



# Sound Solutions for Theatres and Halls

[nexo-sa.com](http://nexo-sa.com)

Thinking. Inside the box.

**NEXO**

A  
Yamaha  
Group  
Company





# NEXO

# Your partner in precision sound

NEXO leads the market in value-engineering innovative high-performance sound systems which have a distinctly musical character, and packaging them as affordable business-friendly solutions. All NEXO products and services are designed to eliminate the audio problems commonly found in communal spaces, and, by so doing, enhance the entertainment experience in the public environment.





# The Perfect Combination



As sound professionals, at Yamaha and NEXO we are dedicated to helping our customers create the most appealing, effective sonic environments for their needs.

Yamaha has more than a century of experience in musical instrument manufacture, enriched by its expertise in processing and delivering quality sound and Industry-leading electronics. NEXO has been designing and building world leading audio solutions for over 40 years, the technologies developed at our own R&D centre are used and highly valued by distinguished engineers in professional audio and broadcast applications worldwide. That background and dedication inspire the sound systems we offer for commercial installations, giving our customers solutions that are ideally tailored to their individual needs.

Together YAMAHA and NEXO deliver an unrivalled Professional Audio solution for any theatre and hall.

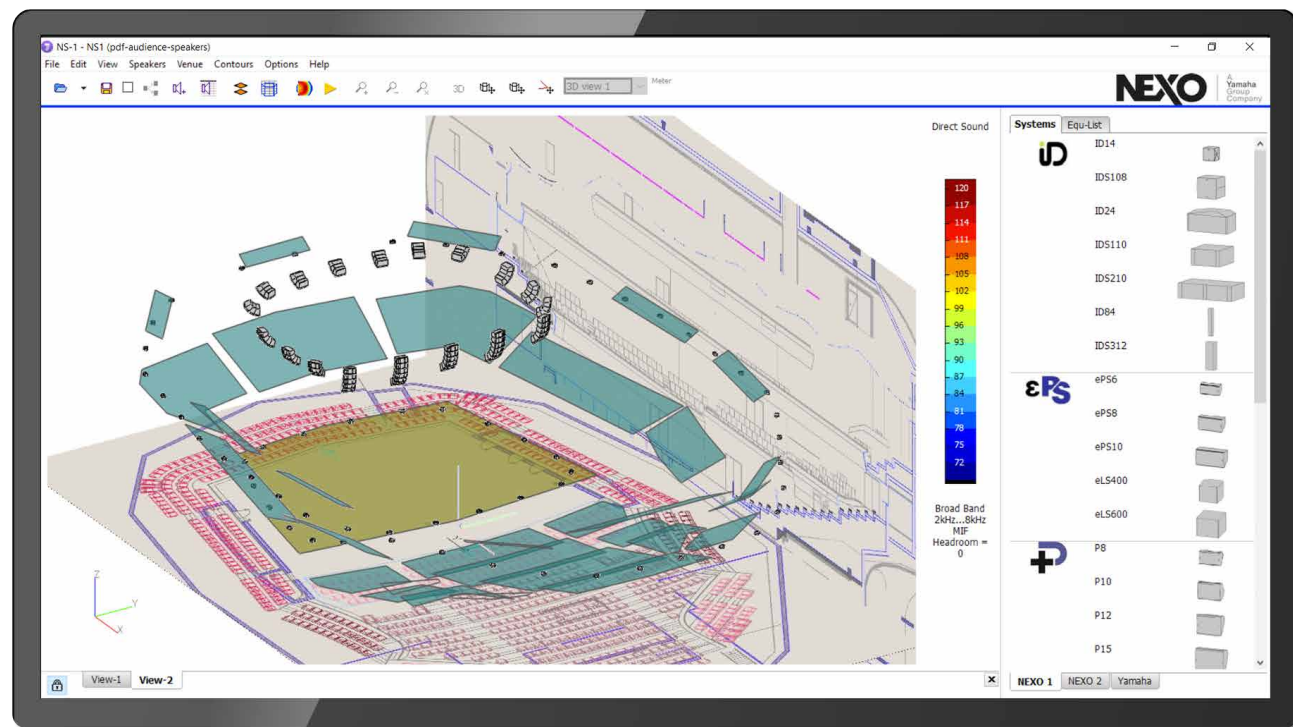


# NS-1

A powerful and intuitive system configuration and simulation tool ensuring uniform SPL coverage in any theatre with any NEXO and Yamaha system.

Whether or not you already know what NEXO system you intend to use in your theatre or hall, NS-1 is the entry point to your project, helping you to configure any line source or point source from NEXO and Yamaha's catalog, thanks to intuitive yet powerful tools applied to your own geometry. NS-1 not only assists in achieving the best SPL

coverage, but also certifies that mechanical constraints are satisfied. Finally, NS-1 enables you to create and present robust sound design proposals, including the speaker list, and also gain and delay to apply in the amplification and control chain.



# AFC

ACTIVE FIELD CONTROL

## Take control of space

Working closely with Yamaha AFC Image, NS-1 includes AFC Design Assistant which provides the necessary guidelines for the required type, number and placement of speakers to provide fully immersive audio. The result is a new and much more engaging audience experience, further enhanced by new possibilities in sound design.





# Advanced Manufacturing Processes



Each and every one of NEXO's loudspeaker cabinets is designed and manufactured in France. Since 2007, the company's headquarters have been located in modern purpose-built facilities, just 30 km north of Paris and close to Charles de Gaulle International Airport.



Highly-automated  
manufacturing plant



2 optimized production  
lines 5000 Sqm/each



Rigorous processes /  
Quality management system



# Modern Purpose-Built Facilities



Each new system begins with sophisticated computer simulations, executed by specialised proprietary software. The entire electro-acoustic signal chain is thoroughly modelled and product performance rigorously evaluated to maximise system performance.



R&D centre : 2000m<sup>2</sup>  
dedicated state of the art  
facilities



Anechoic chamber : 12m x  
8m x 6.5m, this chamber  
allows the R&D team to  
measure down to 28Hz.

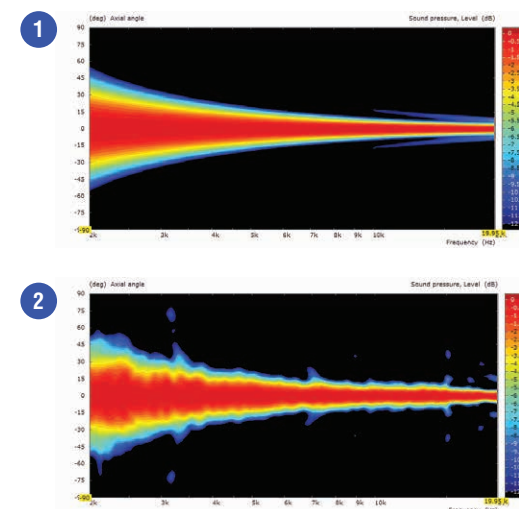
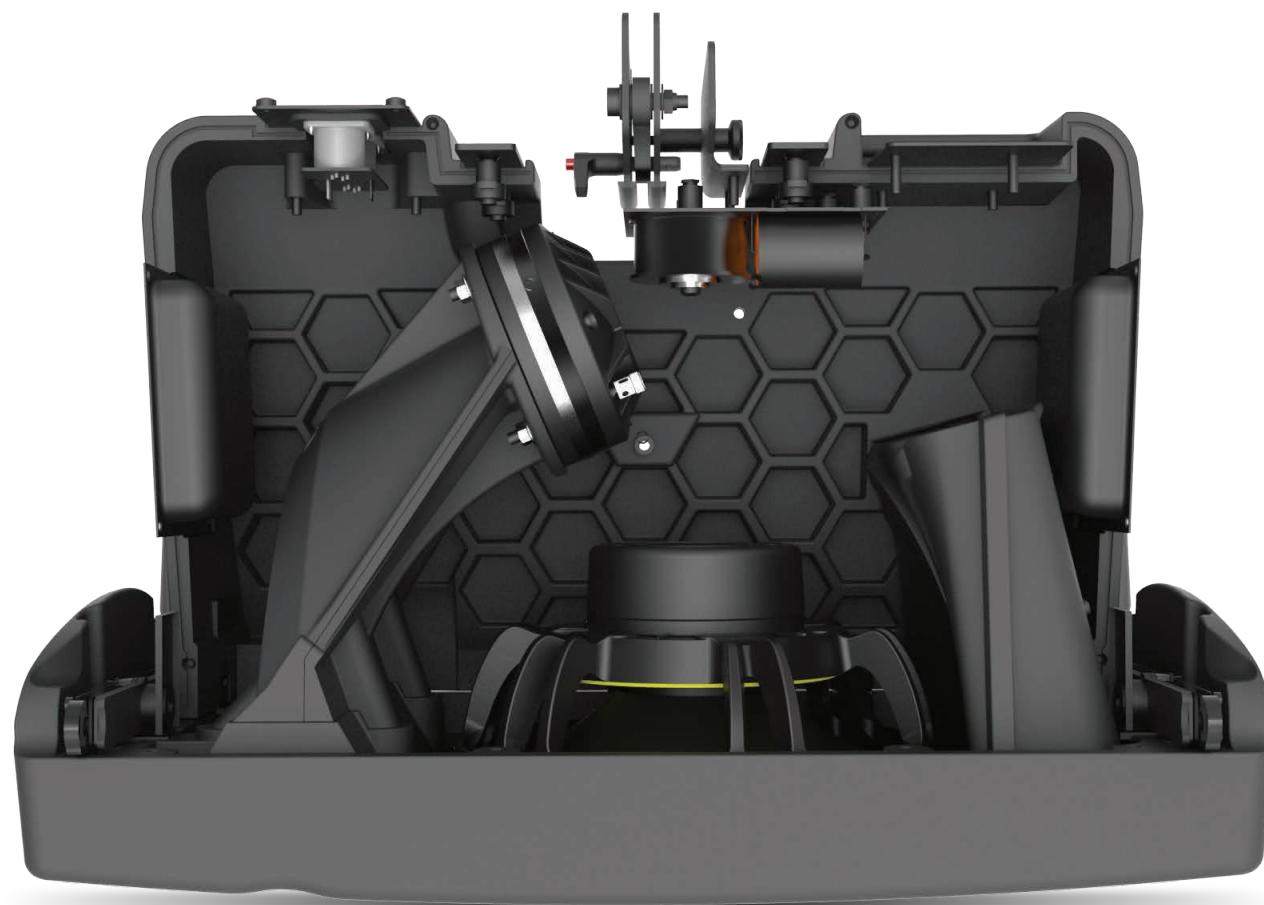


Passionate, rigorous  
and high level engineers



# Thinking. Inside the box.

What separates NEXO from its competition is its innovative, integrated systems approach to loudspeaker research and development. The company's R&D mission to innovate is acknowledged in the form of numerous patents, some of which are included here.



