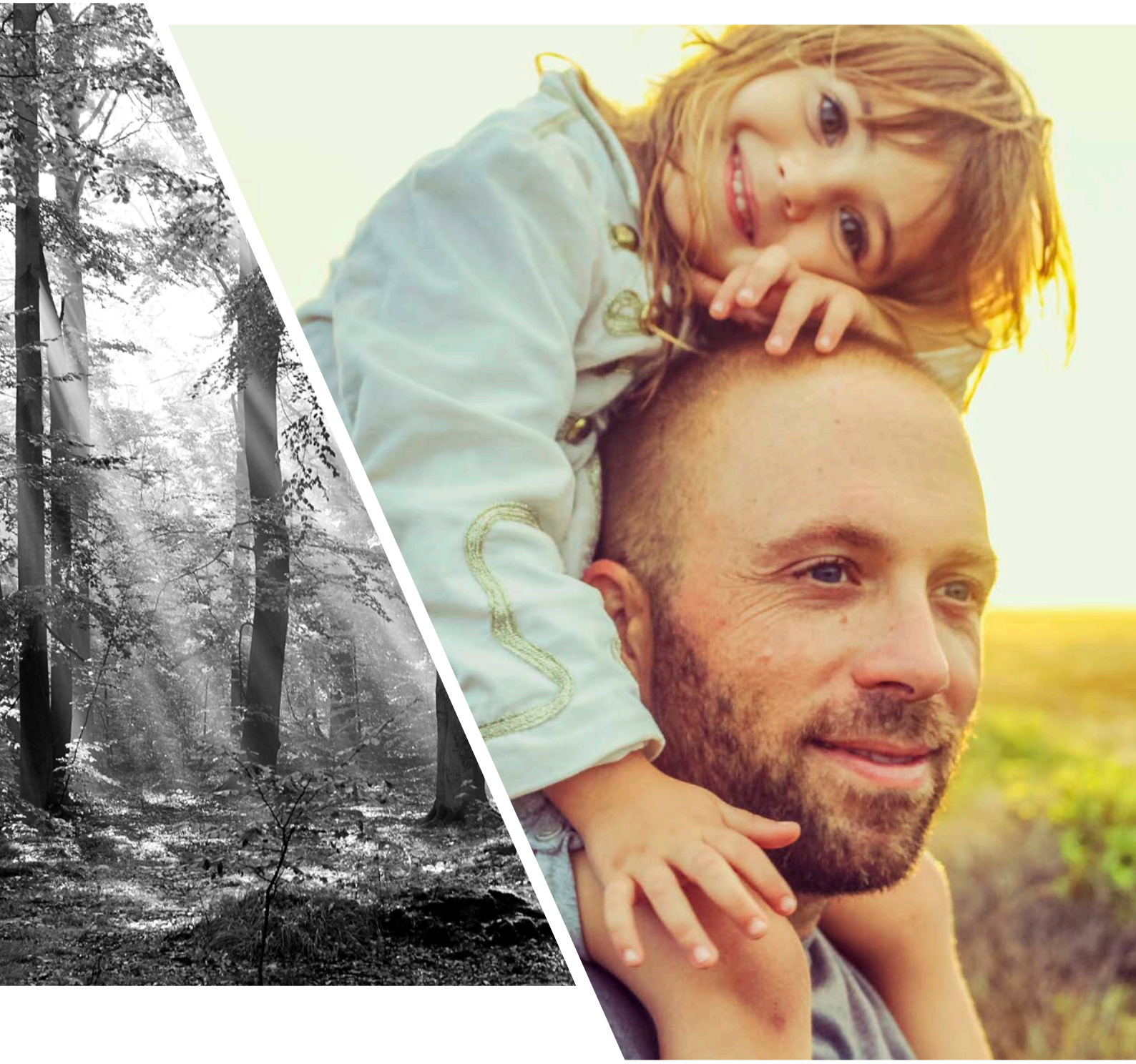
Our ever-growing
sound effect on people



Ecophon®
SAINT-GOBAIN
A SOUND EFFECT ON PEOPLE

Sustainability
through swedish innovation

The seed that has grown into the Ecophon we know today, was once planted in the fertile soil in Hyllinge, Sweden. Nurtured by values like innovation, quality and design, and not least sustainability, our company has a unique business approach.

We bring to the world unique solutions designed to have a sound effect on people. With them people can learn more when in school, thrive and develop at work, and recover when in care. Empowering people to live their lives at the fullest, by providing natural indoor acoustics, is sustainability at its core from our point of view.

