

Acoustic design challenge?

# We're all ears.

*Multi-material solutions  
for multi-purpose spaces*





*With proper acoustic treatment we can reduce perceived noise by 50%.\**

*Our experience from more than 500 projects.*

WHEREVER THERE IS AN ACOUSTIC DESIGN CHALLENGE,

# WE WANT TO HEAR ALL ABOUT IT.

Regardless of the setting – be it a cultural venue, hotel, or office – good acoustic design is needed to make each space feel welcoming and supportive of its purpose.

Our scientific and activity-based approach ensures solutions that enhance both the atmosphere and function while meeting users' needs and wellbeing – from first impressions to dining areas and meeting spaces.

Guided by your design vision, **we create acoustic solutions without compromise.**

\*a 10dB reduction is perceived as a halving of the sound level



On the following pages, you can experience the benefits of acoustic design in these various rooms — simply scan the QR codes.



### ***Did you know?***

*The higher the walls, the greater their contribution to the sound experience of the room, including reverberation and overall sound levels.*

#### CASE STUDY: SHAPING A SOUND EXPERIENCE

# IN A MULTI-PURPOSE SPACE

As more buildings are being designed for multiple purposes, achieving the right acoustics can be a challenge.

By combining various materials and solutions, you can bring your architectural visions to life while meeting acoustic needs.

With our wide product range and acoustic guidance, we support you in every step of the building process.

#### **Spaces characterised by**

- Open layouts
- High ceilings and walls
- Hard and reflecting surfaces
- Multiple activities
- High level of people coming and going

#### **Common acoustic challenges**

- Speech clarity at short distance
- Sound propagation
- Reverberation
- Background noise



MEETING ROOM



## Listen

to a simulation  
of this room  
before and after  
acoustic treatment



*Proper acoustic  
treatment **can triple**  
speech decay,  
improving privacy.*

## SHAPING INITIAL IMPRESSIONS WELCOMING AREA

In a welcoming area, the first point of contact plays a key role in shaping the initial impressions. With many people in movement and several activities ongoing, sound levels rise and impact the overall experience. This is especially challenging for people with hearing problems who are sensitive to noise, and non-native speakers.

**To improve the acoustic experience  
in this space, we need to:**

- Reduce sound levels and background noise
- Ensure speech privacy and speech clarity at short distances





## WELCOMING AREA **START WITH THE BIG SURFACES**

An effective way to reduce overall sound levels is to treat the ceiling with a full covering sound-absorbing solution.



### **Ecophon Fade™ ONE Smooth**

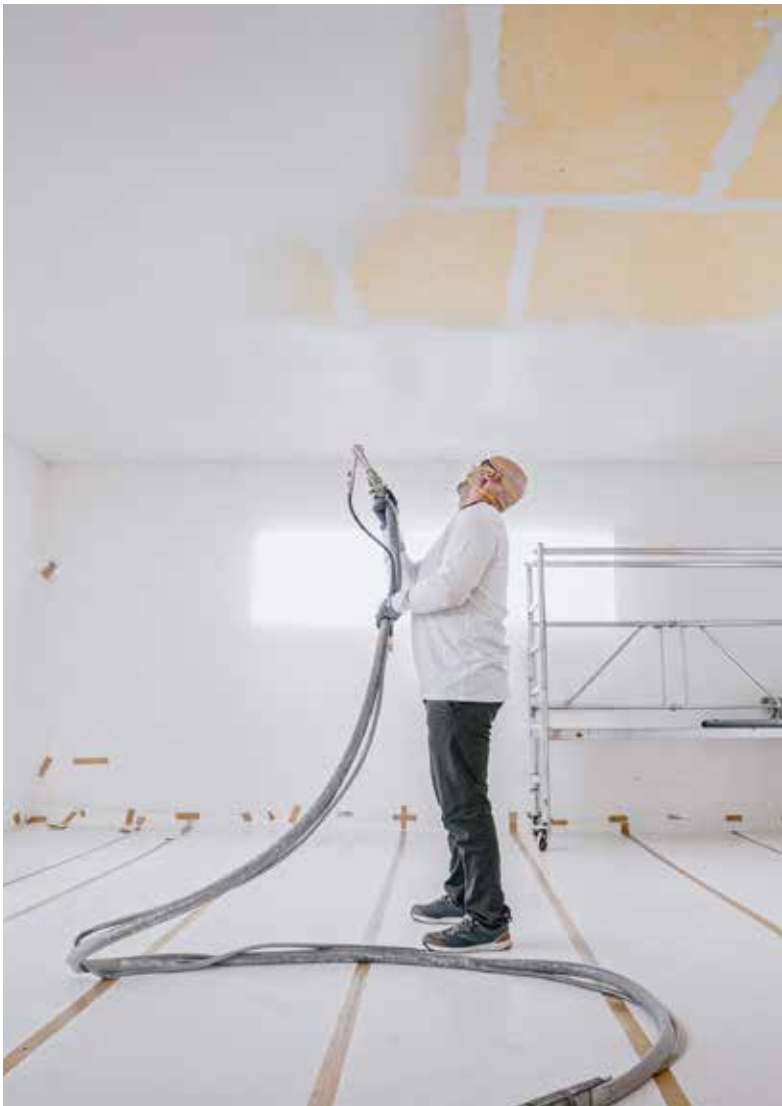
A seamless acoustic plaster that provides a flexible solution, easily adaptable to the room's volume and shape. It reduces background noise and sound strength by creating a solid sound-absorbing base.