## The HRW Hyperbolic Reflector Waveguide

Conventional speakers cannot be coupled in the high frequency range if not generating a continuous wavefront along the height or the width of the enclosure. HRW waveguide converts the spherical wave front generated by a high frequency compression driver into a flat or convex wavefront by means of an acoustic reflector. It allows speaker cabinet acoustical coupling without interference up to 20 kHz, with inter-cabinet angle sequences ranging from 0° up to 30° or more.

➡ Used in GEO M Series, GEO S1210 and S1230, STM M28 and M46 cabinets.

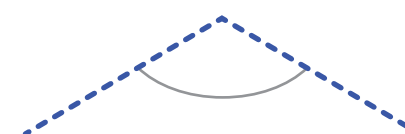
## The CDD Configurable Directivity Device

CDD flanges are superposed to a horn or a waveguide to modify its dispersion characteristics. The same speaker cabinet reference can therefore produce a wide range of directivity features, from 80° or (narrow coverage needed at long distances) less to 120° or more (wider coverage needed at short distances).

Used in GEO M Series, GEO S1210 and S1230, STM M28 cabinets. ➡



Standard 80° horizontal coverage



120° horizontal coverage

## The PDD Phase Directivity Device

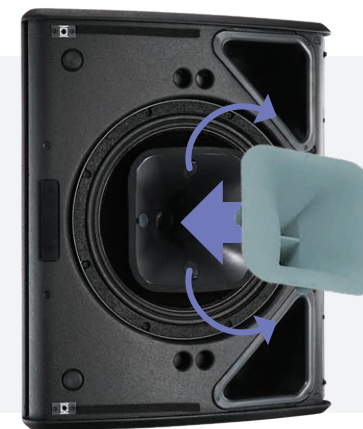
Coupled direct radiation drivers will interfere when the distance between them exceeds half a wavelength, which sets a strong constraint on cross-over frequency to high frequency drivers (these are very likely to distort below 1 kHz). The Phase Directivity device splits the radiating surface of the driver in 2, thus dividing by 2 the acoustic distance between coupled devices.

➡ Used in GEO M Series, GEO S1210 and S1230, STM M28 cabinets.



# Perfect Coverage Made Easy

NEXO P+ and ID Series speakers make it quick and easy to select the optimal HF dispersion for every application, and a comprehensive range of mounting hardware makes installation similarly straightforward.



## Variable HF Directivity

Optimise the HF dispersion for your application in just a few moments. The dispersion characteristics of the P12 and P15 can be changed in seconds through the addition of optional magnetic flanges. The standard cabinets use a 60° x 60° horn with additional 90° x 40° and Asymmetrical (PS Type) 60° - 100° x 40° also available. By default, the P8 and P10 cabinets use a 100° x 100° horn. In the case of these cabinets, the dispersion characteristics can be changed by fitting an optional, rotatable 110° x 60° horn.

## Rotatable Horn

The ID24 features a unique user-rotatable horn that lets users quickly select between 120° x 40° or 40° x 120° HF dispersion to achieve perfect coverage in difficult spaces such as under balconies. You don't even have to remove the grille or open the cabinet. And the versatility of the ID24 is further enhanced by a selection of horn options with dispersions including 60° x 60°, 90° x 40°, 120° x 40° and 120° x 60°.



(no tools required)



## Versatile Mounting Hardware

A comprehensive range of mounting hardware makes it quick and easy to install NEXO loudspeaker systems in theatres of all types and ages.





# Custom Solutions

NEXO loudspeaker systems can be specified in custom RAL colours for seamless integration into all kinds of theatre interiors, modern and historic.

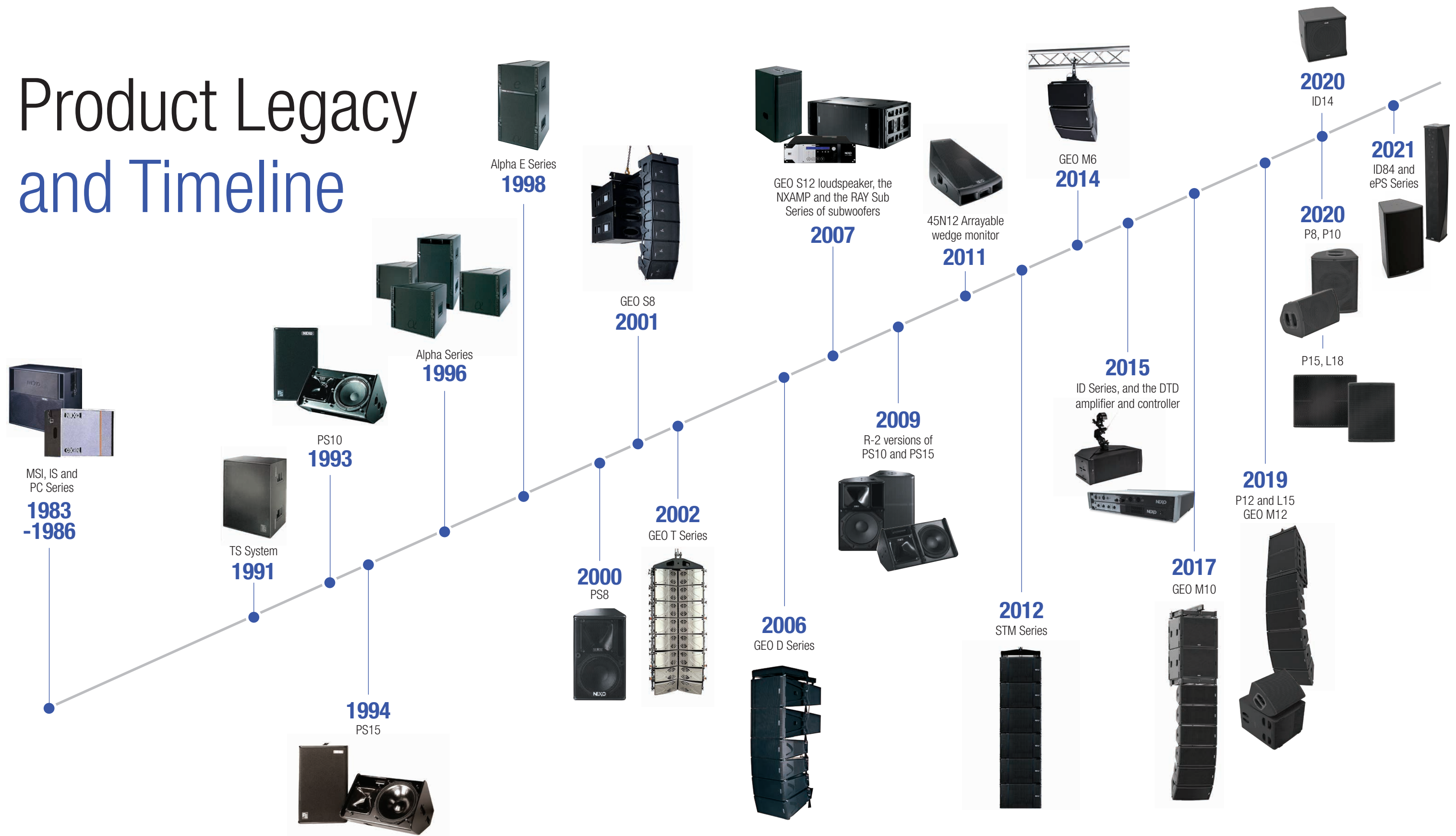


## A global sales & support network

NEXO systems are distributed by a network of 50 independent distributors worldwide, each chosen carefully for their expertise and provision of high-level technical and customer support.