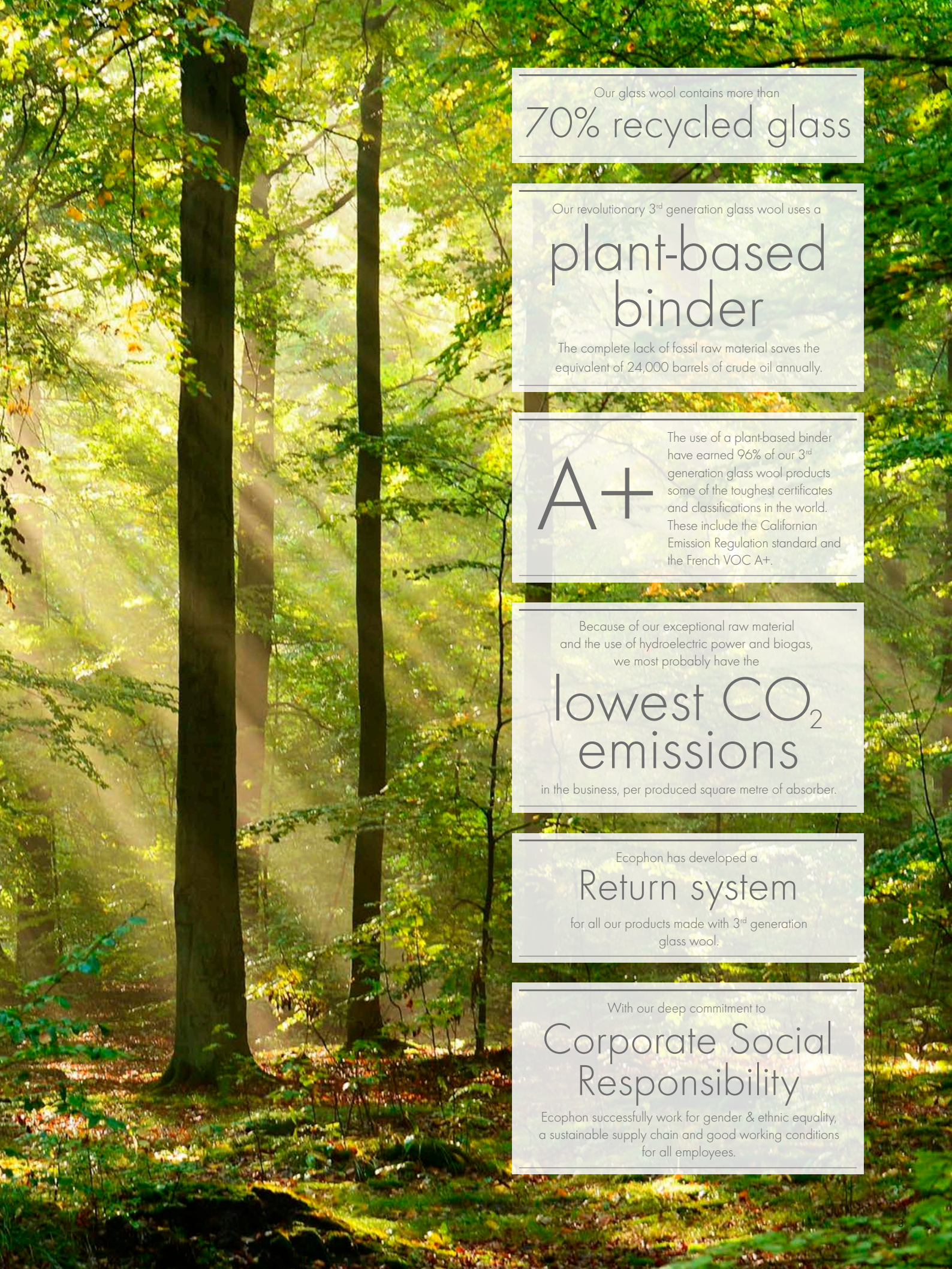
With this fundamental respect for people, we care strongly about all their environments. That's why we continuously strive to improve production techniques, materials used, and everything else that adds to our environmental footprint. As innovation is imprinted in our DNA, this is our way forward also on the sustainability field.

Caring about people is the best way to secure a better tomorrow. And that's why we at Ecophon take great pride in making sure that our business is sustainable, inside and out. From each and one of us, to every corner of the world we reach into.

/François Michel
CEO at Ecophon

123RF/Piotr Krzeslak

Idea and layout: navigator. Printer: Skånetryck AB. Cover: 123RF/Piotr Krzeslak, Getty Images/Lisa5201



Our glass wool contains more than

70% recycled glass

Our revolutionary 3rd generation glass wool uses a

plant-based binder

The complete lack of fossil raw material saves the equivalent of 24,000 barrels of crude oil annually.

A+

The use of a plant-based binder have earned 96% of our 3rd generation glass wool products some of the toughest certificates and classifications in the world. These include the Californian Emission Regulation standard and the French VOC A+.

Because of our exceptional raw material and the use of hydroelectric power and biogas, we most probably have the

lowest CO_2 emissions

in the business, per produced square metre of absorber.

Ecophon has developed a

Return system

for all our products made with 3rd generation glass wool.

With our deep commitment to

Corporate Social Responsibility

Ecophon successfully work for gender & ethnic equality, a sustainable supply chain and good working conditions for all employees.

World leading science
choose Ecophon

Just outside Lund in the south of Sweden, a majestic building appears. The perfect circle with a circumference of 528 metres is the heart of MAX IV, a world leading research facility where the invisible becomes visible, where the future is materialized. And it all happens in a facility that has been classified as BREEAM Outstanding, Green Building and Miljöbyggnad Guld. We at Ecophon are very proud to be a part of this futuristic place.

The design and construction of MAX IV were based on high-level environmental standards with an extensive programme for sustainable construction. The energy used will only come from renewable sources. The green roofs improve insulation and help stabilise the temperature in the experiment halls, while at the same time store and delay rain water drainage, reduce the impact on the sewage systems and improve the wildlife environment. LED lights were installed in all buildings and the ventilation is highly controlled. The construction process in itself included goals for "greener" logistics, low energy consumption, minimum waste and waste management.

Besides the sustainability classifications, the innovative approach has also awarded the facility the prize for best future project at the MIPIM real estate show in Cannes in 2014.

