

Designed for a perfect performance.Lindner Concert Halls, Theatres and Auditoria





Building new solutions.

Lindner undertakes major projects worldwide in all areas of interior fit-out, insulation technology, industrial services and building facades. From pre-planning through to project completion Lindner is your partner of choice.

The Company's extensive manufacturing capability enables quality to be strictly maintained whilst allowing maximum flexibility to meet individual project requirements.

Environmental considerations are fundamental to all Lindner's business principles.

Through partnerships with clients Lindner turns concepts into reality.

Choosing Lindner you have:

Lindner Concepts:

Tailored solutions specifically geared to satisfy individual project requirements

Lindner Products:

Quality materials and systems to the very highest industry standards

Lindner Service:

Comprehensive project management services

Preparing the stage for the very best in music.

An artful selection: Lindner Concepts, Products and Service for Concert Halls, Theatres and Auditoria.

Your unrivalled benefits in working with Lindner:

- Many years of experience in managing large-scale projects
- Partnership with a strong company
- Perfectly trained staff in many expert fields
- Takeover of interface risks
- Cost advantages for architects and builders

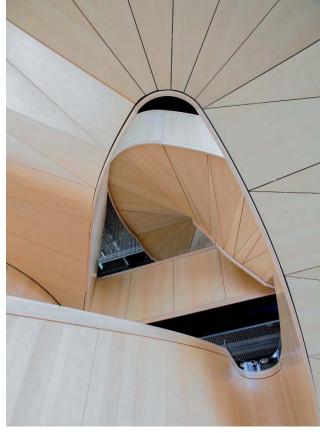
Lindner Concepts: the finest solutions in interior fit-out for concert halls.

Lindner Concepts, a treat for all the senses.

At the theatre or opera, visitors expect to enjoy premium entertainment. As outstanding as many artists are, all of them need to have confidence in the reliable performance of their surrounding to turn speech into aural pleasure in the auditorium. Acoustic intelligibility plays an important role in any concert hall, theatre and auditorium.

This is why we offer you our extensive experience, highly innovative engineering and the best quality and perfectionism when turning these specialised projects into reality.





Nytt konserthus i Stavanger Photo: © www.justdirk.net

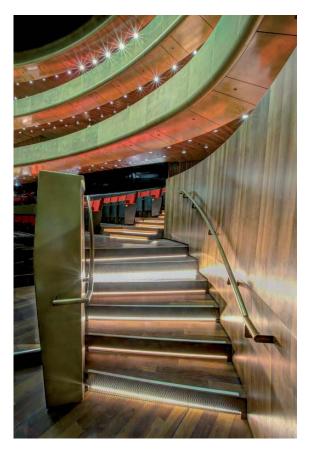
Interior fit-out of concert halls requires a complex set of expertise and special knowledge:

- Room acoustics (reflection, absorption, diffusion)
- Building acoustics (sound insulation, box-in-box, etc.)
- Acoustical characteristics of construction components (decoupling, vibration control, drum effect)
- Fire protection
- Optimal integration of technical equipment into interior fit-out
- Structural engineering

With tailored consultation and exact coordination we turn integrated concepts into perfect concert halls.



Danish Radio, Copenhagen Photo: © Weiles Foto



Musiktheater am Volksgarten, Linz Photos: © www.justdirk.net

A one stop shop: comprehensive Lindner support for your project.

Every project begins with a sketch. With this in hand, we can do all the legwork. Our engineers provide comprehensive advice on the technical possibilities of our products. In close collaboration with clients and architects, they develop concepts that integrate the three pillars of concert halls: acoustics, aesthetics and functionality. Possessing a wealth of experience from many international construction sites, our engineers synchronise all trades and will surely find the most economical solution for each project. Still and all, transparency is always our top priority. We make a realistic cost estimate at the outset of the project so that you can be sure that it will not exceed your budget.

Lindner Products: high quality solutions, manufactured exclusively for the world's greatest concert halls.

In our own modern production facilities we manufacture both tried-and-tested systems as well as entirely customised products to suit your very specific project. Specialist designers and engineers assess the feasibility of the concept and find the right solution for every challenge. Our long experience and extensive contacts in the construction industry enable us to provide you with all products and materials you need to realise your ideas at minimal cost. Processes which are kind to the environment are our greatest concern. That is why we only use tested and approved materials. Our dedicated Environmental Management policy guarantees, amongst other things, a reduction in emissions and energy consumption. Our continual quality inspection ensures maximum product reliability. Allow yourself to be convinced by the superior quality of our work by taking a look at a full-scale mockup on our premises.