# Product Legacy and Timeline







ISO 9001

World Leading Manufacturing Facilities



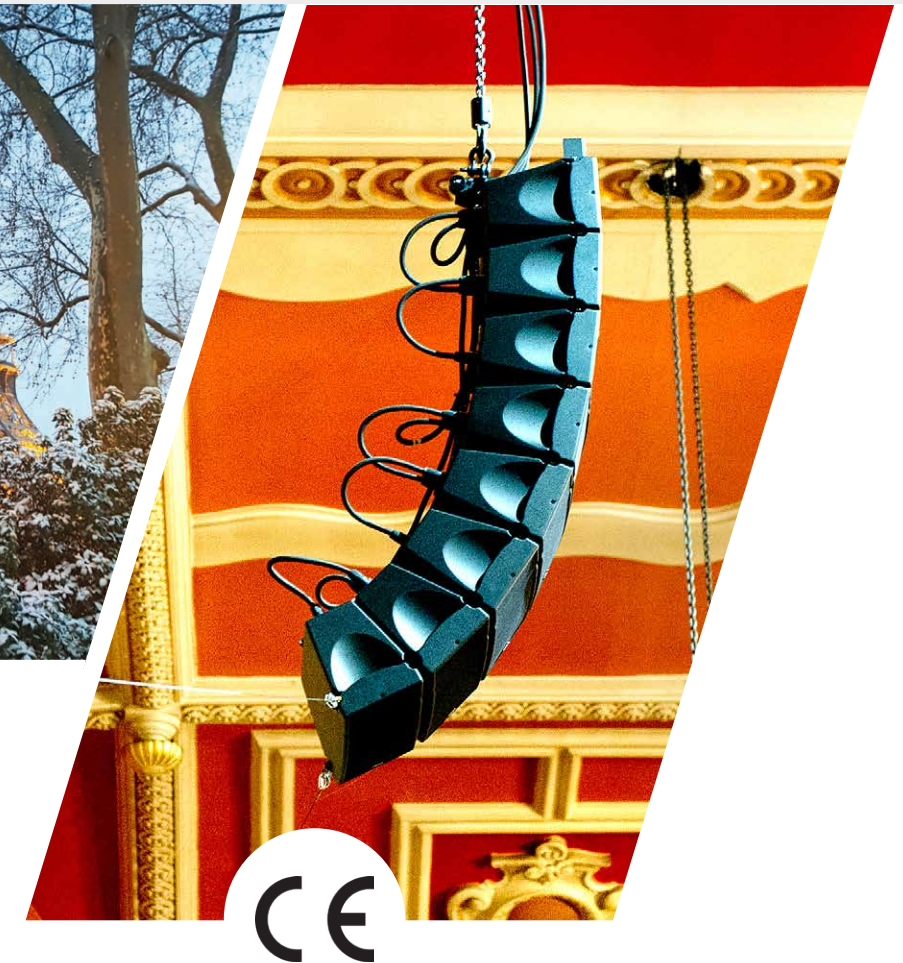
TÜV Certification

Safety Guaranteed



IP 54 Rating

Weather Resistant



EC Declaration of Conformity

Quality and Reliability

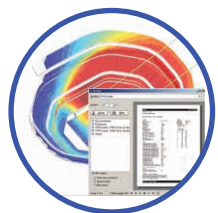
# Quality & Certifications

In order to meet our customers' requirements and enhance their satisfaction, NEXO is continually identifying the best options necessary to set an exceptional standard of products and services. The high quality of our products and services is endorsed through certification and a commitment to recognised methodical processes.



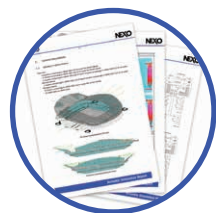
# Dedicated Support

At NEXO, we believe in supporting the consultant, not in trying to be one!



## Before

System Design  
Training  
Demos



## During

Installation Support  
Acoustic report  
Assistance



## After

Hotline  
Feedback  
Technical Docs

[technical@nexo.fr](mailto:technical@nexo.fr)





NS-1

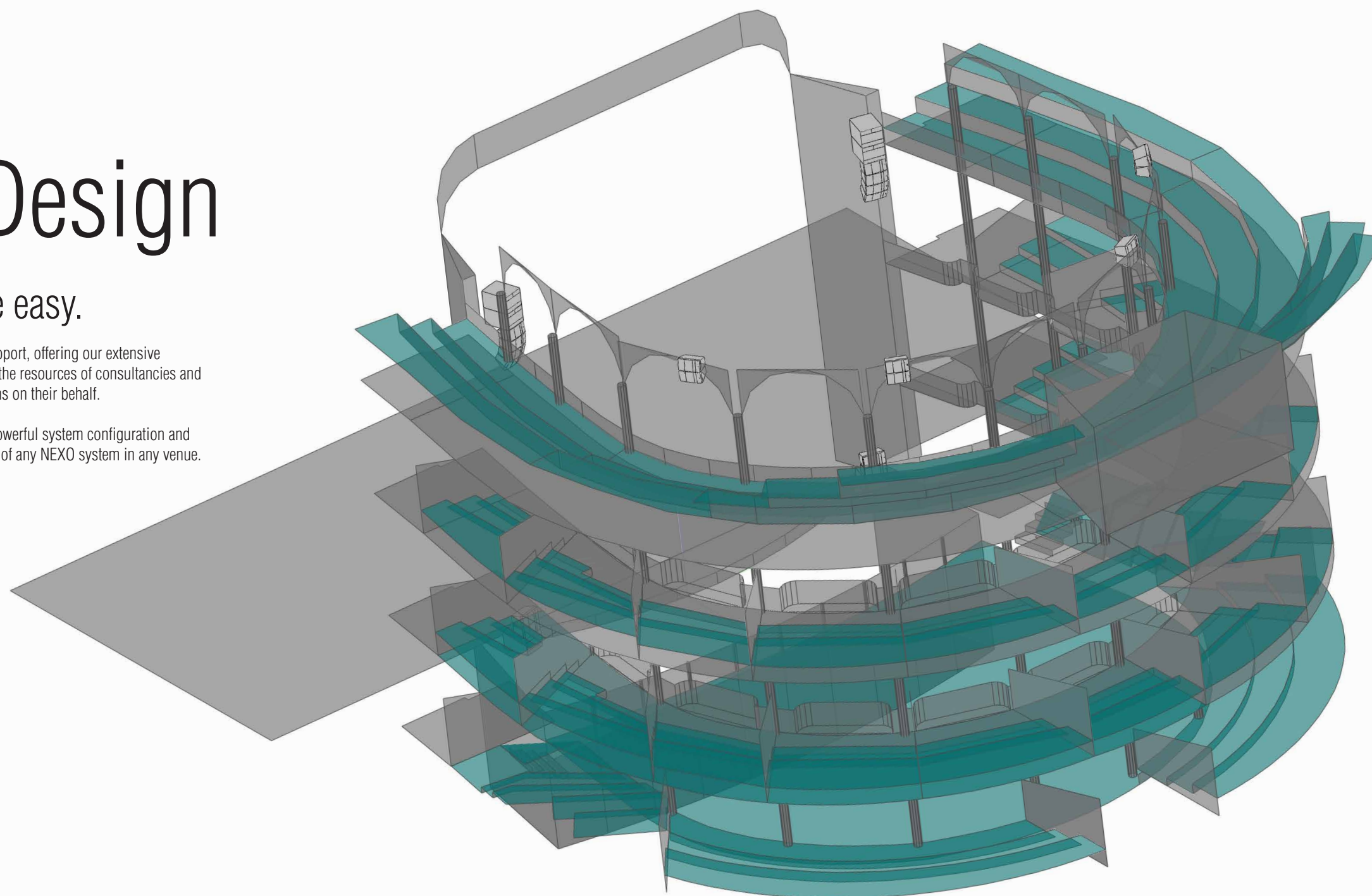
# System Design

Perfect coverage made easy.

NEXO is able to provide full sound system design support, offering our extensive experience and powerful modelling tools to augment the resources of consultancies and integrators, or even to provide complete venue designs on their behalf.

At the heart of our design process is NS-1, NEXO's powerful system configuration and simulation tool which ensures uniform SPL coverage of any NEXO system in any venue.

Your venue is just a click away.

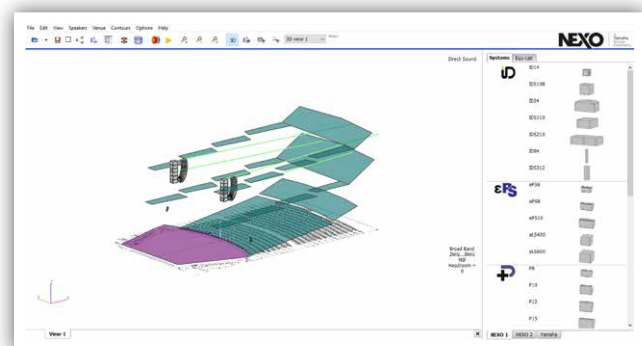
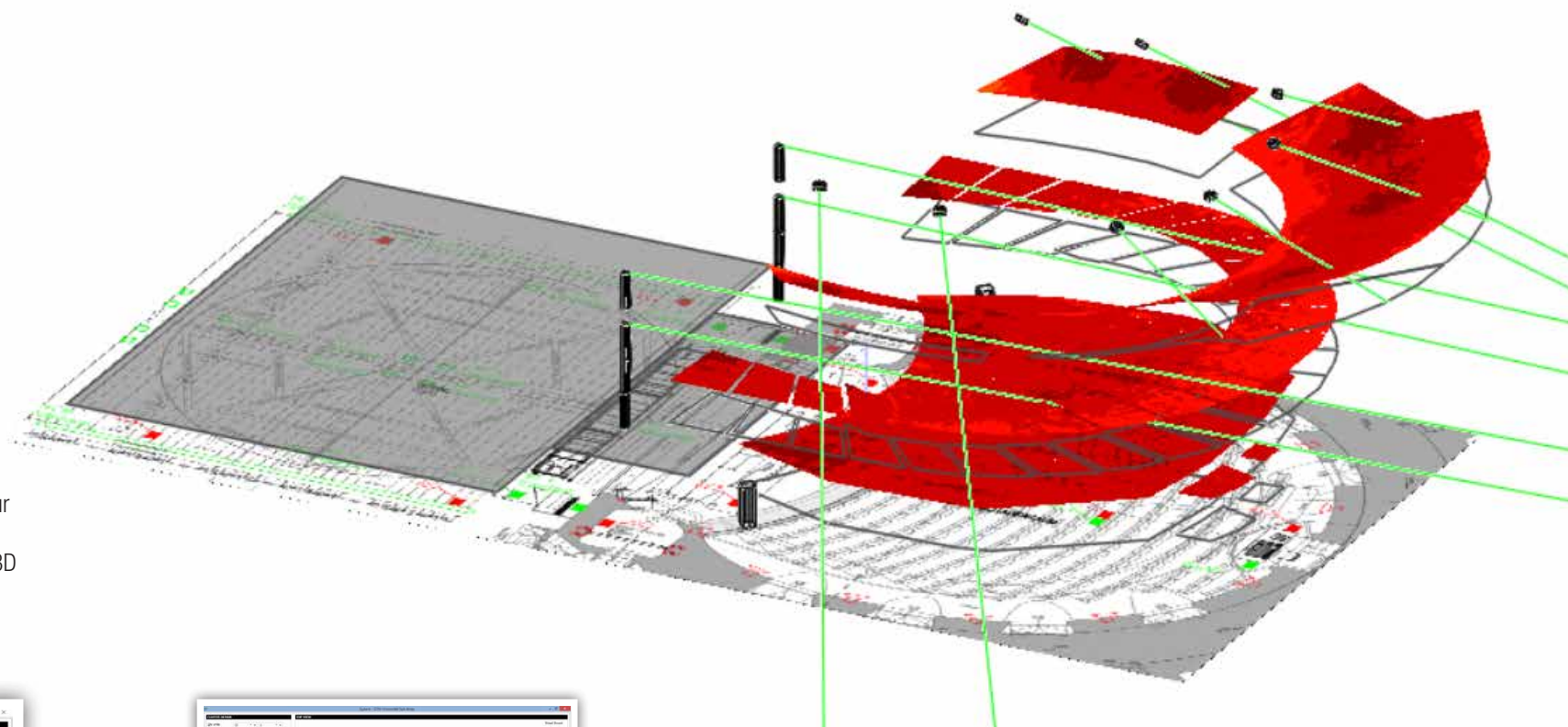




NS-1

# Complex Calculations

NEXO enjoys close collaboration with the world's leading experts in electro-acoustic simulation programming. NS-1 models the radiating behaviour of the speakers by spatially sampling them into a large number of monopoles and dipoles. In every mesh point of the venue's surfaces, the contribution of all these sources is calculated for the frequency band of your choice. The simulation results are mapped to the surfaces, giving a 3D representation of the SPL coverage.