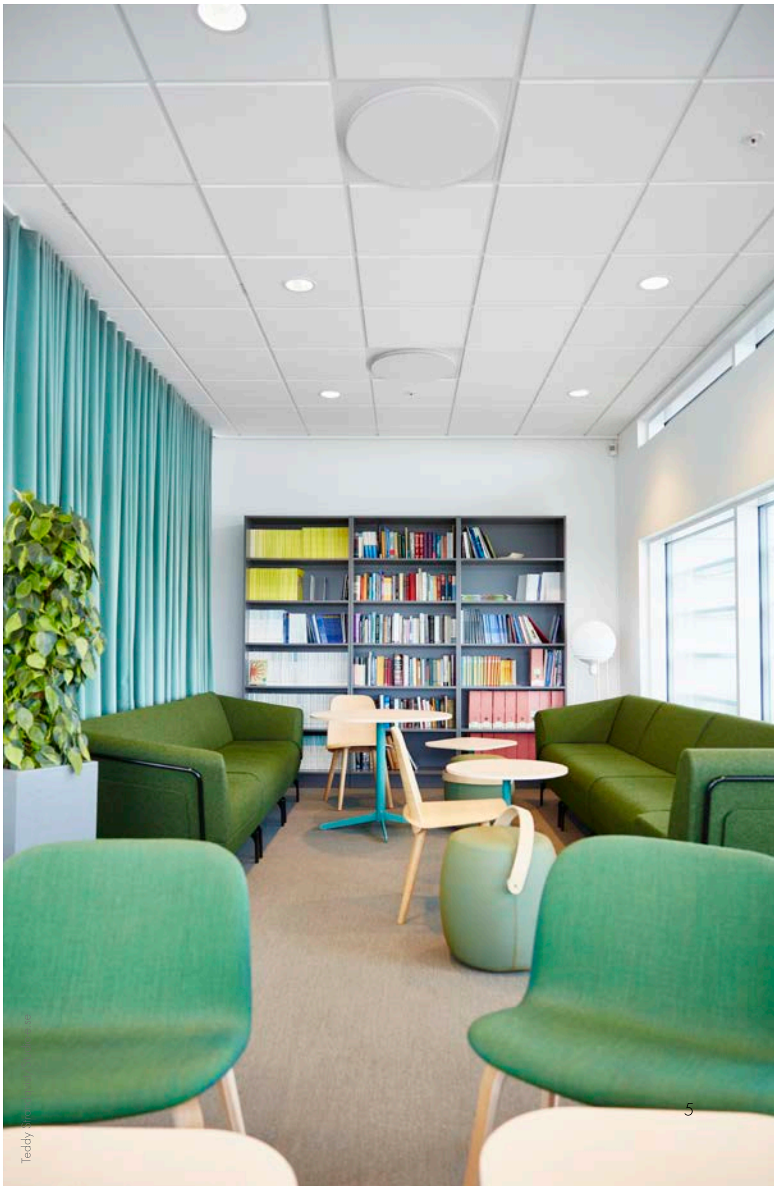
Concentrating in peace and quiet

Every year 2,000 scientists and researchers from all over the world are welcomed to MAX IV. In order to give them a workplace where they can truly shine, MAX IV also set very high demands for the sound environment in the offices. Much higher than Swedish standards, which by an international comparison already are very high.

To achieve the goals, Ecophon sound-absorbing systems were used throughout the offices and in the large canteen. Ecophon sound-insulating products were used to prevent the spreading of sound from one space to another. Altogether creating a working environment where the scientists can focus on uncovering our future.

Learn more about MAX IV: www.maxiv.lu.se

Teddy Strandqvist/Studioe.se



How does MAX IV work?

MAX IV has constructed and built the most advanced synchrotron light source ever created by man. Electrons are accelerated through the circular storage units and the X-ray light they emit can then be extracted through beamlines to about thirty research stations. When extracted, the X-ray beams work as a "super-microscope", enabling scientists to study the most minuscule particles of materials. The new knowledge will be used to enhance the performance of commonly known material and to develop materials and products that we cannot even imagine today. Current research projects are being conducted in the fields of biology, physics, chemistry and environmental science, as well as geology, engineering, pharmacology and cultural heritage.

Teddy Strandqvist/Studio-e.se

Teddy Strandqvist/Studio-e.se

Teddy Strandqvist/Studio-e.se

Ecophon's contribution
to sustainable buildings

The green building certification schemes are becoming important tools to encourage and reward social and environmental responsibility. Ecophon acoustic products have excellent sound-absorbing properties but also have other technical qualities that contribute to the interior environment. Choosing Ecophon solutions can therefore help you earn a variety of credits/points towards your certification by, for example, LEED, BREEAM and WELL.

LEED*

Using Ecophon products can earn you points in the following areas:

Credit category	Prereq./Credit	Credit name	Possible credits
Materials and Resources (MR)	Prerequisite	Construction and Demolition Waste Management Planning	
	Credit	Building Life-Cycle Impact Reduction	2-6
	Credit	Building Product Disclosure and Optimization - Environmental Product Declarations	1-2
	Credit	Building Product Disclosure and Optimization - Sourcing of Raw Materials	1-2
	Credit	Building Product Disclosure and Optimization - Material ingredients	1-2
	Credit	Construction and Demolition Waste Management	1-2
Indoor Environmental Quality (EQ)	Prerequisite	Minimum Acoustic Performance (Schools)	
	Credit	Low-Emitting Material	1-3
	Credit	Indoor Air Quality Assessment	1-2
	Credit	Indoor Lighting	1-2
	Credit	Acoustic Performance	1-2

BREEAM*

Using Ecophon products can earn you points in the following areas:

Section	Credit No.	Assessment issue	Possible credits
Health and Wellbeing	Hea 02	Indoor Air Quality	5
	Hea 05	Acoustic Performance	6
Materials	Mat 01	Life Cycle Impacts	6
	Mat 03	Responsible Sourcing of Materials	4
Waste	Wst 01	Construction Waste Management	4

*Figures calculated by Ramboll Sweden, 2016-04-28

WELL

Using Ecophon products can earn you points in the following areas:

WELL Categories	Category point preconditions	Category points optimizations	Saint-Gobain Ecophon impact
Air	12	17	Yes
Water	5	3	N/A
Nourishment	8	7	N/A
Light	4	7	Yes
Fitness	2	6	N/A
Comfort	5	7	Yes
Mind	5	12	Yes

Knowledge
leads the way

You can't improve anything until you understand it. That's why we do in-depth life cycle analyses to uncover every aspect of our products' environmental impact. Armed with that knowledge, we push ourselves to improve every phase, from sourcing raw materials and production to transportation and waste management.

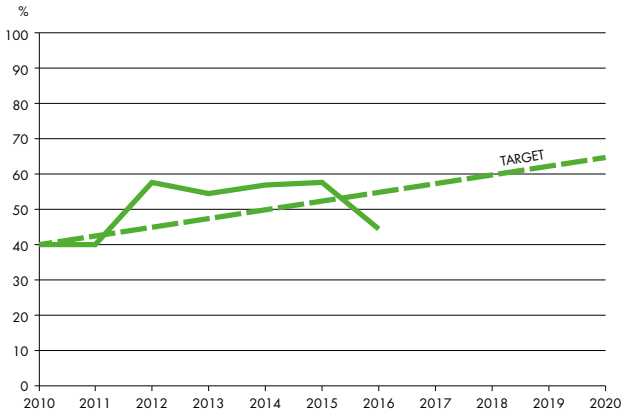
Environmental Product Declarations for Ecophon products

Our approach in adopting a responsible attitude starts with knowledge of the environmental impact of each stage in the product's life. We have therefore carried out cradle-to-grave Life Cycle Assessment (LCA) studies of our products according to the international ISO 14025 and EN 15804 series of standards. These LCA studies provide the foundation for establishing internationally standardised Environmental Product Declarations (EPD) for Ecophon products and systems. In the EPDs you can for example find the CO_2 emissions per product.

