Carmen®
Mastering acoustics in auditoriums
Control the acoustics of your venue to enhance your performances
For the comfort of musicians and an optimal listening experience for audiences, every type of performance requires specific acoustics.

With Carmen®, your venue becomes completely versatile, thanks to customized acoustic configurations:

- Symphony concerts
- Concertos
- Operas
- Chamber music
- Choral performances
- Ballets with orchestra
- Theater

Preserving natural acoustics
Carmen integrates active cells—each of which comprises a microphone and a loudspeaker—into the walls and ceiling of the performance venue. These cells modify the acoustic characteristics of the walls of the venue virtually, thereby enriching its sound field and fine-tuning its acoustics.

For us, Carmen is an essential tool, enabling us to please even our most discerning audiences and musicians. We’ve been using it for more than twenty years already, for the operas and performances of the Philharmonic Orchestra of Monte Carlo.

In 2021, in order to ensure the durability of the system, we asked the CSTB to completely update the equipment. We now have a new set of acoustic configurations, and the system has been upgraded with the latest technological advances, which we hope to use for the next twenty years.

Enzo
Sound Director, Grimaldi Forum, Monaco

Like the CSTB, at FrenchFlair Audio, we insist on the highest standards for flawless acoustic quality. We’re proud to bring our expertise in designing professional speakers to the Carmen system, so you can provide your audience with a top-notch immersive experience.

Guillaume Boda
Founder of FrenchFlair Audio

The CSTB has decided to partner with FrenchFlair Audio, to eliminate compromise between technology and aesthetics, ingenuity and elegance. Speaker systems made in France, designed and tailored to your architecture.

Designed to deliver high-end audio performance, AS-8 speakers provide powerful output and incredible accuracy of tone. Thanks to the modularity of the installation system, the acoustic sources can be positioned optimally throughout the space.

Although they meet all of the stringent technical requirements of the Carmen system, thanks to their compact shape and customization options, the speakers can also adapt to the aesthetic requirements of your performance venue.
High-end expertise
The CSTB conducts a preliminary acoustic study, based on a 3D model of the performance venue, to determine the number and position of the system’s elements.

Once the system has been installed, we fine-tune the various acoustic configurations and provide technical support. Throughout the project, our experts work closely with the acoustic engineers, architects and project owners to ensure the success of the system.

Come attend a demonstration at one of our outfitted venues, in order to appreciate how our system performs.

Examples of achievements

Théâtre des Quinconces, Le Mans
- 825 seats • Volume: 4,700 sq. meters
- 32 cells and voice reinforcement
- Reverberation time without enhancement: 1.0 s
- 9 acoustic configurations extending reverberation time to 2.1 s

Grimaldi Forum, Monaco
- 1,900 seats • Volume: 13,500 sq. meters
- 29 cells and voice reinforcement
- Reverberation time without enhancement: 1.2 s
- 6 acoustic configurations extending reverberation time to 2.0 s

The CSTB has 20 years of experience in the installation of acoustic variability systems for performance halls such as Grimaldi Forum Monaco, Théâtre Mogador and the Brighton Dome, as well as more than 30 years of experience in the natural acoustics design of internationally renowned concert halls, such as the Beijing Opera House, the Bastille Opera House and the Salle Pleyel concert hall.

FrenchFlair Audio will captivate you with the acoustic quality and design of its speakers, which can be found at the Louis Vuitton Foundation, the Elysée Pavilion and in the restaurant of the Salle Pleyel.

Pricing
Carmen® system support and expertise.
Starting at €260,000 excl. VAT*

Basic rate - may vary according to the architecture and capacity of the performance venue.

In addition to Carmen®, a system resulting from many years of research, the CSTB offers you its expertise and customized acoustic services.

* Basic rate - may vary according to the architecture and capacity of the performance venue.

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