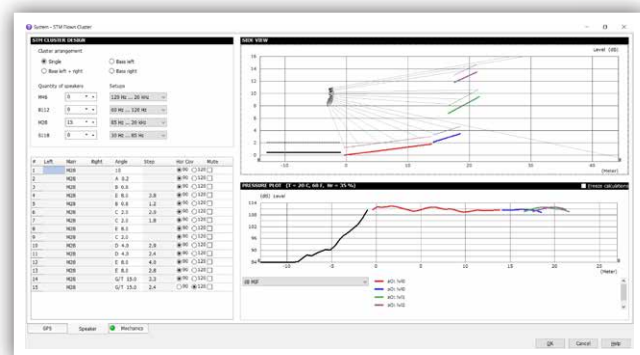
## All NEXO speakers on tap

Once the geometry is defined, loudspeakers can simply be dragged and dropped into the project, and configured into flown or stacked clusters.

## Surfaces

Sound pressure can be received differently on the venue surfaces. Venue items can be:

- Simple surfaces
- Standing-up or seated audience areas
- No audience areas, simply taken into account as obstacles
- Hidden to calculation.



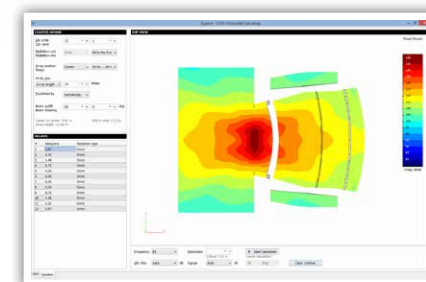
## Line-source calculations

NS-1 helps you to find the perfect series of angles for your clusters, by calculating acoustic pressure on the surfaces. Results can be displayed using NEXO's meaningful dB MIF, or other metrics of your choice.

## Direct sound and time coherency

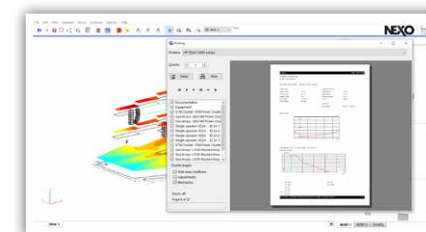
NS-1 performs direct sound calculations on your geometry. They allow you to tend towards the best speaker ratio, gains and positions to match your target coverage.

Furthermore, NS-1 makes it easy to align the delays of the speakers thanks to time-coherency calculations.



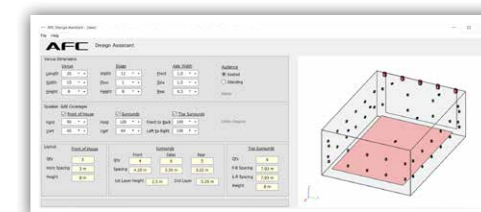
## Sub design

NS-1 makes it easy to control the beam steering of horizontally arranged sub-arrays. Optimal electronic delays are calculated depending on the sub settings (omni/cardio, etc.), the beam width, and steering angle.



## Report editing

A complete speaker list, with specified positions, angles, gains, delays and pressure plots, can be exported from NS-1.



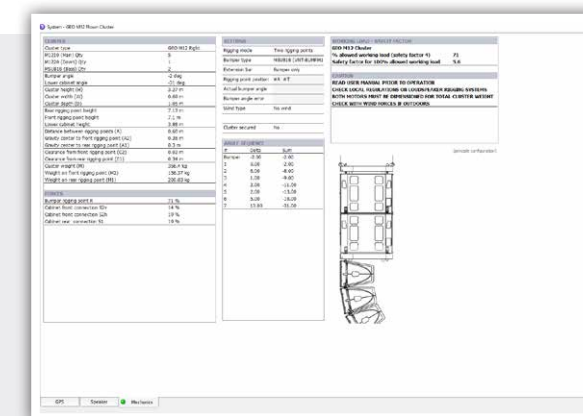
## AFC Design Assistant

A shoebox model immersive design calculator which defines spacing and positions for Front of House, surround and top speakers based on venue dimensions and speaker coverage characteristics.

## Fly safe

For NEXO, safety is the number one priority. Capable of so much more than acoustic predictions, NS-1 also calculates the working load of the flown clusters, and gives you the green light.

NS-1's mechanical database is always double-checked by an independent expert. The advanced algorithm takes into account the hanging points, the bumper type and, most importantly, the angles between the speakers, providing an accurate result that is TÜV certified.



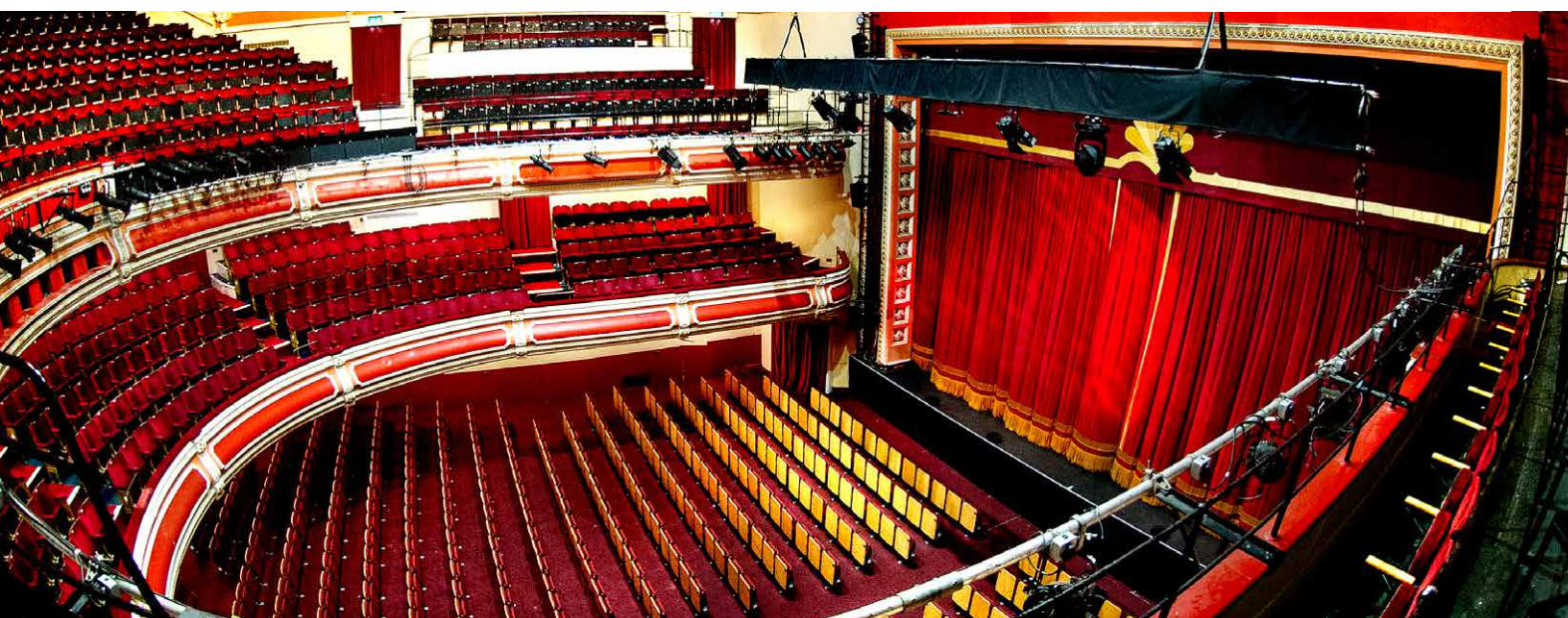
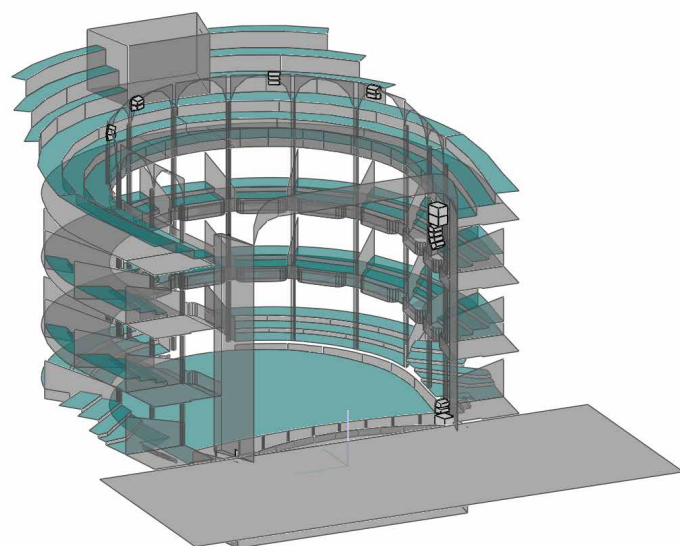
 Mechanics