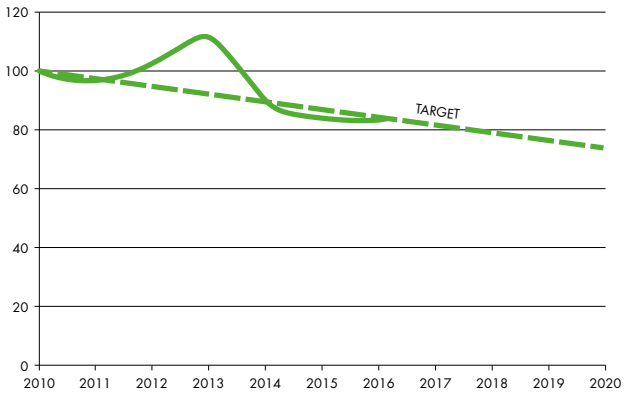
EPD VERIFIED

All Ecophon EPDs are available at ecophon.com and at EPD International's website: **environdec.com.**

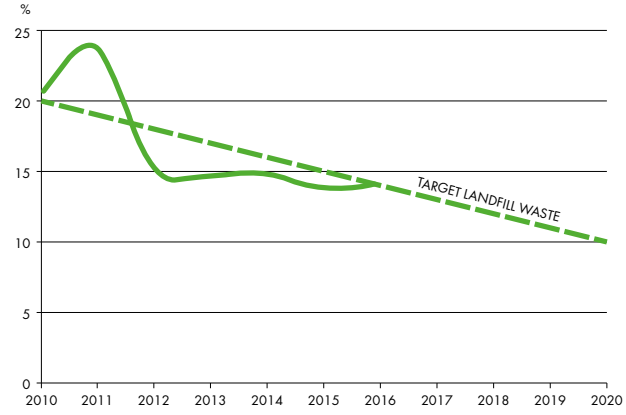
Ecophon targets



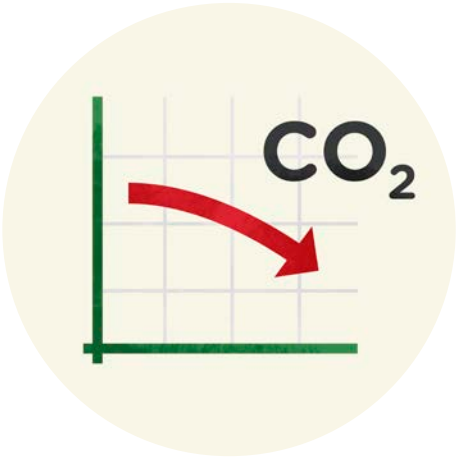
Increased share of renewable energy
Our target is to increase the share of renewable energy at Ecophon's plants from 40 to 65 percent by 2020.



Reduced energy consumption
By 2020, we want to achieve a 25 percent reduction in energy consumption at Ecophon's plants.



Waste to landfill
Our target is to reduce our waste to landfill to 10% by 2020.



Environmental policy

Ecophon recognises its responsibilities to our environment and the scale of environmental impact of its activities, products and services. Our overall goals describe how we will act to minimise our effects on humans and the environment. Ecophon follows laws and regulations.

We are actively committed to:

- Manufacturing and marketing sustainable products that contribute to a healthy working environment
- Decreasing waste, energy use and CO_2 emissions
- Always selecting components with low environmental impact
- Increasing the proportion of renewable and recycled content in our products

We've come a long way in our effort to minimise our environmental impact, but we have no intention of getting lazy. Our planet needs greener solutions more than ever. To sustain our efforts, we've set out ambitious goals that we plan to reach by 2020.

Choosing raw material
the responsible way

All production demands raw material and the use of resources in some form. It is therefore very important to consider the environment as you choose your materials and resources. Ecophon has a long history of using safe ingredients and recycled content in our products.

More than 70% recycled glass
The core material in Ecophon sound absorbers is glass wool. Our glass wool consists of more than 70% recycled glass: old bottles and jars that are thus reused instead of being discarded. One traditional wine bottle is actually enough to produce the glass wool needed for one and a half regular Ecophon panels.

The production facilities for the glass wool are located very close to Ecophon's facilities, keeping transport to a minimum.

3rd generation glass wool
Recently, we've made a leap forward by converting the majority of our products to a plant-based binder. This means that our revolutionary 3rd generation glass wool combines more than 70% recycled glass with the new, plant-based binder. The complete lack of fossil raw material in the glass wool saves the equivalent of 24,000 barrels of crude oil annually.

2nd generation glass wool
Our 2nd generation glass wool combines more than 70% recycled glass with a phenolic-based binder. 2nd generation glass wool products are available on some markets and is used for specific climates and conditions.

Paint

Ecophon only uses water-based paints for our acoustic panels. For our grids the paint is polyester-based. All paint components can be found on the European REACH list of safe chemicals. Read more about REACH at **echa.europa.eu**

Steel

The metal used to manufacture Connect grids and accessories consist of more than 20% recycled steel.

Pallets

The wood used to make our shipping pallets is both FSC- and PEFC-certified. This means the wood come from well managed forests that provide environmental, social and economic benefits. Read more about FSC at **us.fsc.org**, and PEFC at **pefc.org**

Packaging material

All materials used in packaging our products are 100% recyclable.

Using renewable energy
and optimising the process

Ecophon has production facilities for acoustic panels in four countries: Sweden, Finland, Poland and Denmark. We also produce our Connect grid system at our facility in Sweden.

Some watts are better than others

One of the production bonuses of glass wool compared to some other types of ceiling material is that no additional material must be burned to melt it. However, it will always take energy to produce our panels. But we can take control of where that energy comes from. So far, two of our factories are largely powered by hydroelectric power and biogas, bringing the CO_2 emissions way down. We are also taking additional steps by optimising the production process.

EcoDrain™ – instead of production waste

Ecophon has successfully developed a recycling technique in the form of EcoDrain™ lightweight aggregates for levelling. Using EcoDrain™ can reduce the demand for sand – a resource that's becoming more and more scarce.