# Ecophon Fade™ ONE Smooth

## KEY BENEFITS

- Up to absorption Class A
- One plaster for all layers
- Spray-applied
- Custom colours
- Seamless surface
- Highly durable and stable to UV
- Sandable and spot-repairable





*The higher and more numerous the baffles are, the more absorption they will provide in the room, reducing background noise and reverberance.*



## WELCOMING AREA / RECEPTION

# HIGH LEVEL OF DESIGN FREEDOM

Free-hanging baffles that cover the ceiling can significantly reduce background noise and enhance speech attenuation. Additionally, they create a light, organic effect while maintaining the high ceiling.

### Ecophon Solo™ Baffle Wave

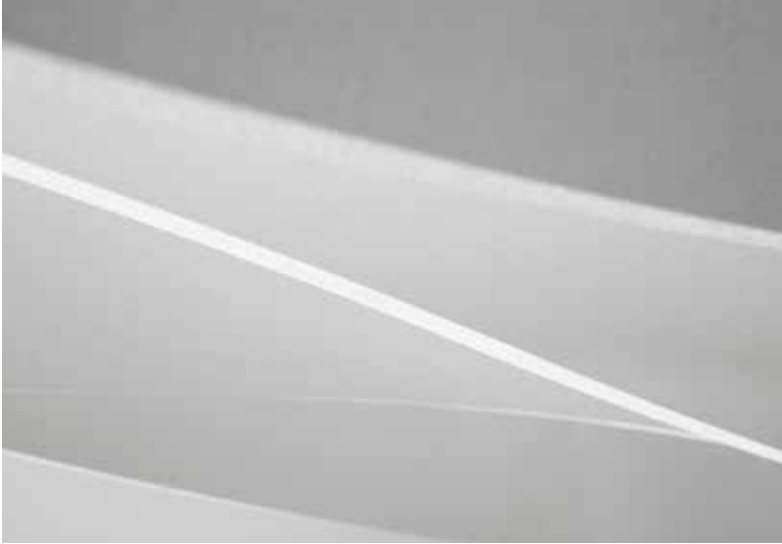
A flexible solution and design opportunity combined. Adjust the height of the baffles and the distance between rows to create the desired appearance and acoustic experience. Aim for a coverage ratio of at least 80%.



