When the Automotive Aftermarket division of Schaeffler refurbished its headquarters it pushed cultural and technical boundaries. Anna Mitchell takes a look inside.

# Culture shift

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Three years ago, Schaeffler Automotive Aftermarket, a division of German manufacturing giant Schaeffler, started to upgrade a facility at its Langen headquarters. The physical change in the facility's layout - that included open offices and heavy use of glass - echoes a cultural change of openness and transparency that Michael Söding, head of Automotive Aftermarket and an incoming member of the Schaeffler Executive Board, wanted to encourage.

"[The office] is part of our cultural change to a more network-based organisation and a move away from being seated and located in enclosed environments," says Söding.

But it wasn't just cultural boundaries being tested at the site.

As the refurbishment continued, this year, AV consultant Bernd Schindler, who has a long working history with Schaeffler, saw the opportunity to completely transform how AV signals were distributed in the Langen site's boardroom, implementing the first ever deployment of Biamp's TesiraLux.

While Schindler has advised Schaeffler for many

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years, designing and overseeing installations at its Herzogenaurach headquarters as well as other sites in Germany, installation is usually carried out by an integration partner.

But the boardroom was a little different with Schindler noting: ""When stepping into new technology I prefer to do it myself."

While the hardware delivery and smaller parts of the installation were provided by Franken Lehrmittel Medientechnik, Schindler did most of the installation and all of the programming.

Söding describes the boardroom as "the heart of our global extended management board." You might expect an organisation to be wary of deploying untested technologies in such an important space, but Schindler had the support of Söding and Matthias Huber, senior manager of Administration at Automotive Aftermarket.

Matthias says: "There are some overarching technologies and specifications that, as a division of Schaeffler, the Automotive Aftermarket company has to follow. However, the company's remit is very different in that they are far more customer focused and we have a little more freedom."

The 18-seat boardroom was designed to be flexible and has three main uses: presentation, videoconferencing and broadcast.

Staff and visitors can use a 98-in touch enabled eyevis wall-mounted screen to support presentations to the room when it is set up in a traditional boardroom arrangement.

Presenters can connect laptops and devices via Microsoft Surface Dock, USB and HDMI connections housed in connection boxes (that also offer power) in the custom-built Brunner >

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> boardroom table.

All touch signals are routed via USB in a system that feeds into Crestron switchable USB-over-IP extenders, with two receivers integrated in the table and two in a rack room in the basement, connected to a Wolf Vision Cynap. Three Extron USB switchers were deployed and approximately 50m of USB cable is routed under the table.

TesiraLux, coupled with an Extreme Networks X450-G2-24p-10GE4 AVB-enabled switch, manages video distribution over the Schaeffler network with Schindler deploying four encoders and four decoders under the boardroom table and in the rack room.

"Getting USB connectivity right when designing this was hard and the USB routing was the most complex part of the installation," remarks Schindler. "While TesiraLux only took two hours to configure and it was up and running.

"The main benefit of AVB networking isn't anything to do with a matter of removing milliseconds of delay, it's more to do with getting rid of the need for interconnections, especially analogue ones, between separated audio and video systems," adds Schindler.

In-room control of sources, displays, lighting and HVAC is accessed by a Crestron control panel. Schindler also deployed a Crestron 3-Series Control processor.

To transform the space for videoconferencing, the tables are rearranged to form a 'U'-shape, facing a second wall-mounted eyevis display, slightly smaller at 85-in. A Vaddio RoboShot 12 USB camera is mounted above the display, while a Vaddio AV Bridge is located below the table, to support videoconferencing over Skype for Business and to capture and stream meetings for broadcast purposes.

DSP and audio networking are handled by Biamp Tesira and Tesira amplifiers are placed under each screen.

Each pair of seats has a Clockaudio microphone, integrated into the table, with a flush mount capacitive touch switch and an integrated LED light to indicate if the microphone is on or off. Presenters can also use Revolabs clip-on microphones that use AVB to uplink to the Tesira DSP.

"[The Clockaudio microphones] are a game changer," says Söding. "We still have other meeting rooms where all the microphones are open so if people have a cup of coffee by them you can hear them stirring with their spoon, or pouring water. You can control and easily see which microphones are open in this space."

There are no loudspeakers visible in the room but ML Audio loudspeakers and subs are integrated in the ceiling and walls. Two ML Audio Novasonar Dynamic 60 and one Novasonar Boxer 100-2

subwoofer are installed around each display, while four Novasonar GL 60-PNs are installed in the ceiling.

A satellite tuner and Wolfvision Cynap collaboration and wireless presentation system are also provided. The Cynap system supports wireless screen sharing, recording and streaming, as well as direct collaboration without the need to bring in a laptop.

The boardroom installation pushed the limits of standards set centrally by Schaeffler, used a technology that had never been installed in a commercial environment before and, using Tesira, distributed AV signals over the network.

Although Schindler was confident in his system design; does acting as a pioneer with the use of new technologies necessarily offer a good experience for the users of the room?

"Absolutely," answers Söding. "Standardisation is the enemy of innovation. We've never invested in a technology that didn't work. Maybe some problems at the start, but we always solve them."

The boardroom refurbishment also gave a new lease of life to a converted garage a short walk from the office building. This garage has now been repurposed as a conference centre using equipment that was made obsolete from the refurbishment. Projection systems, conferencing equipment and even lighting has been recycled to make another functional space. ∿

## Tech-Spec

**Audio**

Biamp Tesira Forté AVB VI, Tesira AMP-8150, Tesira AMP-4150, Tesira EX-IN and Tesira EX-Logic

Clockaudio C 012 boundary microphones and TS 001 touch switches

ML Audio Novasonar Dynamic 60, Novasonar Boxer 100-2 and Novasonar GL 60-PN

Revolabs Executive Elite 4 with Executive Elite wearable microphones

**Video**

Biamp TesiraLux IDH-1 and TesiraLux OH-1

Eyevis 98-in and 85-in touch enabled UHD

Icron USB Ranger 2304

Vaddio RoboShot 12 and AV Bridge

WolfVision Cynap

**Control**

Crestron CP3 controller and TS-1542 touchpanel, USB-EXT-DM-REMOTE and USB-EXT-DM-LOCAL

Extron SW4 USB-switchers