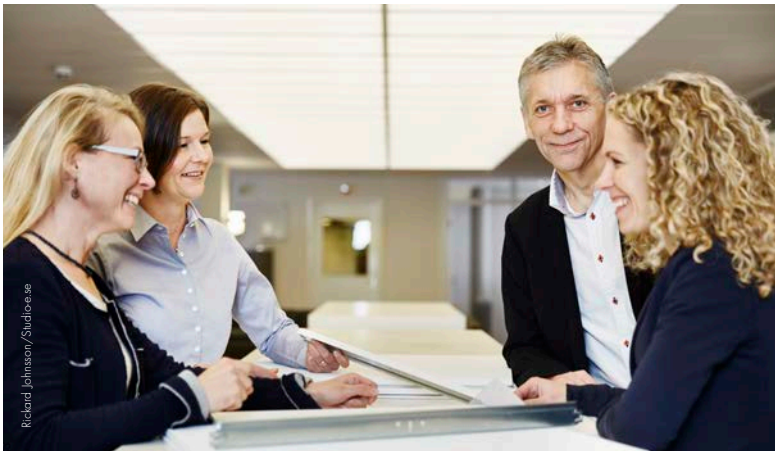
Made initially by converting glass wool dust from the production process, this system now includes whole discarded or returned panels.

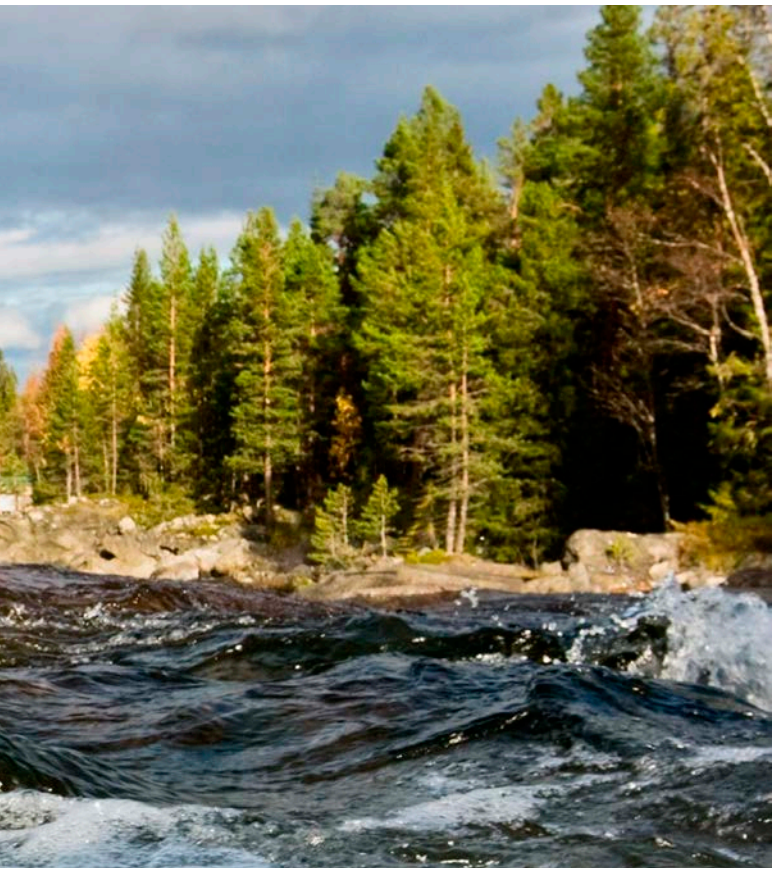
Safety for workers

All our production processes must live up to the demands of the International Organization for Standardization (ISO) 14001:2004 and the Occupational Health & Safety Assessment Series (OHSAS) 18001:2007. ISO analyses the environmental impact of processes, while OHSAS monitors the impact of processes on people's health and safety. Our facilities have the following certifications:

- Denmark – ISO14001:2004, OHSAS 18001:2007
- Finland – ISO 14001:2004
- Poland – ISO 14001:2004
- Sweden – ISO 14001:2004, OHSAS 18001:2007

We are also proud of the fact that our production process is very safe for our employees. We have been producing panels for more than a million working hours with zero lost-time accidents.





Lightening the load

reduces emissions

Glass wool happens to be the lightest acoustic panel material out there. That means trucks burn less fuel moving them than any other type of panel. That, of course, also applies when they're shipped by sea or by rail.

123RF/Andrey Stupilo

Example:
An 18-metre long-distance truck (70 m^3 and 26 ton load capacity) can carry approx. 3,500 m^2 of an Ecophon ceiling system, consisting of the acoustic panels and the necessary quantity of grids and accessories. The total weight will be 9 tons.

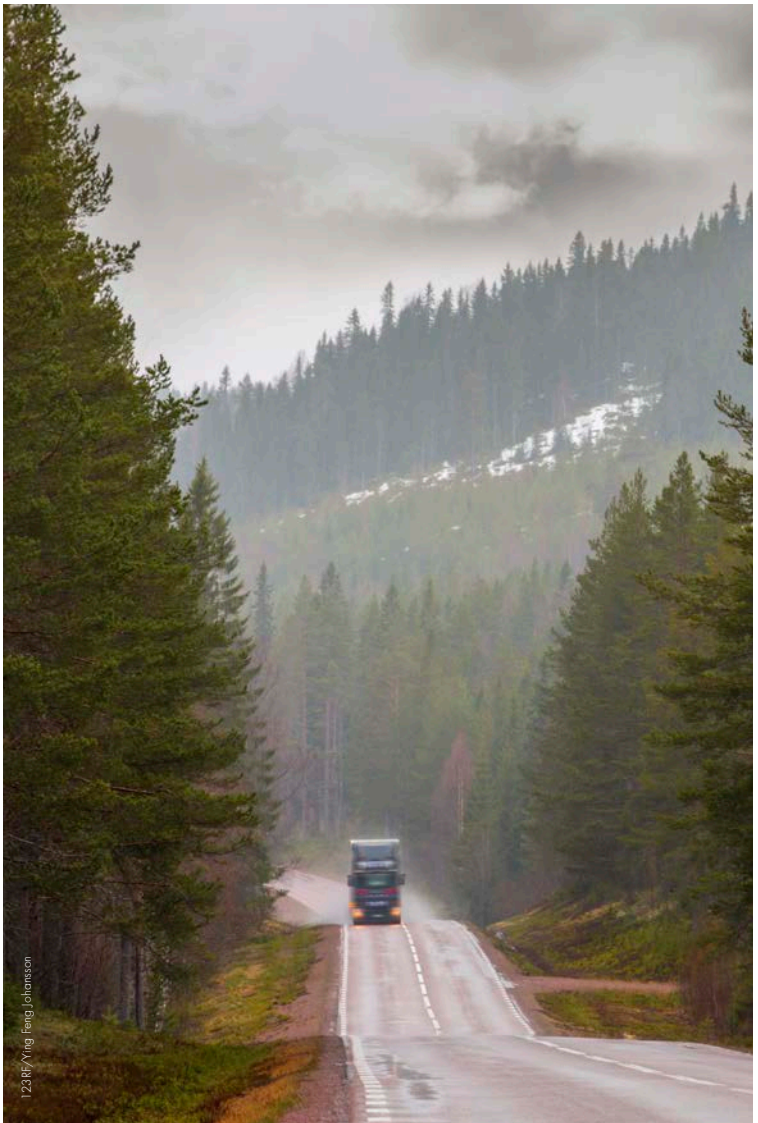
If we instead load the same truck with 3,500 m^2 of a wet felt ceiling, with a panel thickness of 18mm and a weight of 3.3 kg/m^2, the total load weight, incl. grids and accessories, will be 15.3 tons.