# Ecophon Solo™ Baffle

## KEY BENEFITS

- Superior acoustic qualities
- Straight, painted edges
- Available in various shapes
- Standard sizes: from 1200x200 mm to 1800x600 mm
- Adds a different perspective and distinct lines
- Can be combined with heating and cooling ceiling
- Main acoustic solution or additional sound absorption







16

## WELCOMING AREA / LOUNGE DEDICATED SPACES FOR CONVERSATION

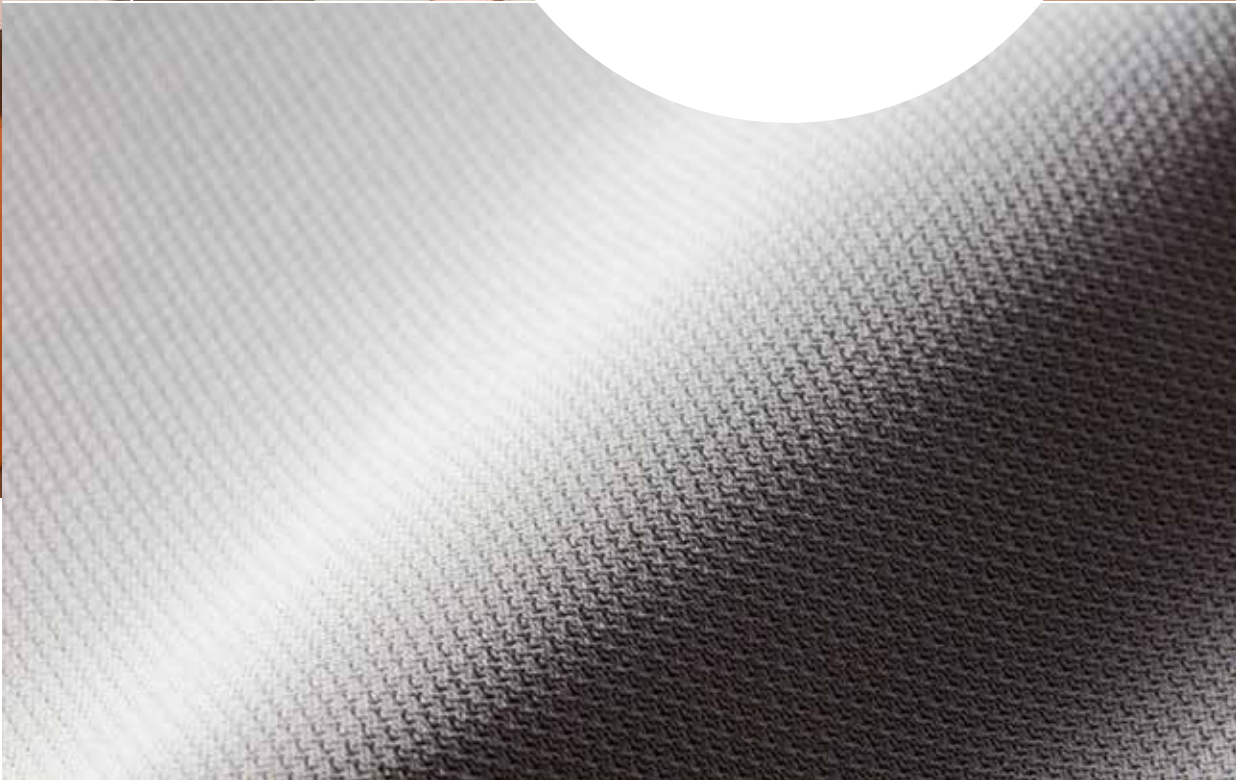
Lower ceiling heights in limited zones can be an effective design technique to help control sound. However, if left untreated, there is still a risk of sound reflections.

Wherever people talk close to the walls, it's crucial to stop sound from bouncing within the space. By treating the surrounding walls and ceiling, you prevent sound reflections, ensure speech comfort and improve privacy while also limiting the sound from spreading.



17

*Exposure to 50 dB of irrelevant speech noise increases physiological stress levels and reduces accuracy.\**



### Ecophon Clipso™ So Acoustic

A fully flexible, technical knitted fabric for a seamless, integrated solution. Adapts to any shape to generate a coherent experience.

\* Source: J. Radun, H.Maula, I-K Tervahartiala, V. Rajala, S. Schlittmeier, V. Hongisto "The effects of irrelevant speech on physiological stress, cognitive performance, and subjective experience: Focus on heart rate variability", International Journal of Psychophysiology, 2024.