System Design:

# Panama National Theatre

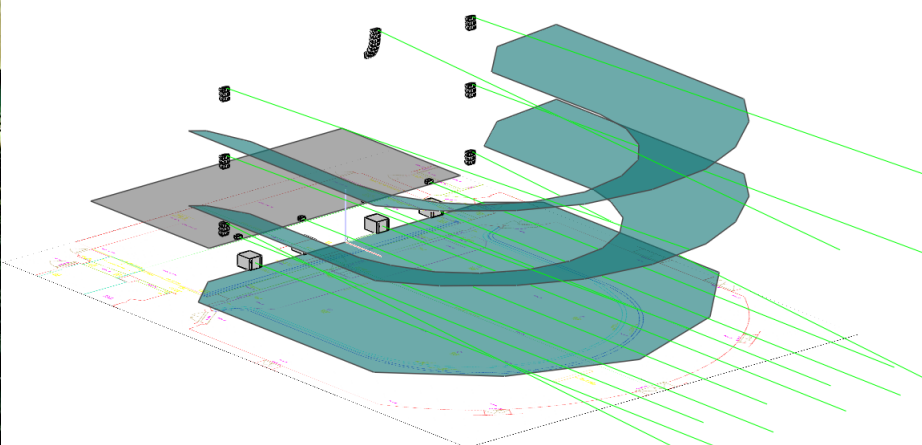
Panama



System Design:

# Victoria Theatre

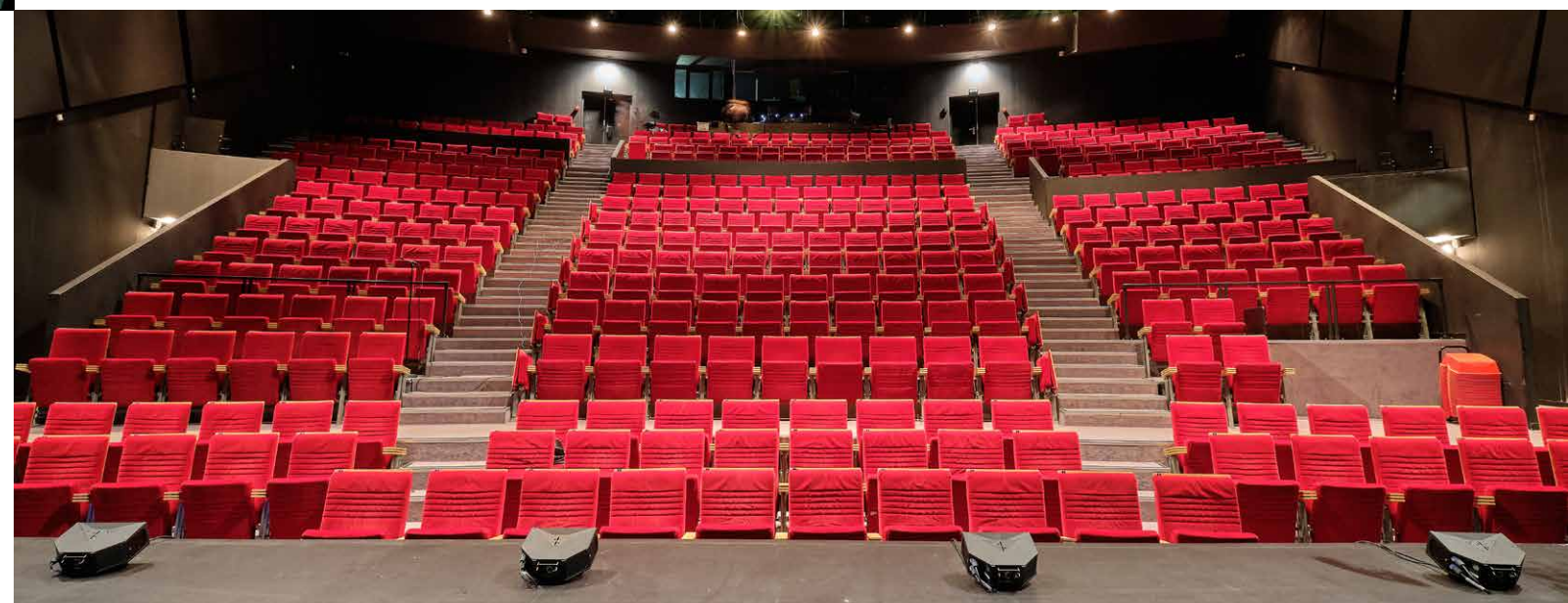
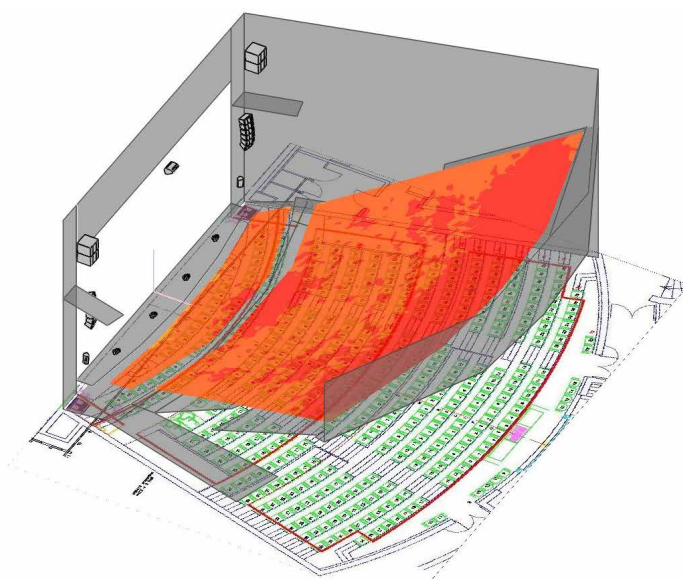
Halifax, UK



System Design:

# Théâtre des Bergeries

France





# Mechanics

## Fly safe

For NEXO, safety is the number one priority.

Capable of so much more than acoustic predictions, NS-1 also calculates the working load of the flown clusters, and gives you the green light.

NS-1's mechanical database is always double-checked by an independent expert. The advanced algorithm takes into account the hanging points, the bumper type and, most importantly, the angles between the speakers, providing an accurate result that is TÜV certified.



CLUSTER	
Cluster type	GEO M12 Right
M1210 (Main) Qty	5
M1220 (Down) Qty	1
MSUB18 (Bass) Qty	2
Bumper angle	-2 deg
Lower cabinet angle	-31 deg
Cluster height (H)	3.27 m
Cluster width (W)	0.69 m
Cluster depth (D)	1.05 m
Rear rigging point height	7.13 m
Front rigging point height	7.1 m
Lower cabinet height	3.88 m
Distance between rigging points (A)	0.68 m
Gravity centre to front rigging point (A2)	0.38 m
Gravity centre to rear rigging point (A1)	0.3m
Clearance from front rigging point (C2)	0.02 m
Clearance from rear rigging point (C1)	0.34 m
Cluster weight (M)	356.4 kg
Weight on front rigging point (M2)	156.37 kg
Weight on front rigging point (M1)	200.03 kg

FORCES	
Bumper rigging point R	71 %
Cabinet front connection S2v	14 %
Cabinet front connection S2h	19 %
Cabinet rear connection S1	19 %

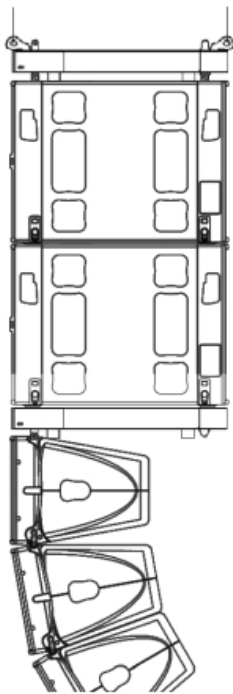
WORKING LOAD - SAFETY FACTOR	
GEO M12 Cluster	
% allowed working load (safety factor 4)	71
Safety factor for 100% allowed working load	5.6

**CAUTION**

Read user manual prior to operation  
Check local regulations on loudspeaker rigging systems  
Both motors must be dimensioned for total cluster weight  
Check with wind forces if outdoors

SETTING	
Rigging mode	Two rigging points
Bumper type	MSUB18 (VNT-BUMPM1)
Extension bar	Bumper only
Rigging point position	#A #T
Actual bumper angle	
Bumper angle error	
Wind type	No wind
Cluster secured	No

ANGLE SEQUENCE		
#	DELTA	SUM
Bumper	-2.00	-2.00
1	0.00	-2.00
2	6.00	-8.00
3	1.00	-9.00
4	2.00	-11.00
5	2.00	-13.00
6	5.00	-18.00
7	13.00	-31.00