If the transportation distance for example is 600 km, we get the following fuel consumption:

Ecophon alternative: 167 litres
Wet felt alternative: 196 litres
Result: wet felt needs approx. 17% more fuel.

On the horizon
But we are not content to just produce and transport the lightest material. We are also working on new ways to pack more panels per trip. One example of this is when we maximised the possible number of acoustic panels on a truck bed, simply by reducing the thickness of the wrapping material and cartons.

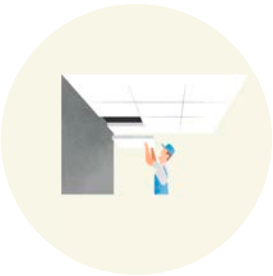
When procuring transportation services we only enlist companies that are ISO 14001 certified or have a majority of vehicles that are EURO 5 certified.



123RF/Ying Feng Johansson

Lightweight and robust

means easy and fast installation



The advantages of Ecophon glass wool panels are plenty. Among them is the fact that it is a very lightweight material, making installation easy and effortless. The resilient material is at the same time very robust, which enables it to be used in large panels, without any risk of sagging or the need for extra support. Its rigidity also means you can cut holes in the panels without the risk of them cracking or breaking.

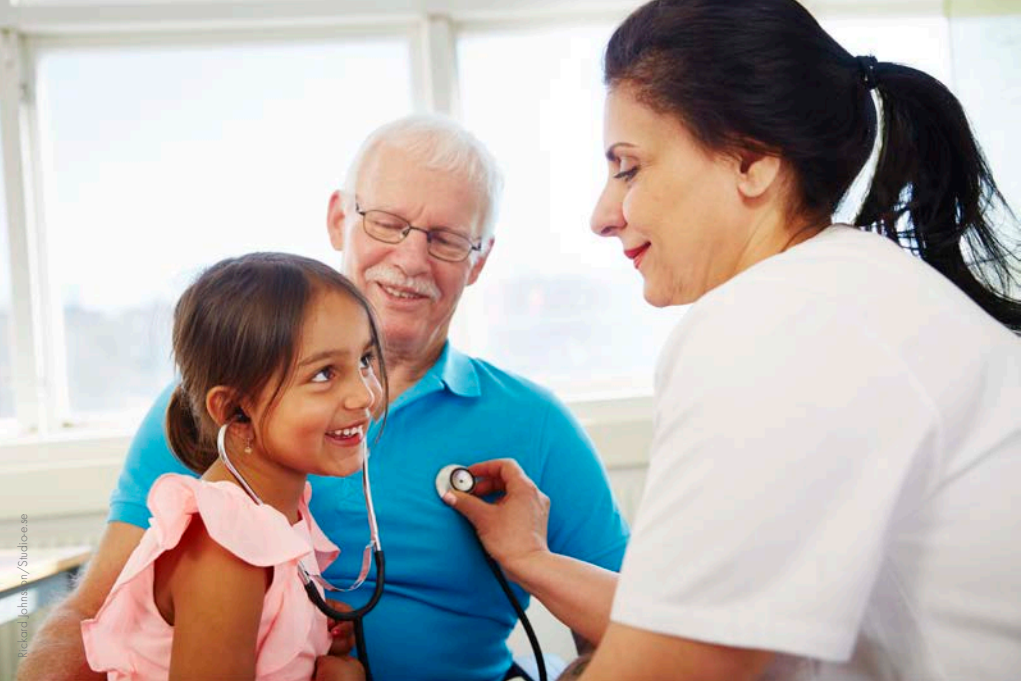
Richard Johnsson/Studio.se

Well-established contractor collaboration

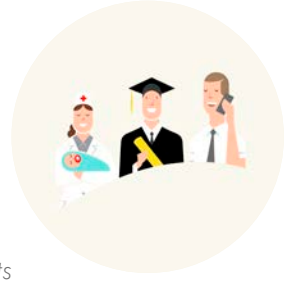
One of the goals of our product development is to produce easy-to-install solutions. A key element in making this a reality is our close cooperation with ceiling contractors. We both want the same thing, to enhance their working environment and everyday life. Together we find solutions that benefit everyone. These solutions are then passed on to their colleagues at local installation training sessions, organised by every local Ecophon office for the ceiling contractors in their country. Ecophon also offers comprehensive installation guides, installation films and many more tips and tricks via our website and social media channels.

Minimising on-site waste

Our acoustic systems have been ingeniously designed to simplify installation and minimise on-site waste. To make this even easier we even have systems that don't need any cutting or adaptation. These systems include Ecophon Master™ Matrix, Ecophon Solo™, Ecophon Extra Bass and Ecophon Akusto™ One. When contractors use other Ecophon products, our return system offers them the possibility to return the offcuts to Ecophon.



