

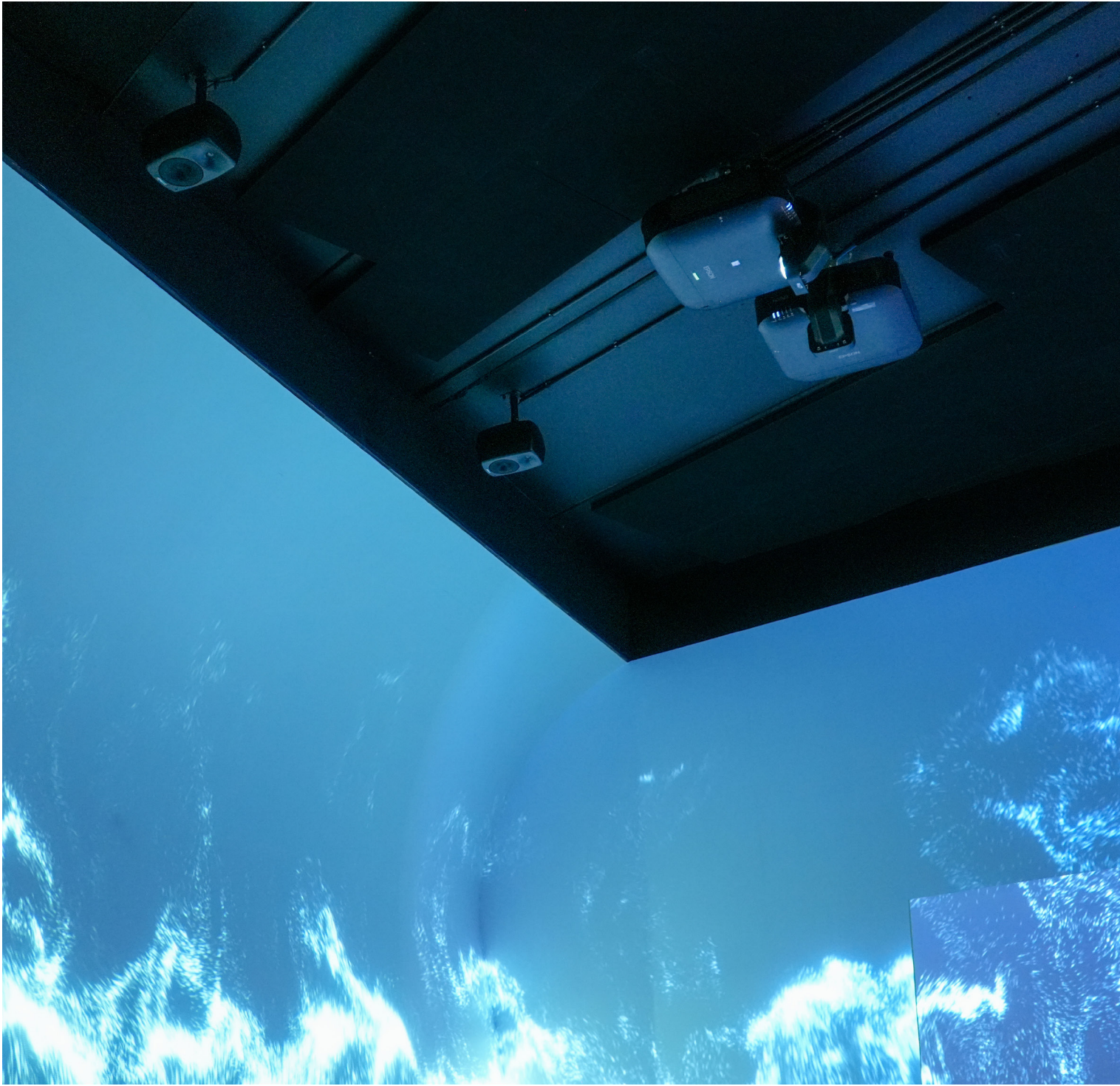
GENELEC®

CASE STUDY

**Genelec powers
musical magic
at Hunderfossen
Fairytale Park**

SMART IP LOUDSPEAKERS
TRANSFORM MUSIKKFABRIKKEN
INTO A REVOLUTIONARY
CLASSICAL MUSIC EXPERIENCE





**HUNDERFOSSEN'S INVESTMENT IN PREMIUM
AUDIO ELEVATES** AN OUTSTANDING NEW
IMMERSIVE ATTRACTION



Photo Credit: Hunderfossen

Known as Norway's Fairytale Park, [Hunderfossen](#) is one of the country's most popular tourist destinations, welcoming more than 250,000 visitors each summer with over 60 family attractions. The park's success was recently recognised with a Scandinavian Travel Award for Best Innovation, thanks to the enchanting Winter Park. On the back of this achievement,

its newest adventure was unveiled — a thrilling, interactive exploration of classical music that blends visual art, animated characters, and a cutting-edge sound system powered by [Genelec Smart IP](#) loudspeakers.

