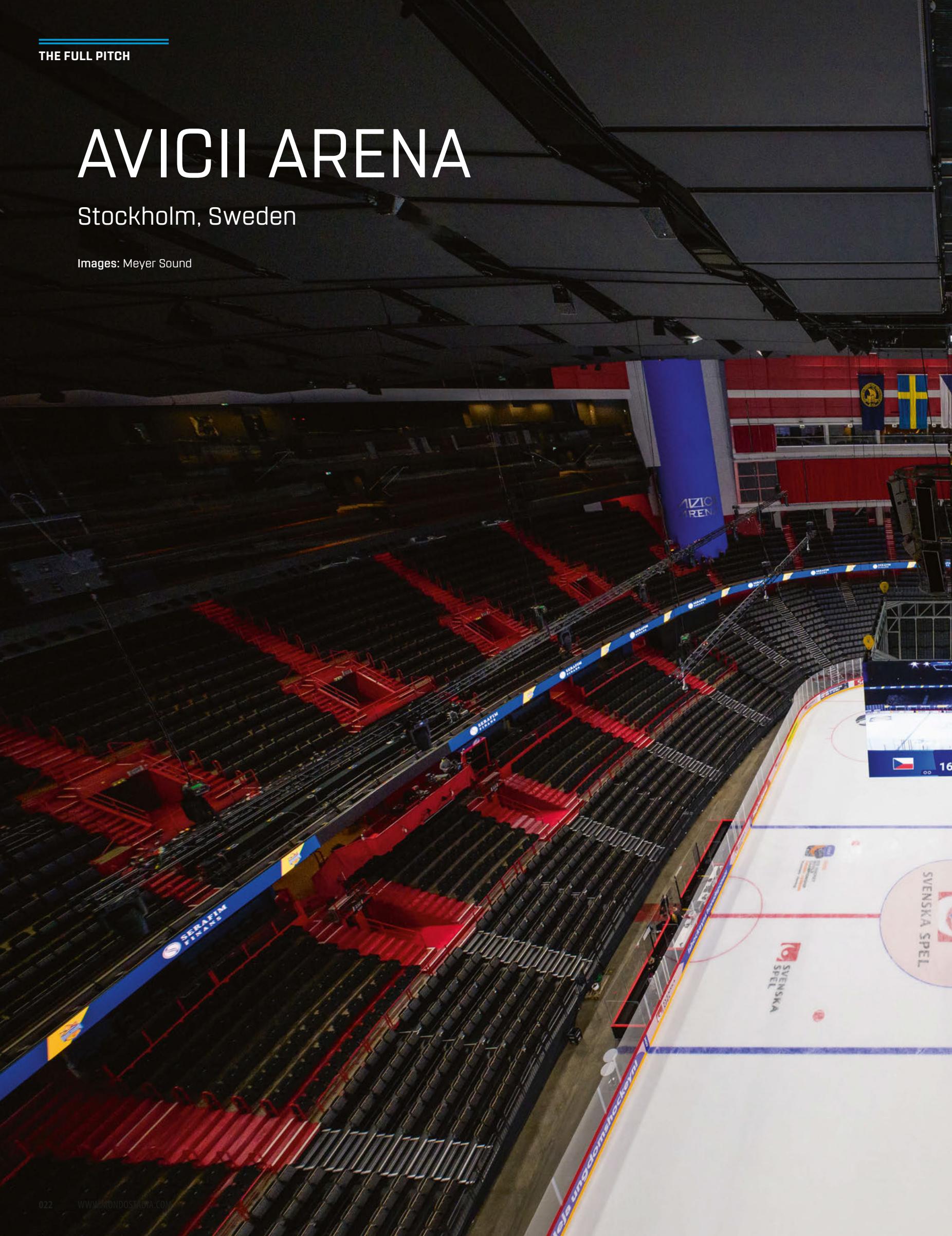


# AVICII ARENA

Stockholm, Sweden

Images: Meyer Sound







**A**vicii Arena is one of Europe's most iconic venues—an architectural marvel and the largest spherical building on the continent. Towering 85 meters high and spanning 110 meters in diameter, the steel, concrete, and glass globe encloses more than 600,000 cubic meters of space, with seating for up to 14,000 for sports. As part of a comprehensive renovation, the arena now features a landmark Meyer Sound Constellation® acoustic system—redefining what's possible for sports events.