A sound effect on people
when the building is in use

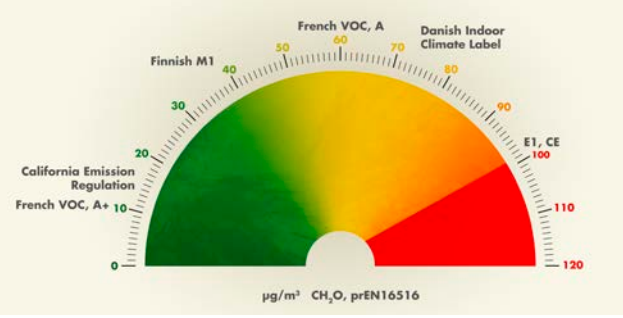


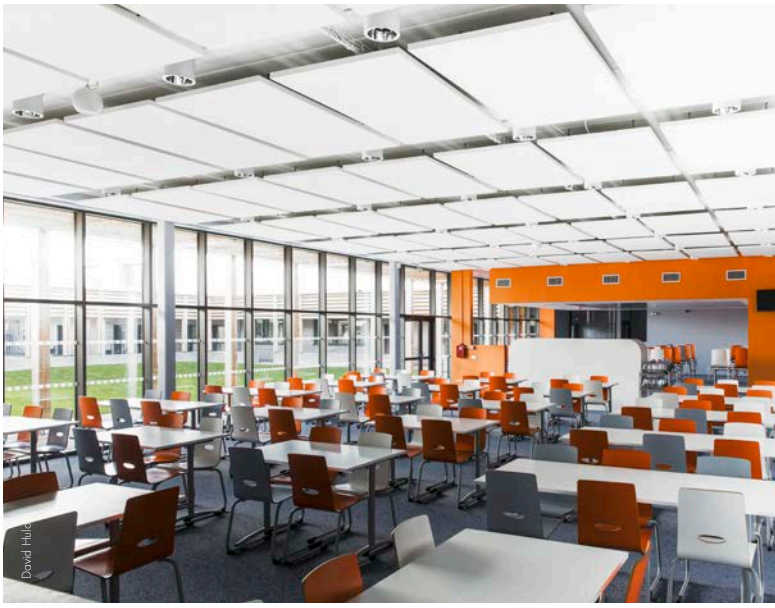
Over hundreds of thousands of years, our ears have evolved to provide perfect hearing outdoors, in nature. But today most of us spend up to 90% of our time indoors, in environments that are not suitable for the human ear.

The reason Ecophon exists is to enhance people's wellbeing and performance, where they work and communicate. In schools, our solutions make it possible for students and teachers to communicate with each other, and for children to remember what they have learned. In offices, our solutions are easily adapted to suit all the tasks of everyday business, such as deep concentration, talking on the phone, meetings, video conferencing, teamwork, brainstorming or multitasking desk work. In healthcare settings our solutions make it possible for patients to rest, sleep and recover. At the same time they make it easier for nurses and doctors to perform their vital tasks and to hear all the crucial information that is constantly being communicated.

Highest indoor air quality standards

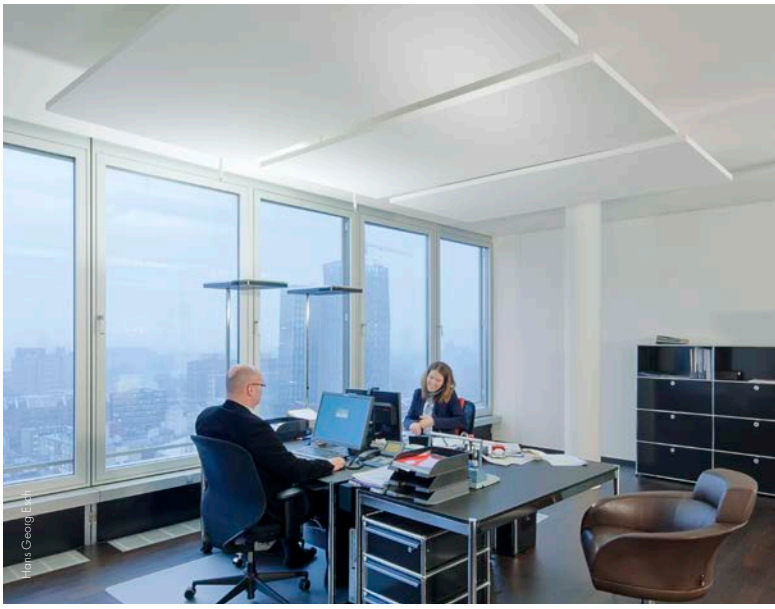
Good indoor air quality is essential for people to be able to perform at their best. Since some products emit a lot more chemicals and substances than others, it is important to choose the right type of products. We are proud that 96% of our 3rd generation glass wool products comply with the California Emission Regulation standard and French VOC A+, the toughest standards in the world for formaldehyde and VOC emissions.



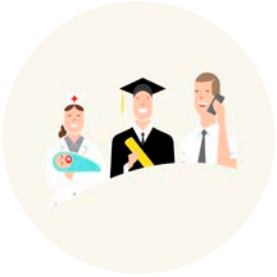


Supporting thermal comfort

In buildings with concrete core cooling, TABS (Thermally-Activated Building Systems), the ceiling cannot be fully covered with acoustic panels. For thermal transfer reasons, heat must be allowed to pass between the room and the concrete slab. Ecophon has two ceiling systems that are ideal for TABS buildings: Ecophon Master™ Matrix and Ecophon Solo™. Based on extensive studies and tests, using these systems with a ceiling coverage of 60 per cent will maintain thermal performance and at the same time provide a good acoustic environment. And if you combine them with Ecophon Akusto™ Wall, Ecophon Akusto™ One and Ecophon Akusto™ Screen you can achieve an atmosphere that is very pleasing to both the ear and the eye.



A sound effect on people
through premium product properties



We at Ecophon take great pride in developing sound absorbers that not only deliver great acoustics, but also are completely safe and durable. For everybody who works with the products, and for the people in the spaces where they have been installed.

Durable and easily maintained

Soft and white doesn't mean fragile. Our absorbers are extremely durable and don't really need any maintenance except the occasional cleaning. If you need access to the ceiling void you can easily remove panels and then put them back again. And if you need a ceiling solution to be impact resistant or secured, we have solutions for this as well. And they are still removable.

Ecophon offers a web-based tool to generate a maintenance guide that is tailored to your specific project. When you enter the Ecophon products you have used, a unique document will be created. It will include information to ensure the correct treatment of your products during their lifetime. Create your guide at ecophon.com/maintenance-guide.

The importance of certificates

When it comes to the indoor environment you can rest assured that our systems are completely safe. Our sound absorbers are continuously tested to make sure they meet the toughest indoor standards. Ecophon products are also recommended by the Swedish Asthma and Allergy Association.

Influence of climate

On our precious Earth, there are many different outdoor climates, with different levels of humidity. Indoor environments are sometimes designed to have a certain humidity level or to support a very specific activity, such as laboratory work. Ecophon has solutions for almost every conceivable indoor environment. Ecophon Connect grids and accessories are also developed to withstand high humidity and corrosive environments.