## WELCOMING AREA / RECEPTION

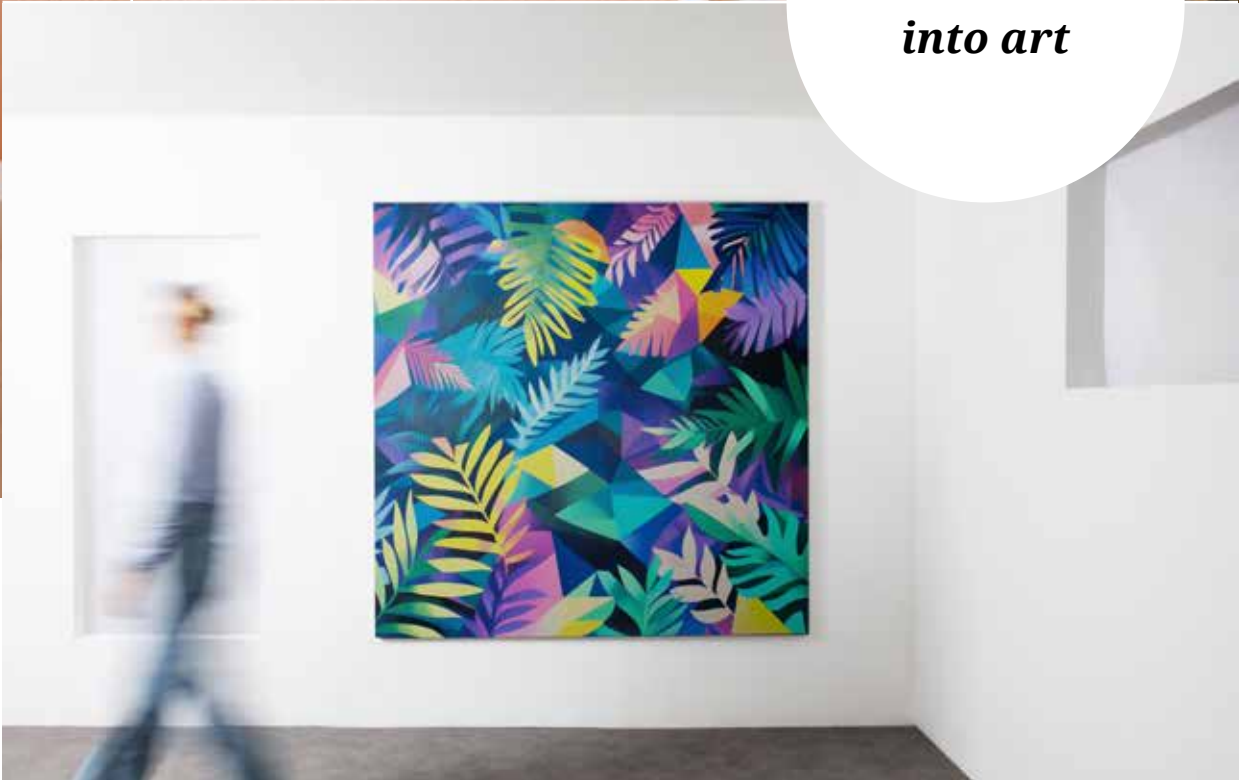
# ENHANCING SPACES THROUGH ACOUSTIC WALL DESIGN

In large volume spaces with higher ceilings, acoustic treatment of the walls is essential. This not only enhances the acoustic experience but also provides opportunities to elevate the overall design.

Covering the walls of the reception area with stretched acoustic fabric will enhance speech comfort and clarity. It also improves privacy by keeping conversations closer to their source.

### Ecophon Clipso™ So Acoustic

A wall-mounted acoustic fabric solution. Available with print so you can tailor the design to suit your preferences.