The project showcases a Constellation installation of unprecedented scale. By moving beyond traditional concert halls, it sets a new standard for how active acoustics, in concert with physical building acoustics, can transform the experience in massive, multipurpose venues. The system was designed by Meyer Sound's John Pellowe, project director for

Constellation, and Ana Lorente, senior acoustic engineer, in collaboration with Anders Jørgensen and the installation team at Danish AV integrator and consultancy firm Stouenborg, based on the original concept from acoustician Adam Foxwell and Sebastian Holm from Efterklang.

"This is not a typical Constellation system," Jørgensen says. "We call it an audience enhancement system. It's designed to create the feeling of being embraced by the crowd—so spectators can actually hear each other, even across such a vast space." For sporting events, Constellation's real-time processing ensures that crowd noise, chants, and music are evenly redistributed throughout the arena to elevate the emotional connection. "One of the key motivations for this install was ice hockey," he continues. "In Sweden, fans sing to each other from opposite ends of the arena. Before the upgrade, fans couldn't hear one another—now they can."



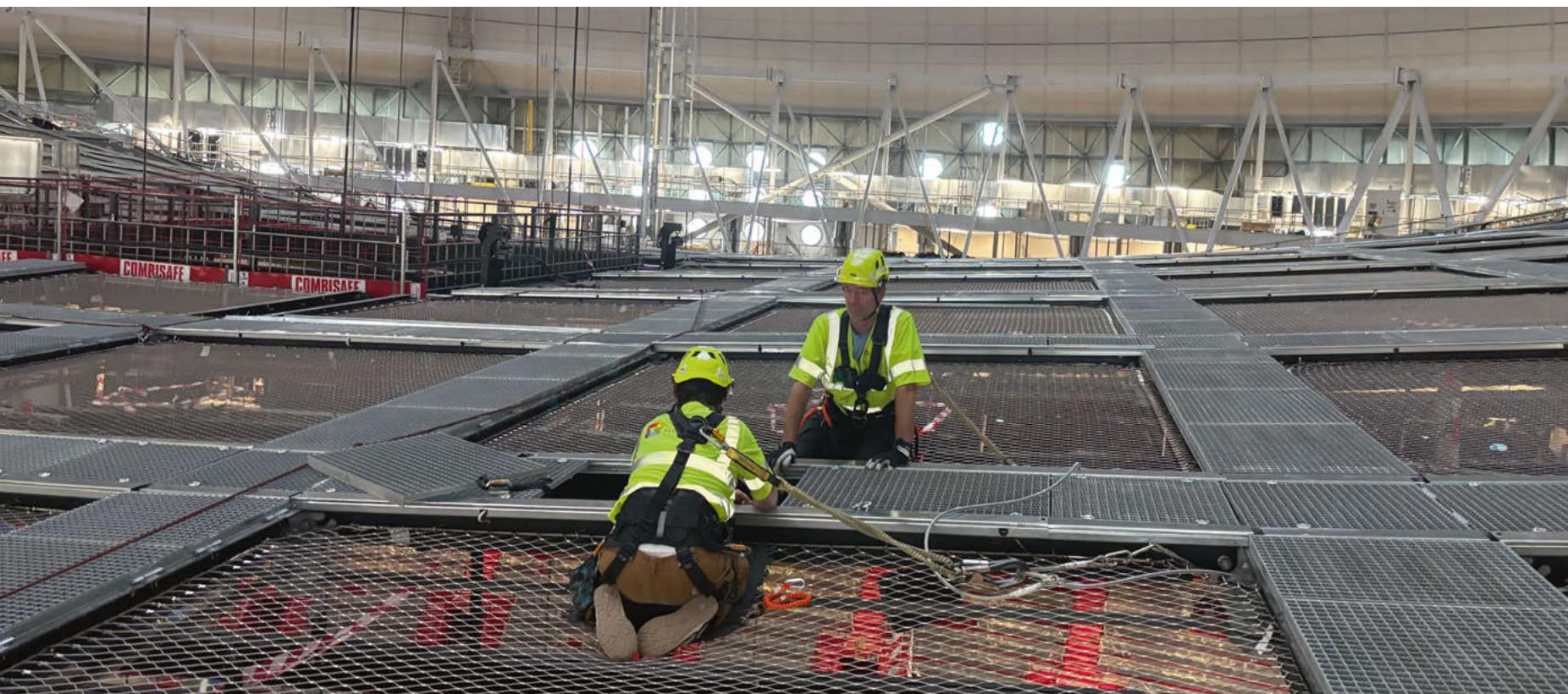
Achieving that kind of seamless coverage in a venue of this scale required extraordinary precision. “The grid is 35 meters above the arena floor. You can’t just send someone up to tweak a speaker angle. It all had to be perfect on arrival,” says Pellowe.