The compelling new family attraction was developed by Sigurd Slåttebrekk, a Norwegian classical pianist and professor of piano, with the goal of making classical

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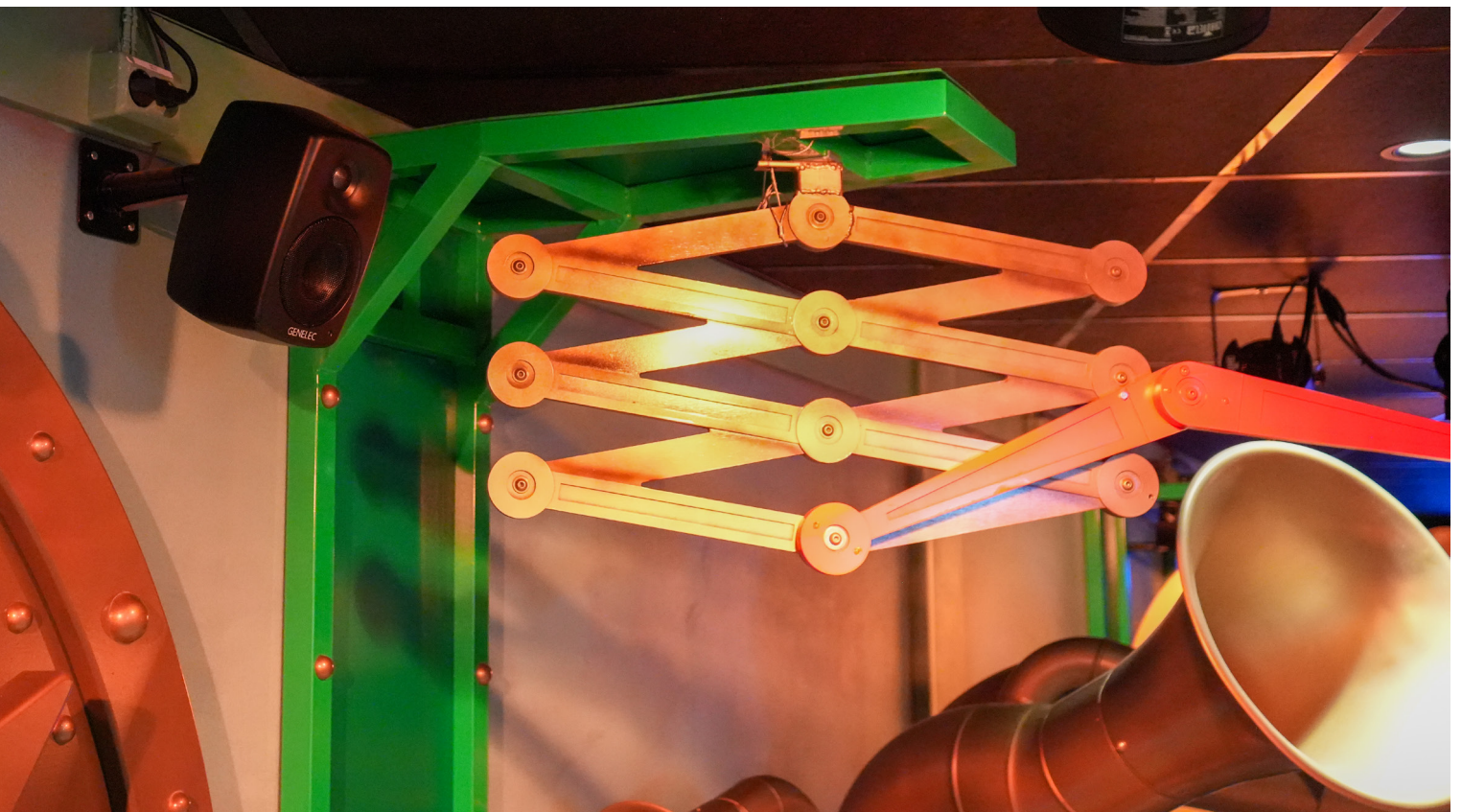
music more accessible and exciting for adults and children alike. He worked in collaboration with Hunderfossen and the [Oslo Philharmonic Orchestra](#) to bring [Musikkfabrikken \(The Music Factory\)](#) to life — a musical experience for all ages featuring interactive projections, animated characters, and classical music.

