor at BASF SE.

### Adoption by trainers

"We didn't want to force the trainers to work with a tool they didn't want and wouldn't use, so initially we installed only a few systems. But the demand started to increase on its own – not only from instructors, but from students," says Dr. Kipper. "They wanted to work with contemporary technology because they grew up with computers and will work with them all their lives. Trainees are enthusiastic about this kind of learning and they will take this experience into their jobs."

"Some trainees already know the system from school and help the others. Often they "learn-by-doing" and that's easy to do because the software is so intuitive," adds Peters.

### BASF's future with SMART

The installation of more SMART solutions by BASF is already planned. "Last week we ordered another five SMART solutions. Our certified SMART reseller helps us find the right solution for every room," says Schellenberger.

"For me what counts is the overall package that SMART provides," says Peters. "The intuitive software, innovative hardware and service of our SMART certified reseller all results in more motivated trainers and trainees. Once you've worked with this system you don't want to work without it anymore."



1. In major training spaces the SMART Podium™ is used to boost interactivity.
2. The instructor shows a changeover switch on the SMART Board® 885i5.

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**Andreas Peters**, Instructor,  
Manufacturing Engineering, BASF SE

#### About SMART

SMART Technologies Inc. is a leading provider of technology solutions that enable inspired collaboration in schools and workplaces around the world by turning group work into a highly interactive, engaging and productive experience. SMART delivers an integrated solution of hardware, software and services designed for superior performance and ease of use, and remains a world leader in interactive displays.

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