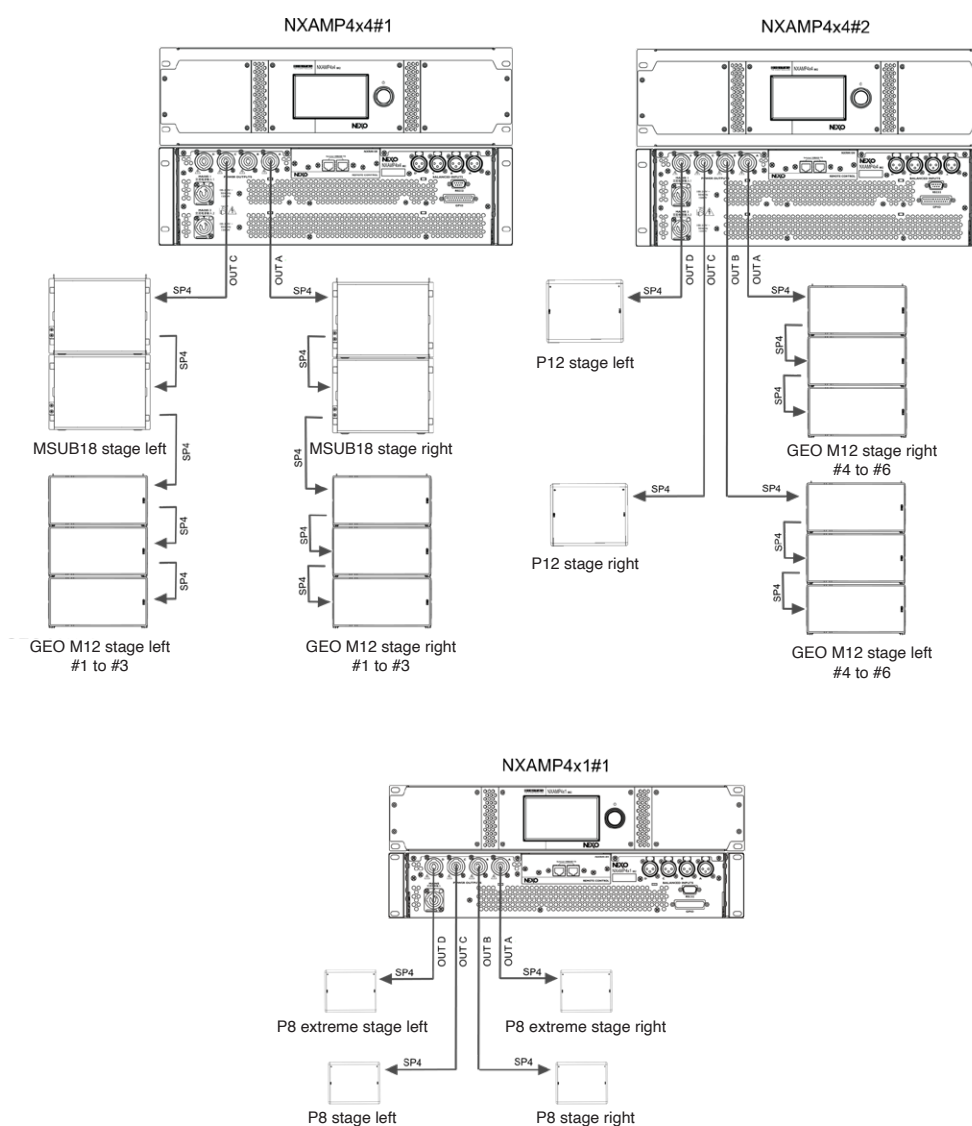
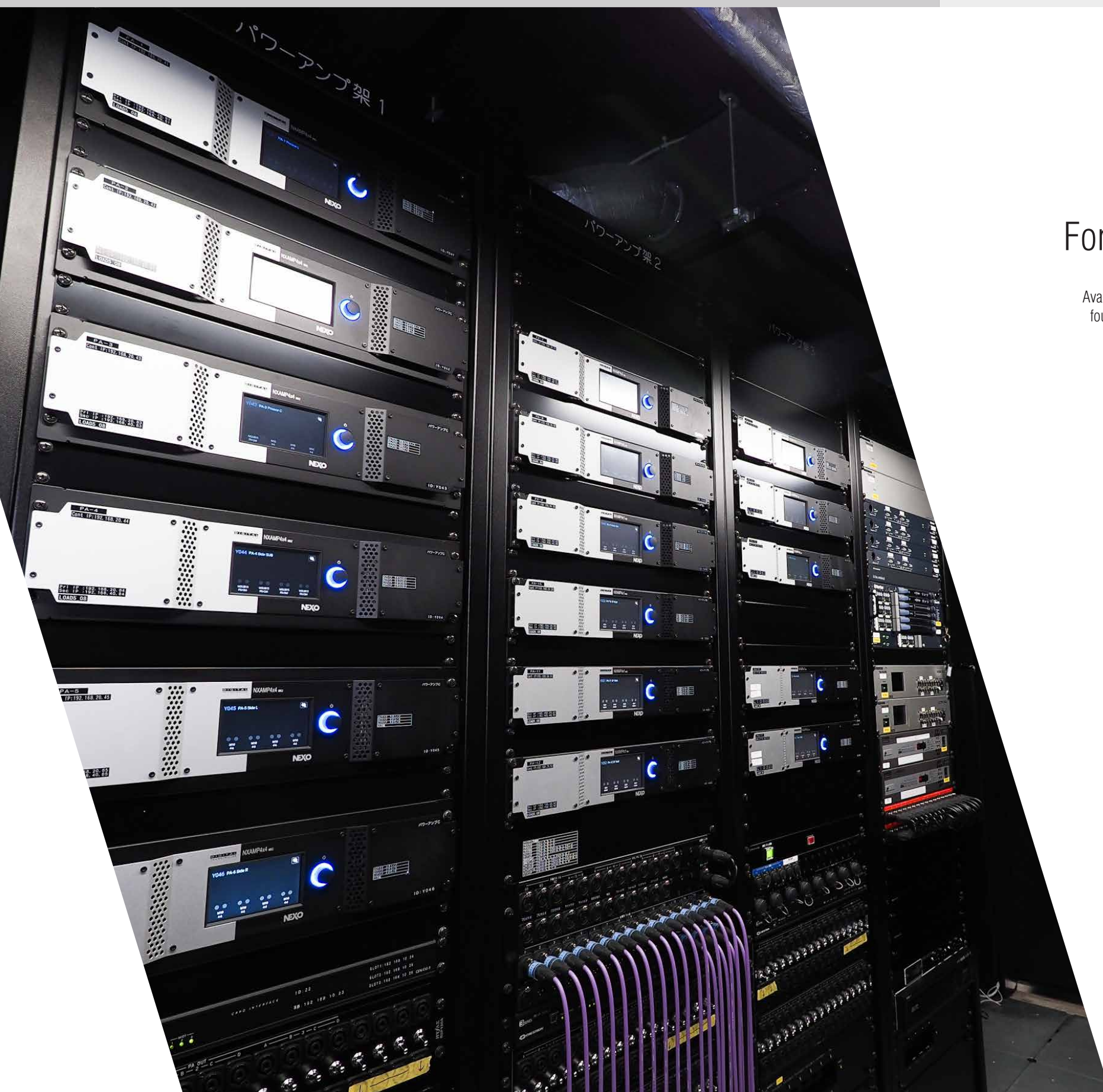




# Amplification | NXAMPs

Formidable power. Precision control. Flexible networking.

Available in 4 X 1300 Watts, 4 X 2500 Watts and 4 X 4500 Watts versions, the NXAMPMK2 combines advanced signal processing with four state-of-the-art Class D amplifiers to create a flexible, light-weight powering and control solution for NEXO loudspeaker systems.





# The Process

When it comes to specifying a complex technological service like an audio system for a theatre or hall, the decision-making process is not always a linear one.

Researching information for solutions to fulfil the requirement is where that process starts to become complex. Sound system set-ups for concert events are founded on very different criteria to those suited to a theatre. Choose your partners carefully, rather than being influenced by the “stardust” of which world-class bands used the loudspeaker systems last year! Read on to discover the vital criteria in the decision making process.





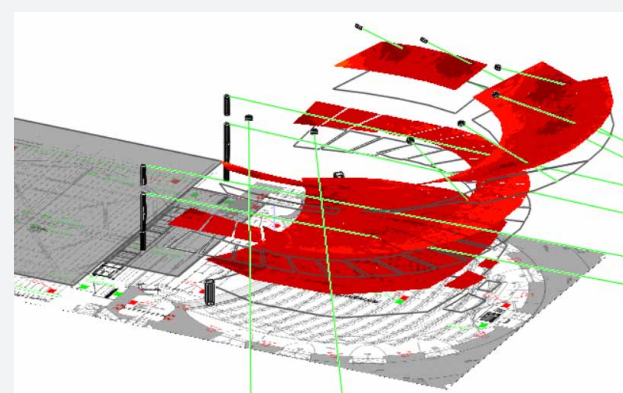
# Vital Criteria



## Conveying the emotions of the performance through the transparent amplification of speech and music

Clear speech intelligibility and a full frequency response are essential to ensure that the audience remains fully engaged with the performance and able to recognise and follow every subtle nuance of the drama, just as the writer, director and actors intended. It's also important to have plenty of power and headroom on tap, particularly where music is used to heighten the emotions and articulate the drama.

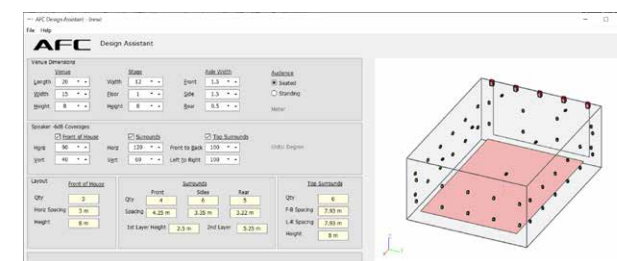
A NEXO sound system excels in these areas, while also providing the versatility that enables entertainment venues to stage a wide variety of repertoire to optimise their commercial opportunities.



## Providing perfect coverage to make every seat the best in the house

Theatre spaces can be complicated, particularly in older venues with multiple tiers, balconies and boxes. It's important that every audience member in every seat in the house experiences the same, high-quality sound, with even distribution of SPL and frequency response.

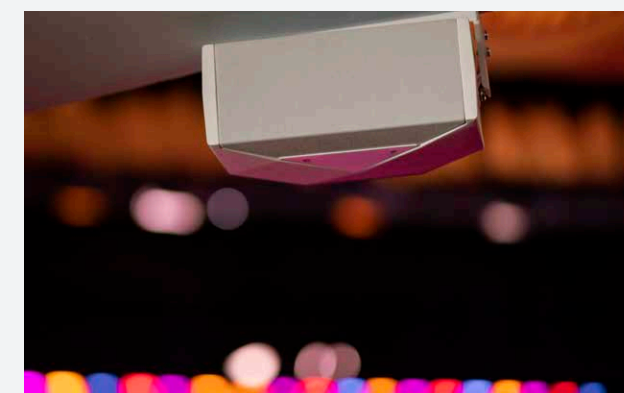
NEXO systems make it quick and easy for designers to vary the HF dispersion patterns to achieve consistent audience coverage, and the NEXO range encompasses speakers designed specifically to 'beam' sound into difficult spaces, such as under balconies.