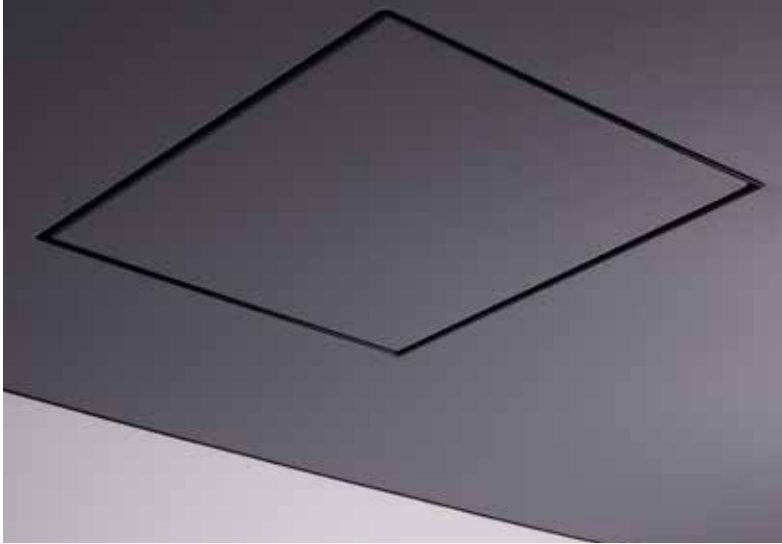




# Ecophon Clipso™

## KEY BENEFITS

- Premium acoustic absorber up to class A
- Coated to provide a resistant surface
- Seamless full covering of ceiling and wall
- Free-hanging or wall-mounted absorbers
- 24 standard colours, or any colour on demand
- Customised prints
- Widths up to 5.1 m
- Quick and clean installation
- Easy integration of technical components







## WELCOMING AREA **DESIGNING FOR COMMUNICATION**

Free-hanging panels, suspended near the source, create acoustic zones that enhance speech comfort and prevent sound from spreading, thereby ensuring greater privacy.



### **Ecophon Solo™ Freedom**

Offers great design freedom as it is available in any shape. Let panels serve as striking focal points or as subtle, discreet elements.



# Ecophon Solo™

## KEY BENEFITS

- Superior sound absorber
- 22 standard colours or any colour on demand
- Custom shapes and large formats
- Industry-low CO<sub>2</sub> emissions
- Easy installation
- Can be combined with heating and cooling ceiling





## Listen

to a simulation  
of this room  
before and after  
acoustic treatment



**81%**  
*of people avoid dining  
places that are too noisy.*

Source: Survey on noise in restaurants on a  
representative sample, France, 2022

## A PLACE TO ENCOURAGE CONNECTIONS **FOOD COURT**

A café or food court adds an inviting and social ambience. Multiple conversations, music and spacious, open architecture with hard, reflective surfaces generate high sound levels. This can force people to raise their voices to be heard, further increasing the overall noise. This phenomenon is known as the Lombard effect.

### To improve the acoustic experience in this space, we need to:

- Reduce background noise from kitchen activity and technical equipment
- Manage high sound levels to avoid the Lombard effect
- Ensure speech clarity

### Ecophon Solo™ Baffle Wave

Using baffles to create distinct zones is an alternative to regulating background noise. Adjust coverage ratio and height for the desired acoustic experience.





*Restaurant revenue increased after refurbishment by 11% y-t-y, along with an improved online rating.\**

## FOOD COURT PLAY WITH CEILING HEIGHT

Working with varying ceiling heights in a dining area will enhance acoustic design. Absorbers placed closer to the sound source help to regulate background noise and control speech propagation.



### Ecophon Clipso™ So Acoustic

With an acoustic fabric solution, you can manage sound reflections from the ceiling while keeping a sleek look.

\* Source: Good acoustics as an extra source of income in restaurants – A case study, J.Negreira, N.Oseland, INCE Conference Proceedings, 2019



Listen

to a simulation  
of this room  
before and after  
acoustic treatment



*A good acoustic  
environment can improve  
task motivation by 66%.*

*Source: Evans, Johnson, Cornell University,  
"Stress and open office noise", Journal of  
Applied Psychology, 2000, vol. 85,  
no. 5, 779-783.*

# LET EVERYONE ENGAGE MEETING ROOM

Meeting rooms should be able to accommodate various meeting styles, from presentations to group discussions, including remote participants. The aim is for everyone – regardless of age, language, hearing impairment, or neurodiversity – to engage in the conversation and feel fully included.

