



World Conference Center Bonn WorldCCBonn Plenary Saal

Case Study

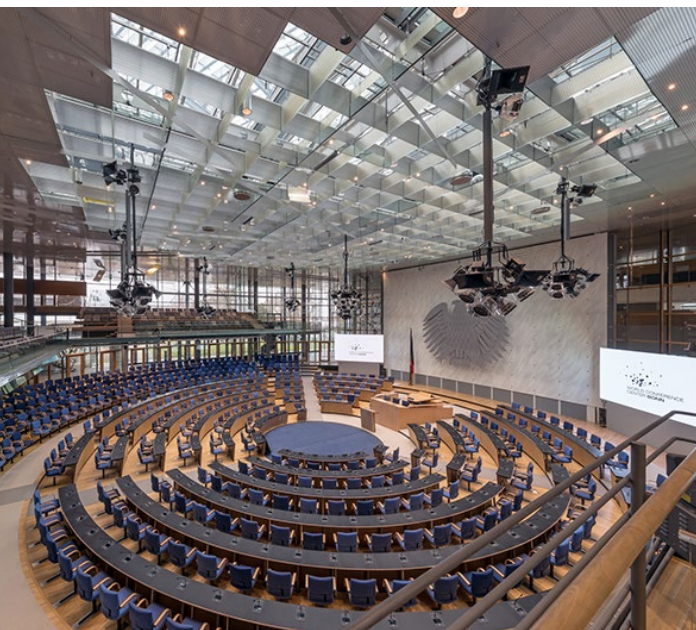
Lightware Visual Engineering



World Conference Center Bonn

Market	Country
Conferencing/Rental&Staging	Germany
Lightware Equipment Used in Project	
25G-FR144x144 Hybrid Matrix Router	

(This below is an approximate summary of the original article, please read the original under the link above for more details. However, the original document seems to be a machine translation and not fully intelligible.)

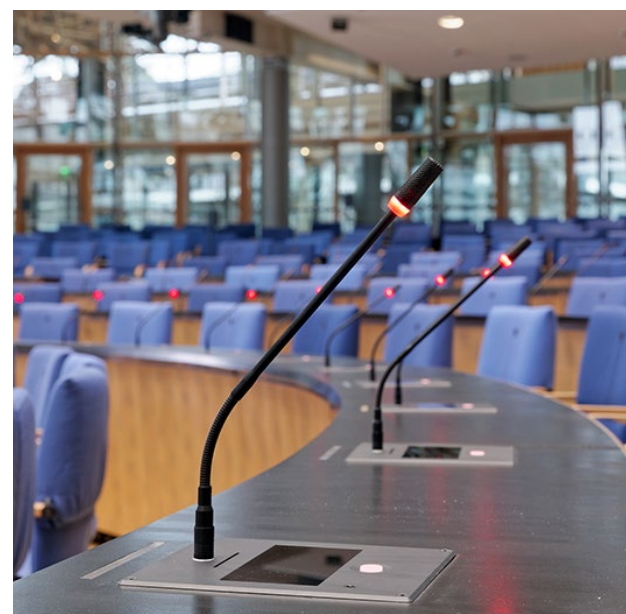


The 'Plenary Saal', designed by architects Behnisch & Partner, was the former parliamentary seat of the German Bundestag from 1992 to 1999. The building then became a conference center and is part of the WorldCCBonn now. The hall is dominated by glass and steel without a continuous outer wall, with isolated, concrete support walls. The lack of speech intelligibility was already strongly criticized from the first parliamentary session. For the sake of improvement, the outdated media technology of the 90s had to be adapted to current state-of-the-art technology. The preservation of historical monuments demanded that the new installation technology has to fit in as 'invisibly' as possible into the existing ambience. The history and significance of the building are unique in world history. The fact that the former West German parliament building has been turned into a conference center with multifunctional and modern use is also evident. In addition to lectures, conferences and political events, the center is also open to musical events such as classical concerts, jazz, rock and pop, provided that they are consistent with the location's

dignity. The newly installed media technology now also covers this event portfolio. Due to the complexity of the contract, punctual execution and exact adherence to the budget are of particular importance. Although the work took place between operations and the time window was very tight, the deadline was met without delay.

Therefore the renewal of this conference venue was mainly a technical project, but considerations were also included for historical preservation. The project started in 2018. The color-matching painted enclosures to the left and right of the 'German Eagle Wall' have a room-acoustic effect with a perforation. Thanks to the electronically controllable direction of the loudspeakers, it was possible to counteract the disturbing acoustic effects and achieve a high level of feedback resistance. While on of the primary event types is dominated by spoken words, there are also music events with classical music, jazz, rock/pop, which is why the sound system is also 'dimensioned' for these scenarios with additional subwoofers.

Since the conference center also serves as event location, Leyard LED walls were installed on the sides, suitable for daylight operation. The entire video infrastructure was also completely renewed for this purpose. In the engineering room there is a Lightware 25G-FR144x144 Hybrid Matrix



Router, which is one of the largest systems installed in Germany. It routes broadcast signals and mainly presentations from consumer laptops. Numerous HDMI interfaces of the matrix are connected to six specially configured PCs from Digital AudionetworX (each with several video outputs).

Remote devices are safely connected by fiber optic cable to prevent interference. The video infrastructure in the hall now transfers 4K resolution from source to sink. The final image mixing for video walls and preview displays is performed by an Analogway Ascender 48 Video-DSP, controlled with a touch panel.



Six new, remote controllable Sony BRC-X100B 4K PTZ cameras deliver video in broadcast quality. They are connected to a Ross video mixer via optical fiber. The cameras are controlled either by the Sony RM-IP500 control panel in the control room, or an automatic tracking system.

The existing media technology components such as the prominent loudspeaker ceiling artefacts with their transparent Plexiglas housings and the permanently installed large cameras were not to be removed. For this reason, the decision was made to use the slim, powerful Fohhn sound lines delivering maximum performance.



The conference hall now has a highly flexible and powerful infrastructure based on a redundant 10 Gbit fiber optic network, a huge 25G-FR144x144 Hybrid Matrix Router, and a conferencing system with 260 state-of-the-art microphone units - all individually manufactured retrofits from the Brähler DIGIMIC product family - which are elegantly and completely integrated into the tables.

The sophisticated control room is located in a very small room containing work desks, user interfaces and screens, all ergonomically adapted to the individual workflow of the technical engineers. The media technology is connected to safe and secure UPS (Uninterruptible Power Supply) system.

Despite the high complexity of the system, the state-of-the-art technology consisting of audio, microphones, mixing console, intercom and communication technology, video technology and control technology, is easy to operate. While it is fully compliant with current regulations, the system is also perfectly integrated. Event participants will only notice the outstanding audio and video quality and the smooth running of the event when it's showtime.

Source: <https://mondodrawards.com/emea-apac/portfolio/world-conference-center-bonn-worldccbonn-plenary-saal/>