FLOOR and more® arena – a product made for all levels of application.

The construction of tiered levels in concert halls is always a challenge. We consolidated our experiences from numerous international projects into the development of FLOOR and more® arena. Solid and at the same time quick to install, comparatively lightweight but yet carrying a high load capacity, largely prefabricated but likewise extremely flexible - this floor system is a match for every challenge. Calcium sulphate planks make all the difference; classified to fire performance A1 to EN 13501-1, "non-combustible", preventing any drum effect when walking and acoustically effective, FLOOR and more® arena adjusts itself to every type of installation, whether the subfloor is level, sloping or stepped.





Nytt konserthus i Stavanger Photo: © www.justdirk.net

The free-form acoustic cladding not only visualises even the most complex concert hall design. It also has a major influence on the room acoustics. Depending on the requirements, it can absorb, diffuse and reflect sound – a fact which makes it perfect for use as a ceiling or wall cladding.

Additional measures like integrated movable blades may even increase this effect. We also manufacture 100% customised, movable ceiling canopies, allowing you to adjust the resonance to suit the band or even a particular piece of music.

NORIT-Industrial Board – gets your concert hall into shape.

Our exclusive NORIT-Industrial Board makes every design realisable. These boards may be veneered, laminated, coated, perforated, colored, cut and 3D-shaped - to cut a long story short: In terms of form, color and texture nothing confines your imagination. The highly resilient, homogeneous boards are made from gypsum and cellulose fibers and are therefore totally environmentally safe. Being classified "non-combustible" to EN 13501-1 Class A1, they ensure that your building complies with all relevant fire safety regulations. The boards are available in densities ranging from 1,100-1,500 kg/m³.

Additional products from our own production:

- Doors (metal frame, fire, wood doors)
- Raised and hollow floor systems
- Underfloor heating, dry screeds
- Metal ceilings, fire protection ceilings
- Integrated lights, light channels, luminous ceilings
- Partition systems, glass partitions, wall cladding
- Facades (custom facades)
- Heating and Cooling Technologies
- Interior Fit-out and Furnishings
- Profiles for all standard drywall systems

Lindner Service: your project accompanied by our best engineers — every step of the way.

We manage projects from the very beginning: By means of shop and installation drawings, you can track the development of your idea into a building. Extensive tests in our own laboratories according to international standards make sure that our products meet all necessary requirements. It goes without saying that we supply you with all relevant certificates.

If you opt for Lindner products, they are automatically accompanied by our extensive services. We manage production plants and subsidiary companies in more than 20 countries – and are therefore always on the spot when you need us.

But what we do is more than just delivery and installation. Our project managers will see your project through to completion. Experienced engineers, designers and sales people bring quality, costs and schedules in line.



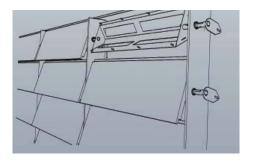


Kilden Performing Arts Centre, Kristiansand, Norway Photos: ©Tuomas Uusheimo

It all begins with Research & Development.



Architectural sketches for a rotatable acoustic wall cladding



Lindner construction suggestion



3D visualisation



Completed project

Using CAD drawings and illustrations, we develop constructional solutions right from the word go. Our service includes all phases of your project – from design through to finalisation and maintenance.

In order to execute your project as smoothly and as quickly as possible, we provide you with an individual service that is optimally tailored to your requirements. Highly qualified design engineers develop the right solutions for you whilst working in close collaboration with architects and specialist planners. Only in this way we can use all our competencies and achieve the best result for your project.

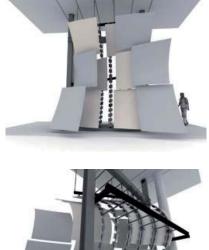
All solutions from one source:

- Consultation
- Planning and development
- Production
- Project management
- Delivery, assembly and maintenance

Practice what you preach – from theory through to implementation.



Heydar Aliyev Cultural Center, Baku Photo: © Khayrulin Farid



3D visualisation



Prototype

We also shine when it comes to prototyping.

In order to implement your project succesfully, we firstly create a prototype, i.e. a construction site-related, true to original model. In doing so, we can spot any complications and difficulties early on and work them out in the next step, for our primary concern is to devise optimised, tailored solutions.