## Respecting the 2 and 3-Dimensional image through AFC immersive algorithms

NEXO NS-1 system design software now includes Yamaha AFC Design Assistant, making it easy for sound designers to curate sophisticated sound and effects that follow the drama in 3 dimensions to create a fully immersive audience experience.

Recognised for the power and precision of their coverage, NEXO speakers are ideal for deployment in immersive audio applications, while Dante networkable NXAMP powered controllers provide a plug and play amplification and processing solution that enables the optimum combination of NEXO speakers to be configured.



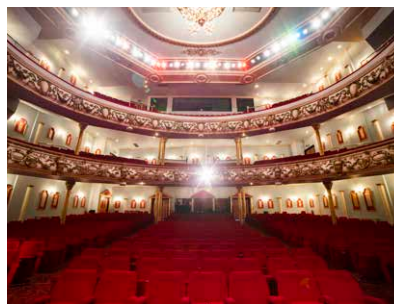
## Ensuring uninterrupted sightlines and a seamless integration into building design

Employing a number of Patented technologies, the performance of NEXO speakers is typically characterised by very high output from a compact cabinet size. So, a NEXO system is typically smaller than other systems, and subsequently less obtrusive in the space. This is particularly important in theatre applications such as front fills and under balcony fill ins, to ensure that the audience view of the stage is uninterrupted from every seat in the house.

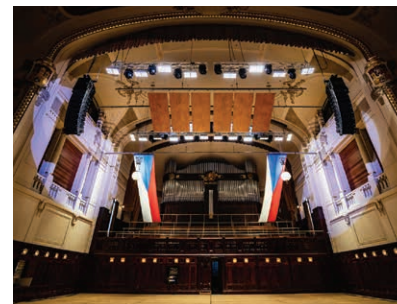
NEXO systems are also available in custom RAL colours, ensuring that systems fit seamlessly into the design of the building.



# High-Profile Contracts | Worldwide



Swansea Grand Theatre (UK)



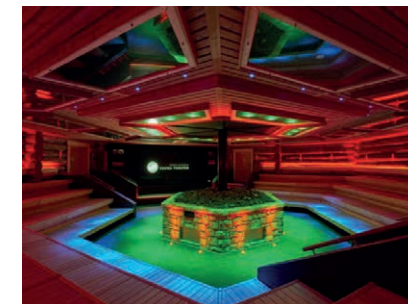
Municipal Hall (Prague - Czech Republic)



Rialto Theatre (Montana - USA)



Victoria Theatre (Halifax - UK)



The Sauna Theatre (Netherlands)



Stadsgehoorzaal Theatre (Kampen, Netherlands)



Robert Blackwood Hall (Melbourne - Australia)



Westa Kawagoe (Japan)



Nanyang Auditorium (Singapore)



Brighton College (Bangkok - Thailand)



Naha Cultural Theatre (Japan)



Nong Nooch (Pattaya - Thailand)



Swayne Auditorium (Idaho - USA)



Festival Hall (Bled - Slovenia)



The Luna Cinema (UK)



## CASE STUDY

# Grand Theatre

Swansea, Wales

Total Sound Solutions is one of the UK's leading production services companies. Founded in 2003, the Swansea-based outfit covers a busy calendar of events with a comprehensive inventory of NEXO sound systems, in which GEO M6, M10 and M12 line arrays are available alongside P+, PS and ID Series point source speakers, equipping the company to handle jobs of any scale from community fairs through to multi-stage festivals. In the quieter months, the team at Total Sound turns its expertise to designing and installing fixed sound systems including, most recently, at the 1000-seat Swansea Grand Theatre. Total Sound Director Chris Hooke takes up the story.

"We've been working with the theatre as a client for many years, providing rental systems for one off events. We know the venue well, so when the subject arose of a new permanent system, we were happy to contribute our ideas for a generic configuration which became the basis of the tender document. Even though the system was 'unbranded' at that point, we already had NEXO P12s, L15 subs and ID24 under-balconies very much in mind from the outset."

Following a rigorous tender process in which submissions from several installation companies proposed systems from competing brands, it was Total Sound Solutions' design for a NEXO system that won out, delivering what Chris believes to be the perfect combination of performance and value for money.

"We demoed the P12s with 90° x 40° horns alongside L15 subs and invited the theatre's technical team to move around the auditorium and tell us where one speaker took over from another. Everyone agreed that coverage was totally even, meaning everyone gets the best seat in the house."

The full system comprises of 2 pairs of P12s mounted vertically either side of the stage at the height of the Stalls and Grand Circle, with an additional pair mounted high up on the front truss addressing the more open Upper Circle. Additional horizontally mounted P12s are deployed as delays some 5 meters in front of the stage at Stalls and Grand Circle height, with a pair of ID24s fulfilling a similar role at the top. Two pairs of L15 subs are located on the floor, while 4 x ID24s are used as stage front fills, and 3 x ID24s as fills under each balcony.

Amplification and processing come from a Dante network of 4 x NEXO NXAMP4X2MK2 powered controllers which integrates seamlessly with the theatre's existing Yamaha console and stage boxes. Every speaker and pair of subs has its own channel, allowing for individual processing and time alignment.

"Another big benefit of specifying NEXO products is that all the mounting hardware is independently TÜV certified, so we can be absolutely sure of our calculations and the venue can comply fully with health and safety requirements" says Chris. "We also get great support from NEXO, and we're able to extend these benefits to our customers. With NEXO, it's like being part of a family."



**When we came to tune the system, everyone was amazed at the power, coverage, and clarity of such a compact and visually unobtrusive system.**

Chris Hooke, Director of Total Sound



## CASE STUDY

# Naha Cultural Theatre

## Japan

The Naha Cultural Arts Theatre is a new cultural centre in the capital of Okinawa Prefecture, the tropical island group south of mainland Japan. Built to replace the aging Naha Civic Centre, the new venue is located in the heart of the vibrant tourist area and contains both large and small theatres seating around 1600 and 300 people respectively, both of which are equipped with NEXO sound systems.

GEO M10 line arrays with MSUB15 subs are flown left, central, and right above the stage in the large theatre, with additional clusters left and right and NEXO ID24s used as under balcony auxiliary speakers.

Small clusters of NEXO GEO M6 are hung L, C, R in the small theatre, with NEXO PS10s used as side speakers and ID24s again used to cover seating areas under balconies to ensure even audience coverage throughout the venue. Amplification and processing for both systems are delivered by 3 racks of NEXO NXAMPMK2 powered processors.

“We chose NEXO as this setup allowed us to build a full digital system with Dante encompassing everything from the Yamaha consoles to the power amps” says Hiroyuki Fukazawa, Manager (Sound Engineering) at the Culture Promotion Division, Civic Culture Department, Naha City.



**This is the key advantage of NEXO. The NEXO speaker system also allows us to suspend subwoofers alongside speakers, providing better sound and a better sense of localisation. Another reason was my own sense of familiarity with the NEXO speaker system, having used it at my previous place of employment. Personally, I just love how the speakers sound.**

Hiroyuki Fukazawa, Manager of Culture Promotion Division

Commenting on the performance of the system, Naha Cultural Arts Theatre Sound Engineer Ryoko Hirano says, “When I heard the main speaker in the large theatre, my first impression was ‘Wow, what a beautiful sound’. Not only do the speakers deliver a faithful rendition of any song, regardless of genre, I must admit I was taken aback by how such small speakers can produce such a powerful sound, almost as though the sounds are sent flying through the air.”





## CASE STUDY

# Tokyo Garden Theatre

Japan

Rapidly recognised as one of Japanese capital's leading theatre venues, the Tokyo Garden Theatre is located in the city's waterfront area within a major new development that also includes a retail mall, hotel, spa facility and housing complex. In a country where most theatres and halls operate on weekends only, the Tokyo Garden Theatre is designed to stage events every day of the week, where shows can load in out quickly, with easy access to a versatile, world-class, and permanently installed sound system.

"At my previous job, I was in charge of establishing Sendai PIT, a small live club in the city of Sendai" explains Katsushi Kamuki from the theatre's Operation Department.