**To improve the acoustic experience in this space, we need to:**

- Lower reverberation time
- Ensure speech intelligibility and clarity
- Balance between speech and background noise
- Prevent conversations from leaking outside

## Ecophon Clipso™ So Acoustic

It is optimal to treat two adjacent walls with acoustic fabric to reduce flutter echo and enhance speech clarity. For patch application, always position the centre of the panels at eye level and ensure adequate planning for rooms intended for standing meetings.

## Ecophon Clipso™ So Aero

An acoustic island creates a focal point and adds an extra layer of absorption to enhance listening comfort. Available in both standard and custom shapes.



Listen

to a simulation  
of this room  
before and after  
acoustic treatment



32



MEETING ROOM

# ADDING THE FEELING OF WOOD

Wood wool panels combine timeless design with complete acoustic solutions, incorporating Ecophon absorbers and Connect™ grids for effective sound absorption. The natural texture of shredded wood creates a warm atmosphere in the space.



Ecophon Saga™ wood wool

By combining different materials, you can create unique solutions while enhancing both the acoustics and the aesthetics of the room.

33



# Ecophon Saga™

## KEY BENEFITS

- Sound absorption up to Class A
- Adds a warm and natural aesthetic
- Contributes to a comfortable indoor climate
- Locally sourced Swedish wood
- 13 colours – or any NCS/RAL colour
- Two installation options: an exposed grid system or edge-to-edge bonding
- Impact resistance (1A, 2A)





Listen

to a simulation  
of this room  
before and after  
acoustic treatment



*Studies show that colour  
contributes to a happier,  
healthier and more  
engaging environment.*

*Source: Big demands and high expectations,  
The Deloitte Millennial Survey, Deloitte,  
Page 2, 2014*

## FACILITATING TEAMWORK COLLABORATION AREA

Collaboration zones present several acoustic challenges due to their dynamic nature. The main challenge is to ensure that discussions flow seamlessly. Participants should hear one another clearly without raising their voices, thus escalating the noise. This often requires an acoustic treatment in several steps.

**To improve the acoustic experience in this space, we need to:**

- Ensure speech clarity at short distances
- Limit overall sound levels to allow for productive discussions
- Prevent speech propagation

### Ecophon Saga™ wood wool

Acoustic wood wool panels provide effective sound absorption and a natural vibe. Reduced noise levels will facilitate communication and minimise disturbance for others.

### Ecophon Clipso™ So Acoustic

Acoustic treatment on the walls is essential to prevent sound reflections, improve speech clarity, and minimise sound transmission to other areas of the room.

### Ecophon Solo™ Freedom

In addition to the ceiling tiles, an acoustic island suspended close to the noise source will further reduce sound levels and improve speech comfort in the zone.



# FOR SUPPORT ALL THE WAY

With our tools and services – developed to make acoustics more tangible – you can explore environments and measure the effects, from the conceptual stages to installation.

## PROJECT START



### Ecophon Immersive Acoustic Experience

The only way to truly understand the value of better acoustics is to experience them directly. We have developed virtual reality audio tools that demonstrate the critical difference between good and bad acoustics through several virtual rooms and scenarios.

## DESIGN PHASE



### Ecophon Acoustic Calculator

Give an estimation of how the product will affect the room acoustics before it's been built. With this tool you will be able to estimate acoustic values early in the design stage.

### Open-Plan Office Calculator

This tool is designed to help you create more productive and comfortable open-plan offices. Based on ISO 22955 standards, it estimates optimal spacing between activities to enhance acoustic comfort.

## INSTALLATION



### Ecophon laser projection service

Experience faster installations with this cutting-edge solution designed to streamline installation processes. Our system uses advanced laser technology to transform digital plans into precise, real-time visual tools that project directly onto construction surfaces.