We present you with the prototype either at your offices or at our headquarters in Arnstorf. At this time we can still take into consideration any changes you may wish to make and incorporate them into the series production. Finally we brief the technicians on site about the new product, take over additional construction site checks and, if you wish, will look after your project throughout the entire construction period.

Our Reserach & Development Department takes over the following tasks during prototyping:

- Development of new products
- Creation of manufacturing and assembly documents
- Sampling, preparation and briefing technicians
- Checking the static
- Solving construction site problems
- Manufacture support

Lindner Testing Laboratories — only the best get through.

Thorough checking is half the battle won. That's why we have our own certified Lindner Testing Laboratories equipped with the most innovative simulation and measuring technology. Thanks to these facilities we are in the position of testing our developments and products on-site, at short notice and under various conditions; we can discover weak spots and quickly implement solutions for them. Even when it comes to special solutions, we can also supply you with ensured values for your construction project before implementation.





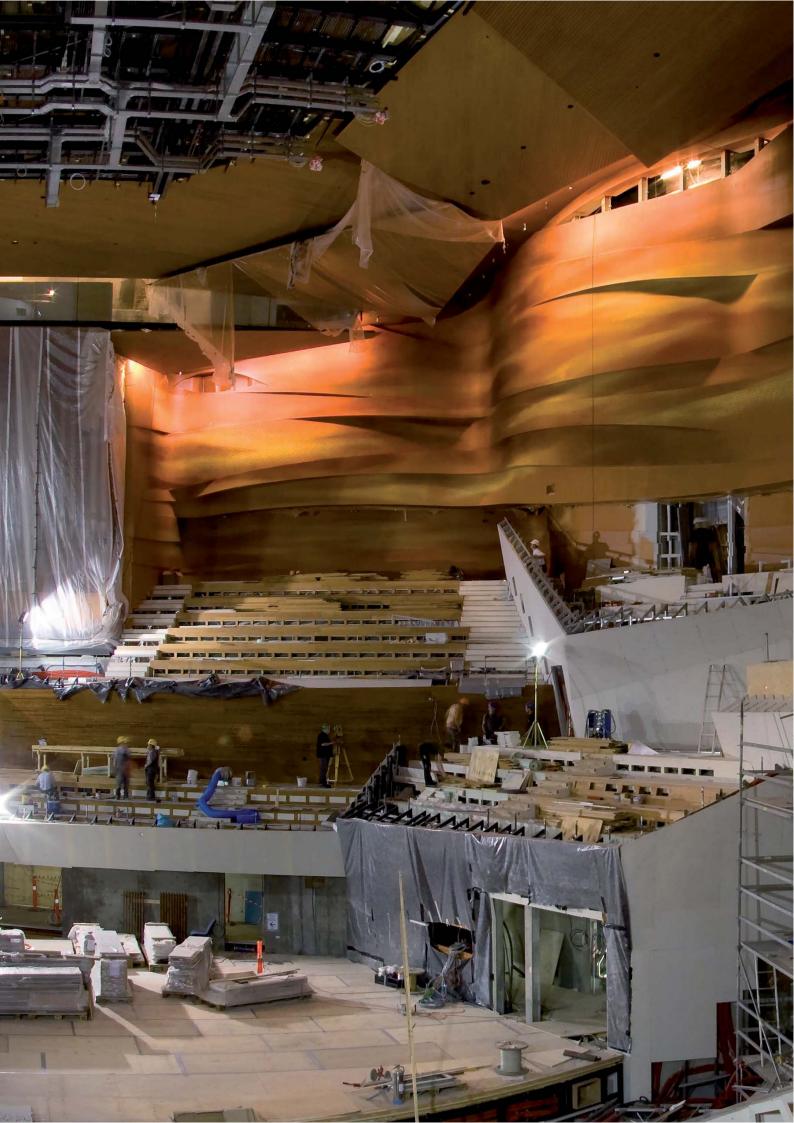
In our own certified echo chamber and wall test stand we test absorption properties and sound insulation.

Lindner makes it big ... or small. Anything is possible.

Lindner Testing Laboratories offer:

- Sound laboratory
- Static test stand
- Facade test stand
- Long-term function test stand for doors
- Climate cabins for heated and chilled ceilings



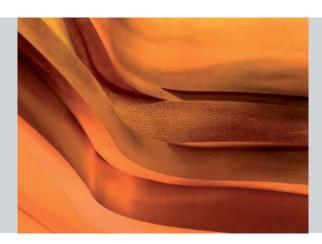


Every inch a masterpiece.

Products from our own production.

