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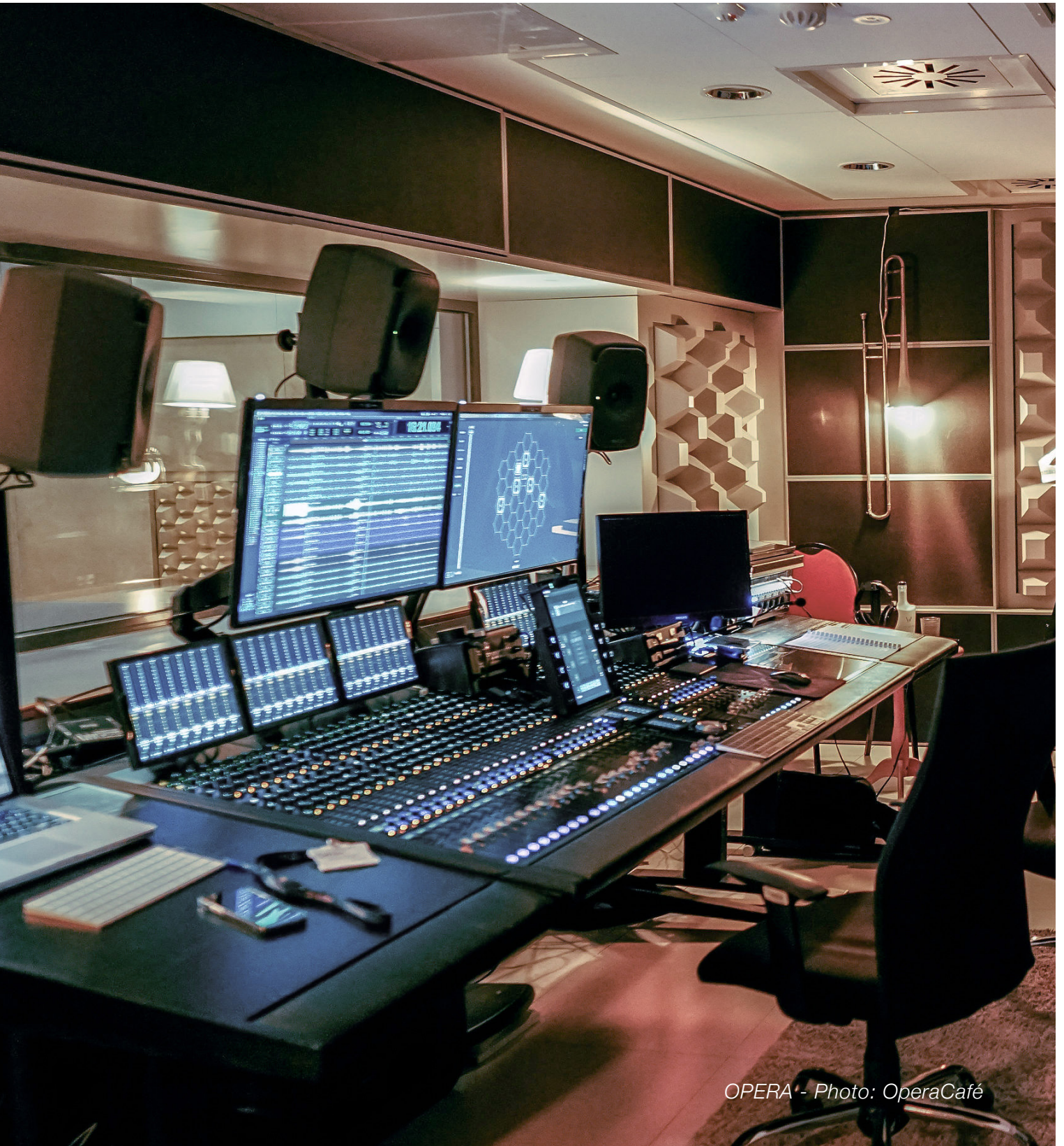
CASE STUDY

**Enhancing
artistic freedom**

HUNGARIAN STATE OPERA
SELECTS GENELEC MONITORS
FOR NEW LOGISTICS AND ART
CENTRE



OPERA - Photo: OperaCafé



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GLM CALIBRATION ASSISTS WITH RECORDINGS AND LIVE STREAMS IN NEW STUDIO SPACE, DESIGNED FOR TOTAL ACCESSIBILITY



Menyhárt Zsuzsánna (L) and Kondás Ferenc (R) | OPERA - Photo: OperaCafé

Hungary's largest cultural development project of the decade has seen the transformation of what was once the country's largest indoor railway complex into the Eiffel Art Studios, the [Hungarian State Opera](#)'s new logistics and art centre. At the heart of the transformation is Eiffel Hall, a space for workshops, rehearsals and a recording studio for the [State Opera](#). And while the space pays tribute to both the 200-year history of Hungarian opera culture and the venue's industrial past, it also highlights

the best in modern sound technology, thanks to [Genelec](#) monitors.