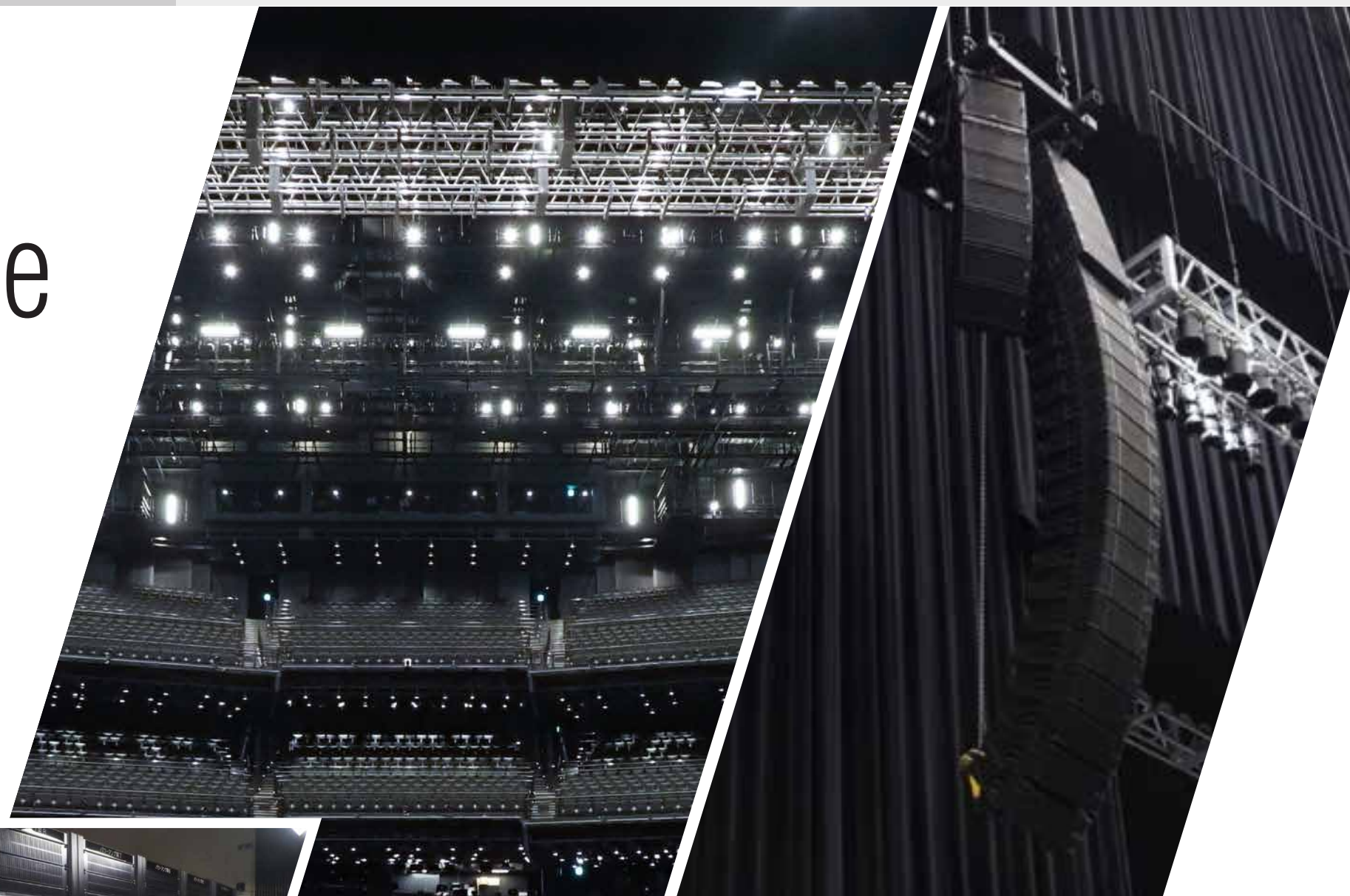
**We used NEXO speakers there, and I felt that their bold and powerful sound would be well-suited for the sound at Tokyo Garden Theatre. So, I took everyone involved in making the decision to Sendai PIT for a test listen before deciding to use NEXO.**

Katsushi Kamuki, Operations Department

Two hangs of NEXO STM M28 and B112 are rigged either side of the stage as the main speakers, with adjacent hangs of GEO M10 and MSUB15 subs as outfills. STM S118 subwoofers are located under the stage and PS15-R2s are used as frontfills. Small clusters of STM M28s are installed on the ceiling as delays, and NEXO's compact and powerful ID24s are used to extend coverage under balconies. Amplification and processing come from a bank of NEXO's 4-channel, networkable NXAMP4X4MK2 powered controllers, and Yamaha RIVAGE PM7 digital consoles are used for FOH and monitor mixing.

Commenting on behalf of the Theatre Operation Department at Sumitomo Fudosan Retail Management Co., General Manager Mr. Hiroyuki Honda says "On weekdays, we aim to be like a large live music club that you can just pop into when the mood strikes you and, on weekends, a hall that major artists can include in their arena tours. We wanted to cut down on set-up time by preparing permanent equipment that performers can use as much as possible. Performers use our permanent speakers even more than we expected. I believe that this percentage will increase even more in the future."

Despite a capacity of 8,000 seats, the venue is relatively intimate, with a maximum viewing distance of just 54 metres. "Performers have praised the closeness to audience seating, saying that it's easy to feel the energy from the audience" continues Mr Kamuki. "On the stage, it feels as if the audience surrounds you. One artist who came to see the hall before their performance said, 'This is amazing!' when they stood on stage."





## CASE STUDY

# Savoie Expo

Chambéry, France

In a positive sign for the French exhibition and conference industry, the Savoie Expo has completed a sizeable investment in NEXO sound reinforcement systems for its new auditorium, anticipating a return to large-scale live events in 2021.

Savoie Expo is located in Chambéry, in the Alpine heart of France's second tourist region. Strategically placed to take advantage of close links to Lyon and Geneva, as well as both winter sports and summer recreation, the venue organises a range of trade fairs and exhibitions and hosts major seminar and conference events.

Hall E was opened earlier this year, a substantial and versatile auditorium which can offer 2000 sq. metres of exhibition area, conference facilities for 1000 people, or accommodate 1200 people for a formal dinner. Equipped with retractable seating, the auditorium required an audio system that would adapt to its different configurations, looking to NEXO for system design input and to the Chambéry-based ELYPSE Group for installation and integration services.

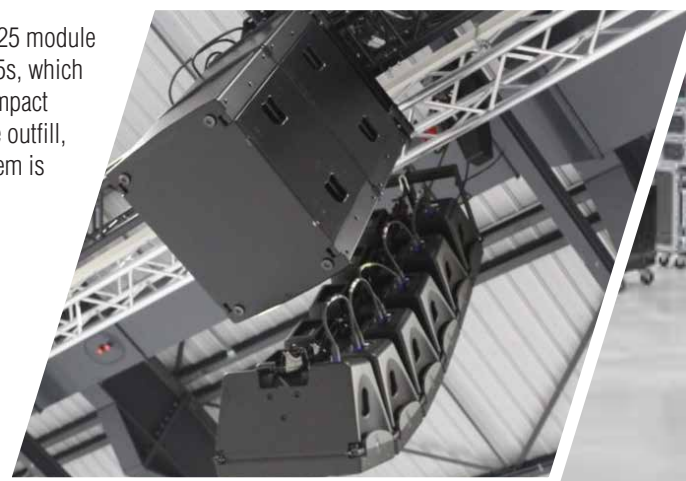
NEXO Engineering Support Specialist Christophe Girres visited Chambéry to fine-tune the finished system. "We are asking the system to work in three different ways, so the final tuning session went through these settings. In the first configuration, we had the stage immediately in front of the seating stands: in the second configuration, the stage is set up further away, but the audience are still seated in the stands. In the third configuration, there are no seating stands so the audience is standing around in a large free area. In order to achieve these three iterations, all elements of the PA system are mobile, with a special square truss to hold the sub clusters and suspend the point-source P8 outfill and centre fill cabinets. The GEO M10 line array is rigged on points in front of the truss, and these are mobile too."

Each array of NEXO's mid-size GEO M10 is set up with 5x M1012 plus a single M1025 module with 120 degree flange. The L/R clusters are completed by left/right pairs of MSUB15s, which fly behind the main arrays, presenting a very tidy aesthetic. A pair of NEXO's new compact point source P8 cabinets with 100 degrees x 100 degrees dispersion are used for the outfill, with a single P8 (110 x 60 degree dispersion) handles the centre fill. The whole system is powered by two NXAMP4x2Mk2 amplifiers.



**We listened to a lot of different tracks, including EDM at high levels, and the Savoieexpo engineers were surprised that the system was not at all aggressive, even at such high SPLs. The system is very clear in the mid-range, and the low end is perfectly suited to the applications, mainly conference and video, and small concerts.**

Christophe Girres, Engineering Support Specialist at NEXO





## CASE STUDY

# Mierscher Kulturhaus

## Luxembourg

Luxembourg's Mierscher Kulturhaus marks the recommencement of public entertainment with a complete refit of the sound reinforcement systems in its auditorium.

Situated in the centre of the Grand Duchy of Luxembourg, the Mierscher Kulturhaus is a 380-500 capacity theatre. It now has the first NEXO line array system in Luxembourg, designed and installed by Lemon Event Support, the rental house and system integrator which is now NEXO's preferred partner in the country.

The Kulturhaus contacted Paul Thyes at Lemon Event Support after taking the decision to upgrade their ageing point source PA. The theatre wanted to expand its technical capability, and was looking for a system that would allow it to host larger concerts as well as better serve its wide cultural brief of drama, dance, exhibitions, workshops and events.

As soon as coronavirus restrictions permitted, Thyes and his team set up a demo of their proposed solution of a NEXO GEO M Series mid-size line array inside the Kulturhaus auditorium. The venue has a retractable seating system, and a stage which can be lowered, transforming the space. This meant that no audio equipment could be groundstacked – all components had to be flown, including the subbass cabinets.

Winning the installation contract was a system of L/R arrays each of 5x modules of GEO M10, plus 2x MSUB18 subs per side, extremely low profile in the auditorium. NEXO's new P12 compact point source cabinets are used as front fills for the first rows of the audience.

Lemon Event Support's Chief Audio Technician Christophe Becker explains that he is putting two set-ups into the NEXO NXAMP4x4Mk2 controller/amplifiers, "which will work with the array EQ to make the upper boxes throw a bit further, and improve coverage when the seating stand is retracted and there are more people in the venue. The system has been networked with Dante, which meant we had less cabling to do, and of course gives the house engineer an excellent way of monitoring the system."



**This is in fact one of three installations we have executed in Luxembourg in the last year.**

Paul Thyes, Lemon Event Support

"Although we have been using NEXO cabinets for 11 years, since Lemon Event Support was founded, more recently we went looking for a brand that could deliver us a really modern line array design, supplied by companies with which we could build a long-term relationship. We were impressed by the rapport between manufacturer, distributor (Audio Technica Benelux) and ourselves as the customer, and it is clear NEXO has the products that will enable us to be competitive in the installation market."





## NEXO

Parc d'Activité  
du Pré de la Dame Jeanne  
B.P.5  
60128 Plailly  
FRANCE  
Tel: +33 (0)3 44 99 00 70  
Fax: +33 (0)3 44 99 00 30  
E-mail: [info@nexo.fr](mailto:info@nexo.fr)



©2021 NEXO S.A. All Rights Reserved.  
All NEXO trademarks and service marks are the property of NEXO S.A., its subsidiaries and affiliated companies

[nexo-sa.com](http://nexo-sa.com)

Thinking. Inside the box.

**NEXO** | A  
Yamaha  
Group  
Company