Wall cladding

The prefabricated wall elements have a natural frequency of 10 Hz or less and an extremely high mass per unit area, providing extra acoustic protection. Every single piece which our experienced engineers elaborately designed is absolutely unique. The waved walls consist of painted gypsum fibre panels (rated A2-s1, d0, tested to EN 13501-1) and surround the whole concert hall.



Balcony fronts

The balcony fronts have a customised weight of 100 kg/m² to suit the acoustic requirements of the hall. They are made of milled multilayer plywood panels with a micro-shaped surface that diffuses sound. The balconies are not only acoustic elements, but also part of the architect's design concept. By applying and combining different materials like metal, wood and the NORIT-Industrial Board, we are able to create even the most complex forms.



Doors

The fire doors ensure visitors get to safety in time. We installed 120 of these customised constructions made of beech wood. They meet fire protection class BD60 according to Dansk standards and offer a clear opening of 3 meters.





Danish Radio, Copenhagen Photos: © Kontraframe.dk

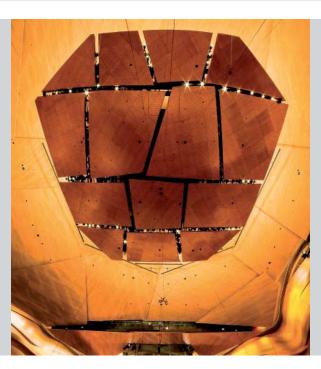


Every inch a masterpiece.

Products from our own production.

Main Ceiling

The main ceiling consists of fire-resistant, sound-diffusing and overlapping "scales" that weigh 100 kg/m². Each of these free-hanging scales is acoustically decoupled and different in size and shape. They are made of multilayer plywood panels which are rated B-s1, d0 according to EN 13501-1.



Reflector

With a total weight of 75 tons and covering an area of 250 m² the moveable ceiling scale over the stage ensures maximum sound performance. The position of the ceiling can be adjusted depending on the number of people attending the concert. All technical accessories, such as lighting, loudspeakers and microphones are integrated. Lindner solved the special challenge by combining acoustics with irregular wood veneer surfaces. The substrate of the moveable ceiling is made of NORIT-Industrial Boards which are classified A1 according to EN 13501-1.



Floors and Stairs

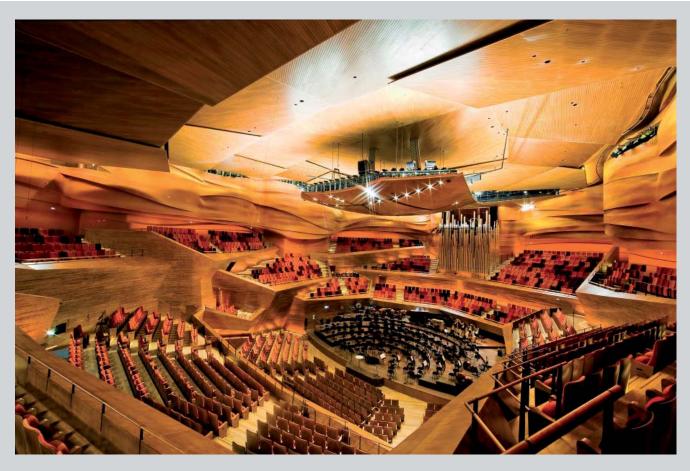
The FLOOR and more® arena floor on the grandstands and balcony terraces reliably prevents any drum effect. We specially developed this flexible system for the installation on level, sloping or stepped subsurfaces.

All stairs are 100% customised. Illuminated steps help concert-goers find their way. The handrail is made of a solid steel core and is embedded in precious raw timber.

"Architecture is like music; it is made to move and delight us."

Jean Nouvel

Together with architect Jean Nouvel and acoustic designer Nagata Acoustics, Lindner fitted out the concert halls of the radio broadcasting company as well as the smaller studios, foyer and the 'Queens' lounge'. Simple materials such as plywood or exposed concrete turn the foyer into an architectural highlight of its own. Above all, it is the wooden surfaces of the ceiling, the walls and the balcony fronts that greatly influence the appearance of the main concert hall. Lindner especially developed its FLOOR and more® arena system for the use in concert halls, making it the perfect solution for level, sloping or stepped subsurfaces.