An unused 4D cinema at Hunderfossen was chosen as the setting for this immersive adventure, but it was in desperate need of an audio upgrade. Norwegian integrator, [Bravo](#), was tasked with finding a solution that would meet the brief: a sound system capable of delivering an exciting yet comfortable listening experience for visitors of all ages.

While searching for a solution, Bravo's project manager, Lars Thomas (now with [Assist](#)), reached out to Norwegian audio-visual consultants, [Benum](#), who played a pivotal

role in the attraction's success. “We began by demoing three or four different loudspeakers,” explains Benum's product manager Bjørn Erik Hexeberg, who led the sound design and testing for Musikkfabrikken. “But for this project, the ideal solution was Genelec's Smart IP series. The clarity and control offered by Smart IP loudspeaker models is unmatched. We knew this was exactly what Musikkfabrikken needed — we just weren't sure if it would fit the budget.”

Sigurd Slåttebrekk's classical expertise meant he knew exactly what he was looking for when it came to sound quality and impact. “Sigurd was heavily involved in the selection process,” continues Hexeberg. “We ran about five or six demos, each time testing new elements — volume, control, and so on.” After listening to the music and sound effects that had been mixed for the attraction through each loudspeaker, it became clear



” SMART IP GAVE US PRECISE CONTROL AND REAL-TIME STATUS MONITORING OF EACH LOUDSPEAKER.

that Slåttebrekk and the Bravo team were leaning towards Genelec. “Not only did it sound incredible, but the control and easy integration with [Q-SYS](#) was essential for the smooth operation of the interactive attraction.

“During the demos, we spent a lot of time discussing PoE loudspeakers and using Q-SYS to manage different zones,” Hexeberg explains. “Q-SYS formed the backbone of the whole project, and this meant that integrating Smart IP loudspeakers was straightforward. It gave us precise control and real-time status monitoring of each loudspeaker.” Another integral tool was Genelec’s [Smart IP Manager](#) software, used to configure the Smart IP models before integrating them with Q-SYS.

When it came to the installation, loudspeaker placement was crucial. In the waiting room, colourful animated characters appear on screen to perform for the visitors waiting to

enter the main cinema show. “My original plan was to position loudspeakers in a straight line from the front to the back of the room,” Hexeberg explains. “We set everything up in the Benum office first — replicating the size, layout, and ceiling height of each zone.” The waiting area featured sloped zig-zag ramps, giving visitors clear sightlines to the front screen. “After testing in the office, I found that placing loudspeakers along the sides of the room, in line with the viewing ramps, offered a far more immersive listening experience.”

As a result, four [4420](#) and two [4430](#) Smart IP loudspeakers were configured to envelop the guests. “When you walk in, the sound feels like it’s coming right out of the screen,” comments Hexeberg. A self-playing Yamaha piano adds to the excitement. “One of the characters in the video looks as though it’s playing the piano for the guests,” he adds. “The piano is mic’d, so the live sound plays



Photo Credit: Hunderfossen

through the Genelec loudspeaker mounted above it, perfectly localising the audio to the on-screen performance.”

After the cinema show, guests enter an interactive room, featuring touch walls and projected displays. “A major part of Musikkfabrikken is the interactive displays,” says Hexeberg. Due to its interactive design, this room posed a much greater challenge. “It was important that the sound system didn’t interfere with the interactive elements, while still ensuring that the audio and visuals stayed perfectly in sync.

“Initially I wanted to place loudspeakers under the screens, but the sound was not direct enough,” continues Hexeberg. “Instead, we decided to install eight 4420s in the floor and eight 4430s in the ceiling, complemented by four [7360](#) subwoofers to enhance audio definition. The result is incredible — the ceiling speakers provided the power and clarity directly to visitors, while you could feel the under-floor speakers adding depth to the immersive experience.”

Since Genelec Smart IP loudspeakers feature built-in [Dante](#) and [AES67](#) networking, this meant that the entire system could handle audio, power and control over a single CAT cable. “The single-cable setup made the installation so simple. It simplified routing and minimised the need for additional power outlets, which was essential for placing loudspeakers in the floor and ceiling. The integrators were able to hide the loudspeakers discreetly without interfering with the interactive displays, while maintaining powerful and direct surround sound,” adds Hexeberg.

The result was nothing short of spectacular, with Musikkfabrikken going on to win the prestigious THEA Award for Outstanding Attraction in the Limited Budget category. “Musikkfabrikken is absolutely incredible,” says Hogne Høstmælingen, Hunderfossen’s CEO. “The guest feedback has been outstanding, and the sound experience is essential to the success of such an attraction. We invested significantly more in the audio than we typically do for the park’s other attractions — and it has truly paid off.”



THE KIT

- 12 x 4420A
- 10 x 4430A
- 4 x 7360A
- 1 x Smart IP Manager Software

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