

# Abbaworld

Is that really ABBA up there on stage?



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Ian O’Connell, Director of Musion Systems

Ever dreamt of singing ‘Mamma Mia’ or ‘Dancing Queen’ and dancing live on stage next to Agnetha, Benny, Björn and Anni-Frid (Frieda)? Well, now’s your chance! Touring Exhibitions has developed a revolutionary new exhibition format around the world’s second-best-selling band in history (375 million albums).

One of the most exciting and spectacular features of ABBAWORLD is a truly immersive ABBA concert. “ABBAWORLD is taking a bold step in showing the world’s first live motion capture interactive hologram in the form of a live karaoke concert,” said Ian O’Connell. His company, Musion Systems, was the brain behind the cutting-edge holographic presentation of ABBA. Barco supplied the projector to make the innovative design come true.

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“It started with, ‘How do we give the visitor a big hug in each room’,” said Magnus Danielsson, president of Touring Exhibitions. Committed to setting up an original, interactive exhibition, his company developed ABBAWORLD. More than admiring exclusive ABBA footage, stage costumes, images and memorabilia in 25 rooms, ABBAWORLD-visitors can perform live with ABBA via ‘holographic video technology’. “We were encouraged to get up on stage beside them and sing. This proved both breathtaking and deeply weird,” commented the Guardian.

Touring Exhibitions was established quite recently to develop the global exhibition market. It is backed by big-name companies: Polar Music (part of the Universal Music Group); Eventum Exhibitions (with roots from Live Nation); Parks & Resorts Scandinavia; Synergera Rättighetsförvaltning; and an investment group led by Investering I Kunskap. As soon as its ideas for ABBAWORLD had taken shape, Touring Exhibitions approached Musion Systems, a world leader in high-definition projection, to elaborate the ‘live performance gig’.

### Off-the-radar approach

“They asked for holograms of the ABBA group members,” Ian O’Connell, Director of Musion, recalled. “But there was no high-quality visual material to create an appealing, realistic hologram. Holograms work by building an image composed of two superimposed 2-dimensional pictures and we were not satisfied with the ABBA pictures available. So we took a totally different, off-the-radar approach: combine live motion capture with filming.”

### Inspired by Gorillaz

Musion’s approach was inspired by Gorillaz, the world’s most successful ‘virtual band’. At the MTV Awards 2005, Musion Systems (and Barco!) had staged the ‘world’s first 3D hologram performance: while, traditionally, the human artists behind Gorillaz appeared as silhouettes on a giant screen combined with images of their cartoon alter egos, Musion beamed 3D holographic style performing cartoon characters on stage, using its patented Eyeliner technology. O’Connell: “Eyeliner uses a specially developed foil that reflects images from HD video projectors, thus making it possible to produce virtual holographic images of variable sizes. For Gorillaz in 2005, the animation was pretty straightforward. As technology has advanced a lot since then we chose a more groundbreaking approach for ABBAWORLD.”

### A real first!

Musion Systems created 3D caricatures of Anni-Frid, Benny, Bjorn and Agnetha, which the band members approved. By filming an Abba tribute band, they could then copy the typical moves onto the caricatures. “We created 3D polygon models, which we successfully combined with live motion capture suits,” O’Connell explained. “This approach is truly unique.” To make sure the cutting-edge holographic presentation wouldn’t lose any of its value, a high-end Barco projector was used. O’Connell: “The eight Barco ELM R18s we had been using for Gorillaz performed greatly. For ABBAWORLD, the new Galaxy NW-12 was the best choice.”

### True-to-life colors

With its impressive 12,000 lumens light output, the Galaxy NW-12 was designed to operate in bright environments. Its stereoscopic capabilities ensure stereoscopic images of the highest detail. O’Connell: “The vibrancy of the color in the animation was crucial for us, but not evident as we would project on a stage full of light. In addition, we needed a compact and quiet projector. After all, we had to install the projector very close to the stage and didn’t want the people singing along with ABBA to notice it.” To maximize image quality, Musion installed HD-SDI outputs instead of the standard DVIs.

### The name of the game

ABBAWORLD made its debut in London in January 2010 and was then relocated to Melbourne, Australia, where it opened in June. “The idea of Touring Exhibitions is to create compelling exhibitions that can be easily dismantled and reassembled somewhere else. They are truly targeting a new, promising market segment,” O’Connell concluded. “Barco did a great job in helping us facilitate this event and might well be our ‘name of the game’ for coming projects too.”