Danish Radio Concert Hall, Copenhagen, Denmark

Client: DR / Danish Broadcast Cooperation, Copenhagen

Architect: Ateliers Jean Nouvel, Paris

Execution period: 2004 - 2009 Contract value: 48.0 Mio. EUR

Photo: © Kontraframe.dk



Queenslounge with perforated ceiling cladding made of leather



Exposed concrete wall with fire resistant wood door



Metal ceiling panels in the foyer



Metal ceiling elements in the foyer



Foyer with wood and metal wall cladding

Lindner was responsible for the entire interior fit-out, including the concert hall. It impresses with noble restraint in shades of black and wooden surfaces. The wall cladding, ceiling and balcony fronts are made of various custom-built and high gloss lacquered MDF boards as well as real wood veneered NORIT-Industrial Boards. The heat-strengthened satin glass modules of the movable acoustic ceiling reflectors are 2D formed and reflective. By applying these various finishes and fulfilling the most complex acoustic requirements, Lindner definitely left its mark on this project, making Kilden Performing Arts Center unique in the world.

Kilden Performing Arts Centre, Kristiansand, Norway

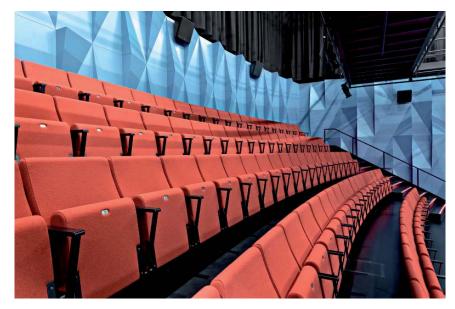
Client: KildenTKS IKS Bygg, Kristiansand

Architect: ALA Architects, Helsinki and SMS Arkitekter, Kristiansand

Execution period: 2009 - 2011 Contract value: 5.2 Mio. EUR



Photo: ©Tuomas Uusheimo





Multi-purpose hall with blue laugered MDF wall cladding



Bended ceiling reflector with heat strengthened frosted glass



Concert hall for orchestral performance



Vertically milled wall cladding with ash surface in concert hall



Concert hall with vertically milled ash surfaces

Our interior design package for the concert hall in Stavanger included all surfaces in the concert hall, the multi-purpose hall and foyer. Most of them are acoustically effective and tailored to the building's exigencies. The concert hall is dominated by illuminated, suspended acoustic reflectors that resemble bubbles and can be adjusted to suit different needs. However, the true centerpiece is the 170-tonne moveable ceiling that consists of NORIT-Industrial Boards. Balcony fronts and a vertical wall cladding in oiled Canadian maple wood highlight the sophisticated design of the major hall.

Nytt konserthus i Stavanger, Stavanger, Norway

Client: NYTT KONSERTHUS I STAVANGER IKS, Stavanger

Architect: RATIO arkitekter, Oslo Execution period: 2010 - 2012 Contract value: 8.1 Mio. EUR



Photo: © www.justdirk.net



Multi-purpose hall with expanded metal balcony fronts

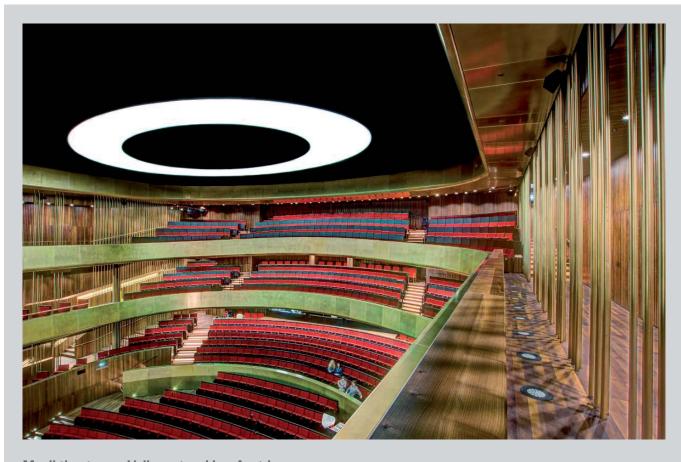


Dark blue laquered metal wall cladding in the multi-purpose hall



Foyer with a free hanging mezzanine floor

Lindner furnished the auditorium and the main rehearsal room with ceilings, floors, wall cladding and balcony fronts. FLOOR and more® arena, installed at the tiered levels in the theatre, prevents any drum effect and makes for impeccable acoustics. The ceilings consist of NORIT-Industrial Boards, some of them with real wood veneer, which stand out due to their complex 3D forms. Balcony fronts and a 3D shaped, reflective wall cladding made of NORIT-Industrial Boards – which are coated in "beaten" gold – add a touch of luxury. The warm colours of the ceiling, walls and balcony surfaces create a comfortable environment for the concert-goers.



