

Many of the strategies used to improve airflow, temperature regulation, energy conservation and daylighting can also lower acoustic performance.

In fact, post occupancy evaluations conducted by the Center for the Built Environment (CBE) at the University of California, Berkeley reveal that green building acoustics are typically worse than their traditional counterparts. Over half of survey respondents feel that noise inhibits their work.

LEED[®] program

The United States Green Building Council (USGBC) has attempted to deal with these acoustical weaknesses by providing specific credits in LEED[®] programs for schools and healthcare and introducing *Pilot Credit 24: Acoustics*, which is available for testing in New Construction and Commercial Interiors.

Having credits certainly helps draw attention to this vital aspect of Indoor Environmental Quality (IEQ). However, it's also essential to have a good understanding of how particular green choices can impact acoustics and the available solutions.

How can we help?

The LogiSon[®] Acoustic Network facilitates sustainable design strategies that would otherwise render such spaces less functional and effective.

For example, the background sound level in most conventional offices is already too low. The use of high-efficiency heating and cooling systems means that it's generally even lower in green buildings. Conversations and noises can easily be heard, even from afar, and are more disruptive. These problems are intensified when open windows are used to assist with air circulation allowing exterior sounds to drift inside. In some cases, different strategies are used along the exterior and core, creating variable acoustic conditions across the space.

The LogiSon Acoustic Network replenishes the background level, maintaining it at the correct volume and frequency range needed to cover conversations and incidental noises. Fine control



over small adjustment zones allows the sound to be tuned to maximize acoustic consistency across the space. Indoor Environmental Quality is greatly improved. Natural ventilation can also be employed without affecting speech privacy or the amount of disruptions occupants experience due to noise.

In addition, in an effort to maximize daylighting and promote air circulation, green buildings generally utilize more open plan space than their traditional counterparts. Workstation panels are often lowered or dispensed with altogether. The LogiSon Acoustic Network improves noise isolation in open areas.

Many green buildings also have open ceilings because they promote natural light penetration from the windows and, in some cases, the exposed deck can help control temperature. If the facility, or a percentage of it, features an open ceiling, the LogiSon Acoustic Network's loudspeakers easily blend in with other components, such as the light fixtures.

When included in a project's design stage, the LogiSon Acoustic Network decreases material requirements, particularly for walls, increasing the flexibility of the space and reducing the amount of construction waste that ends up in landfill following renovations. It helps maintain acoustical control as density increases, increasing the potential of staying in the space for a longer period.

The LogiSon Acoustic Network can also help project teams earn LEED[®] credits.

And because we feel it's important to protect the environment, we support green goals in more ways:

Energy consumption

- The LogiSon Acoustic Network's energy consumption is very low: an 80W low-voltage supply powers spaces up to 10,000 square feet. Typical usage is approximately 0.005 W/ft² and maximum usage is 0.012 W/ft².
- Power Supplies are UL Energy Efficiency Certified (IEMP Level V).
- Our facility is 100% powered by renewable energy, using green electricity from EcoLogo certified sources.

Environmental programs

- We voluntarily comply with the Restriction of Hazardous Substances (RoHS) directive, which is part of an initiative to solve the problem of toxic e-waste. Our products meet its requirements for low levels of heavy metals, such as lead, mercury, cadmium and more.
- Loudspeakers are damped with formaldehyde-free fiberglass.
- Cabling is plenum-rated, reducing flame and smoke development and limiting introduction of chemicals into circulated air. Components are also UL 2043 rated for air-handling plenums, with non-brominated and non-chlorinated housings.

Lifecycle & maintenance

- The LogiSon Acoustic Network has a long lifespan. Beyond physical durability, its flexibility ensures sustained high performance over its life.
- Modular, networked components and cabling are easily removed, relocated and reused. Small and exceptionally flexible adjustment zones mean it can easily be configured for the new space.



Janet Trout Photography

Recycling program

- Our recycling partner ensures zero landfill.
- Our cardboard packaging is 100% recycled, with 95% post-consumer content.

Educational outreach

- Our registered AIA/CES program *Green Acoustics: General Lessons & the Role of Sound Masking* qualifies for 1 LU/HSW/SD Hour.
- We've published numerous articles on green acoustics in well-known industry magazines and contributed to green standards documents, including upcoming LEED[®] credits.

Effective acoustics doesn't have to be at odds with a commitment to sustainability.

For more information, ask your local LogiSon Representative for our **Acoustical Challenges in Green Buildings** white paper.