The hall, which takes its name from Gustave Eiffel and was designed by János Feketeházy, leader of the Eiffel office, was originally large enough to repair up to 96 huge steam locomotives. While there is still a nod to its historic past with a restaurant in a vintage carriage and trains on display inside and out, the 22,000m² space is now all about music. Inside, all sections have been named after the

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Budapest opera house's legendary figures; the recording studio became The Ferenc Fricssay Studio, the theatre hall was named The Bánffy Stage, and the smaller hall is now The Sándor Hevesi Rehearsal Stage.

The decision to build a recording studio was an unusual one for a venue like this, but the reasoning came from the devastating effects of Covid-19 on Budapest's recording studios. It also gave the State Opera the opportunity to create exactly the space it needed, resulting in a colossal recording complex where changes could be made from any space.

“That's why it was a great idea to make a studio of this unprecedented size in Hungary,” explains Kondás Ferenc from the Hungarian State Opera.

“We're now able to record from each room in the studio. The studio has been designed so that you don't have to go down to the big room for minor sound corrections. So, if a correction to a vocal or instrumental performance is needed, it's happening right there. Or if an advertising voiceover or narration needs to be recorded, it's also happening there – we wanted everything to be easily accessible.”

Having worked with Genelec monitors at various facilities since 1989, Ferenc knew that they were the only option for this project. “I remember creating a musical show around the time that the Genelec Smart Active Monitoring series with GLM software was released,” recalls Ferenc. “This was such a huge milestone, so I made sure we got some for the show and once



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everything was set up and calibrated, the effect was unbelievable – we were inviting everyone in the building to come and have a listen! Since that experience, it was clear that we were going to use Genelec for the Hungarian State Opera project.”

The result has seen the 5.1 recording space equipped with five [8341](#) three-way coaxial monitors and one [7370](#) subwoofer in the control room. In addition to this, four [8040](#) two-way monitors (two in the control room as a stereo pair and two in the live area) and a [9301](#) multichannel interface complete the setup.

[GLM calibration software](#) was employed to individually optimise the monitoring system in the Friscay Studio for different listening positions.

“We measured using GLM in three different places; in the sound engineer’s position, in the musical director’s position, and in the place where the composer or conductor would be listening,” Ferenc adds. “The conductor or composer can’t fit with the score beside the sound engineer, so they sit behind them, and that’s why this third set-up was created. In the studio we’ve created 2.0 and 5.1 settings in GLM, but for recordings and live streams we normally use the 2.0 setting.”

Building a studio of this stature in a busy city will always have its challenges, particularly when there’s a two-way tram track that runs regularly throughout the day directly outside the building. “The hardest part was finding a solution for the low frequencies, and having



OPERA - Photo: OperaCafé

trams run outside puts us at a disadvantage,” explains Ferenc. “Luckily, the team at our acoustic consultants [Arató Akusztikai Kft](#) solved this problem by building a “box-within-a-box” system. Under the inner floating floor is a rubber layer, and the inner light structure wall is fixed to the main wall with vibration isolation elements. As a result, this building system excludes the noise of the road and trams. Additionally, the climate control system’s piping is silent – the incoming air is not audible, but the musicians or larger choirs still have fresh air, without any noise.”

The end result has certainly created a breathtaking set up for both the install team and musicians: “Even the conductors were surprised to feel the effect of what they were doing on the podium, and they could genuinely

hear the result of their baton!” says Ferenc. “The composers also heard more of their pieces than when they played the score in their mind and imagined how it was going to sound. But everybody was satisfied – one of the lead singers said that when he listened to his microphone played back, he could not only hear it perfectly, but he could also feel every vibration.”

Reflecting on the new facility, Ferenc is delighted with what can now be achieved. “The Hungarian State Opera never had a studio like this before. The musicians and the sound engineers are satisfied, with lots of recordings and streams happening since the studio was completed. The act of creating a record isn’t about compromise. It’s about artistic freedom, which represents added value in the final product.”



OPÉRA - Photo: Berecz Valter

THE KIT

- 5 x 8341A
- 4 x 8040B
- 1 x 7370A
- 1 x 9301A
- 1 x GLM Software

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