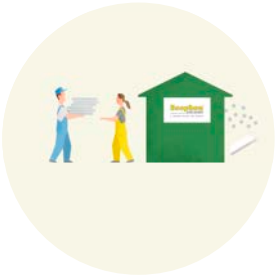
Fire safety

When it comes to fire safety we test all our products according to the European classification standard EN 13501. The result is that all our products are classified as A2-s1, d0, which is the second best out of 40 levels in the classification.

Light and bright

To feel good and to be able to perform, we need light. The surfaces of the materials used in buildings should therefore assist in this. What you need are surfaces that have good light reflectance and light scattering. Ecophon ceilings have superior surface technology that actually reduces the need for installed lighting. In turn this means less energy is needed to light up workplaces.

Turning waste into
new applications



Ecophon doesn't see waste as just waste. By working actively to reduce, reuse, recover and recycle it, we are aiming for a future with zero waste to landfill.

Panels
We take responsibility for the whole life cycle of our products. This is the reason we have developed a return system for our products made with 3rd generation glass wool. The returned panels and offcuts are presently turned into EcoDrain™ lightweight aggregates that are used for levelling. Using EcoDrain™ can reduce the demand for sand – a resource that's becoming more and more scarce.

Grids
Our grids are made from galvanised steel and can therefore be fully recycled, melted and turned into new steel products.

Packaging material
All packaging materials that Ecophon uses to deliver products are easily recyclable by our customers. This applies to both the cartons and the polyethylene (PE) plastic wrapping, which can either be recycled or incinerated without emitting any dioxins.

Production waste
The same procedure as we use for returned offcuts is also used to take care of both dust and offcuts from our production, turning them into EcoDrain™.

The scraps of metal from our grid production are recycled along with all other waste from production. These commitments have reduced our production waste to landfill to 15%.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© Shutterstock_Tatjana Strelkova


“At Saint-Gobain,
we are committed to
constantly innovating to
meet individuals’ daily
expectations, wherever
they live, while thinking
about the future of
all of us”
Pierre-André de Chalendar
Chairman and Chief Executive Officer, Saint-Gobain
SAINT-GOBAIN

Step by step
into the future

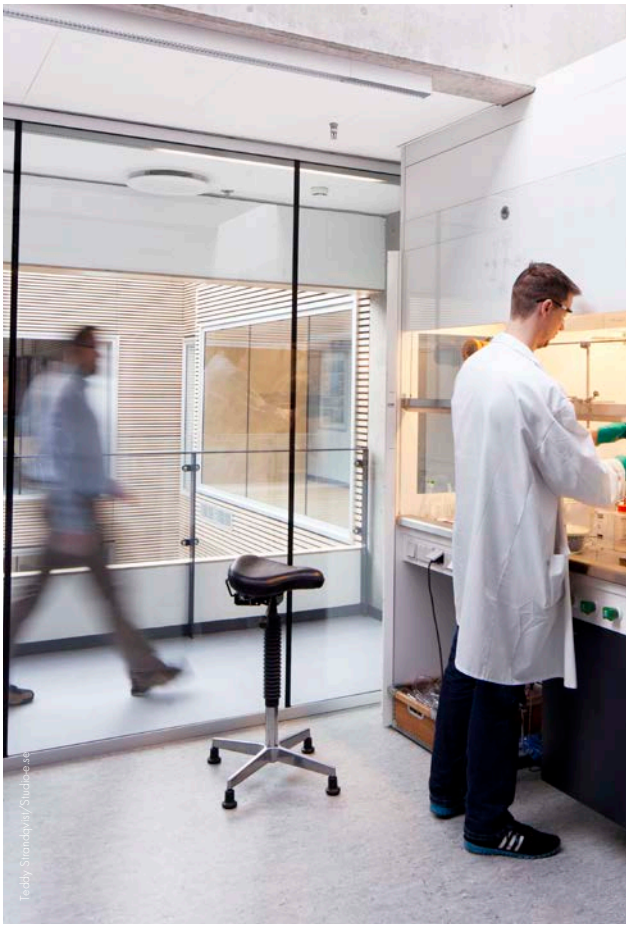
We are not done. There is always a new leaf waiting to unfold. That's why Ecophon will never stop inventing new and even more sustainable solutions – for the planet and for all of us who live here.

Increasing demand for green buildings
The demand for comprehensive data on the environmental impact of products has increased in the last decade, along with the development of certifications for green buildings. Ecophon has for some years been able to supply this information in easy-to-use Environmental Product Declarations. But even though our figures are most probably the best in the business, we still want to reduce them even further.

Saint-Gobain gives us strength
As a part of Saint-Gobain, one of the world's largest industrial groups, we have all the resources necessary to succeed. Through a combination of research, innovative processes and product development we will achieve lower environmental impact throughout our products' life cycles.

Bringing the sharpest minds together
In addition to our Research and Development Department, Ecophon has in 2016 initiated a new research endeavour. The collaboration includes Ecophon, Saint-Gobain Recherche, our suppliers, the Technical University of Denmark and Lund University. Together we will carefully examine the future of sound absorbers, raw materials, production processes and the functional properties of our products, to make sure we continue to develop the most sustainable solutions on the market.

Standardisation leads the way
Ecophon has a long history of participating in, and sometimes leading, standardisation committee work. This is something we believe very strongly in, and will continue to do. Because as more and more countries around the world establish a standard for what the indoor environment should deliver, the better it is for the people who will work there. And that is what Ecophon is all about – to have a sound effect on people. Now and in the future.



Ecophon®
SAINT-GOBAIN

A SOUND EFFECT ON PEOPLE

Ecophon has its roots in the fertile soil in Hyllinge, Sweden. Nurtured by values like innovation, quality, design and sustainability, our company has a unique business approach. We bring to the world unique solutions designed to have a sound effect on people.

We are a global supplier of acoustic systems that contribute to good room acoustics and a healthy indoor environment with the focus on offices, education, health care and industrial manufacturing premises. Our efforts are guided by a vision of earning global leadership in room acoustic comfort through sound-absorbing systems, enhancing end-user performance and wellbeing.

Ecophon is part of the Saint-Gobain Group, one of the top 100 industrial groups in the world, constantly innovating to make living spaces more comfortable, cost-efficient and sustainable. For 350 years, Saint-Gobain has consistently demonstrated its ability to invent products that improve quality of life. No matter what new needs emerge in the habitat and construction markets, the future is made of Saint-Gobain.

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