The retrofits, based on an array of 12 Meyer Sound ULTRA-X40™ and 72 ULTRA-X42™ compact point source loudspeakers and 72 shotgun microphones, are all precisely angled and suspended from a custom-built acoustic ceiling. “The ceiling is shaped like a Pringle potato chip—bent in two directions,” says Jørgensen. “That introduced challenges for how we could mount, aim, and space the speakers and microphones.” The new acoustic ceiling, designed by Efterklang, dramatically improves the reverberation time of the venue and is a key in allowing the Constellation system to work as designed. Everything is driven by Meyer Sound

Galileo® GALAXY network platforms and the NADIA™ integrated digital audio platform.

The entire system is segmented into 12 distinct zones, enabling precise spatial control. “We’re redistributing the excitement,” says Pellowe. “If the north end of the arena starts a chant or cheer, the system can carry that energy across the entire venue. It’s about creating a more unified and visceral experience.”

The project’s time constraints were extreme. What would typically be a three-month on-site installation had to be completed in just two weeks due to scheduling demands surrounding the 2025 IIHF World Championship. The Stouenborg team pre-built and tested the entire system in their Copenhagen workshop, with each loudspeaker and microphone pre-angled, rigged, and labeled for pinpoint placement. “We knew we had zero margin for error,” says



Jørgensen. "That meant months of planning, modeling, and building off-site so that the install could go up without hesitation. We created a suspension system that would work. Each speaker had its own individual angles and off-center mounting."

Spacemap Go functionality is built into the system, allowing access to immersive effects without adding complexity. "We created six different presets that you can choose from with six inputs," says Jørgensen. "Each of those inputs is routed differently depending on the preset. You just load one, listen, and go—that kind of behavior is what we're aiming for."

The Avicii Arena project reflects an expansion in Meyer Sound's approach to large-scale venue audio. "We're proving that immersive audio and active acoustics have value far beyond the concert hall," says Pellowe. "It's about delivering a richer, more connected audience experience."

The new Meyer Sound system—featuring Constellation

active acoustic technology and Spacemap Go spatial sound design tools—made its debut during the 2025 IIHF World Championship (May 9–25), delivering powerful, immersive sound engineered to match the venue's monumental scale and architectural ambition.

"We wanted to create a space that delivers more than just sound—it brings people together," says Mats Viker, CEO of Stockholm Globe Arena Fastigheter AB, the venue's owner. "Whether fans are cheering a goal or on the edge of their seats in overtime, Constellation makes every moment feel shared."

# Acoustics that transform.

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