Musiktheater am Volksgarten, Linz, Austria

Client: Musiktheater Linz GmbH, Linz

Architect: Terry Pawson Architects, London

dworschak + mühlbachler architekten, Linz

ArchitekturConsult ZT GmbH, Graz

Execution period: 2011 - 2013 Contract value: 5.3 Mio. EUR

Photo: © www.justdirk.net



Rehearsal room with acoustsically effective wall and ceiling panels

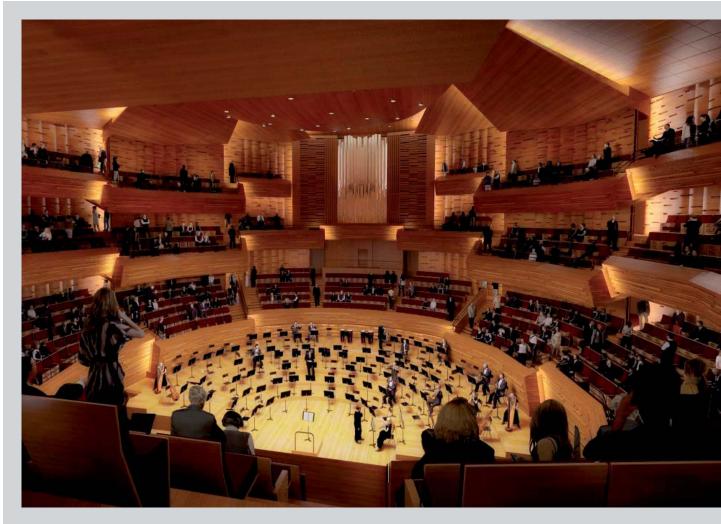


Spectator stands with FLOOR and more $^{\tiny{\texttt{0}}}$ arena floor system



Huge orchestral hall with relief wall and ceiling cladding

Lindner's scope of work for this prestigious project included the complete interior fit-out of the concert hall, namely the balcony fronts, the back wall cladding and the backstage cladding. Wood veneered NORIT-Industrial Boards, made of gypsum fibre and supported by a steel substructure, form the balcony fronts that reflect or absorb sound according to requirements. The wood veneered, sound-diffusing back wall cladding is another important pillar of the room's intricate sound concept and rounded cladding in the backstage area gives it a finishing touch.



Radio France, Paris, France

Client: Radio France, Paris

Architect: AS.Architecture-Studio, Paris

Execution period: 2012 - 2014 Contract value: 3.1 Mio. EUR

Photo: © AS.Architecture-Studio

"In the word 'philharmonic', it's easy to discern a love of harmony."

Jean Nouvel

World-renowned French architect Jean Nouvel planned this majestic concert house of which Lindner fitted out the complete interior including the great concert hall. The internal ceiling skin is made of pre-bended, 3D-shaped NORIT-Industrial Boards that diffuse sound due to the excellent acoustic properties of the perforated panels. In the grandstands and terraces, Lindner installed their prefabricated FLOOR and more® arena floor which reliably separates the sound. Another exclusive feature is the rounded spray-on plaster on the balcony soffits and walls that not only makes for outstanding acoustics in the room, but also creates a seemingly floating, harmonic space.

Philharmonie de Paris, Paris, France

Client: Paris City, Paris

Architect: Ateliers Jean Nouvel, Paris

Associated Architect Concert Hall: Métra + Associés, Paris

Execution period: 2012 - 2015 Contract value: 28.1 Mio. EUR



Photo: © Artefactory

We can do it all for you.

Lindner Concepts:

- Airports and Railways
- Clean Rooms and Operating Theatres
- Cruise Liner and Ship Fit-out
- General Contracting
- Hotels and Resorts
- Insulation and Industrial Service
- Interior Fit-out and Furnishings
- Special-Purpose Constructions and Stadiums
- Studios and Concert Halls
- System Buildings

Lindner Products:

- Ceiling Systems
- Doors
- Dry Lining Systems
- Facades
- Floor Systems
- Heating and Cooling Technologies
- Lights and Lighting Systems
- Partition Systems
- Roofing Systems
- Steel & Glass

Lindner Service:

- Clearance of Harmful Substances
- Construction Management and Project Development
- Deconstruction and Interior Demolition
- General Planning
- Global Product Supplies
- Green Building
- Industrial Scaffolding
- Installation and Building Services
- Research and Development

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