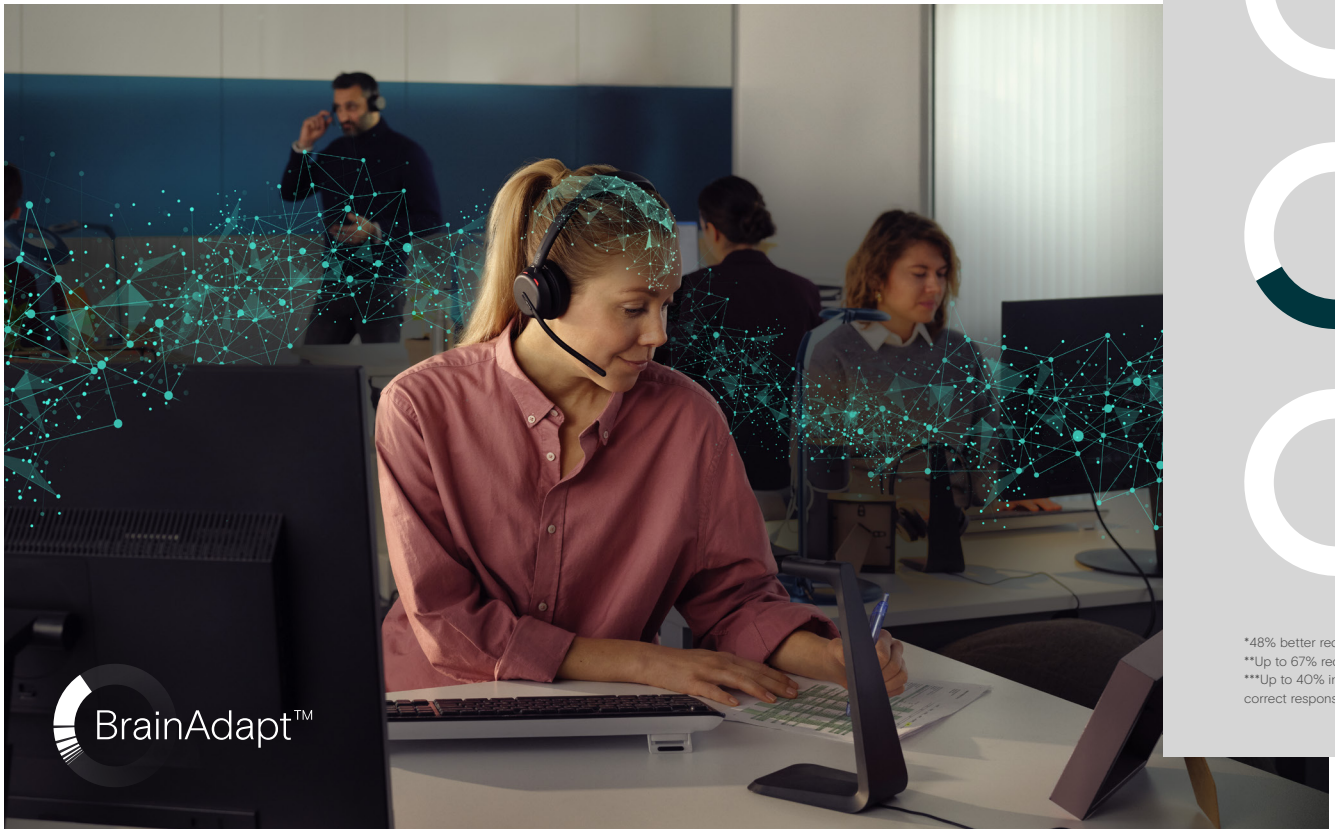
EPOS BrainAdapt™ New Evidence

Protect Your Brain in the Open Office with IMPACT 1000

In a clinical study conducted at the Centre for Applied Audiology Research in Oticon, Denmark, participants tested the benefits of EPOS noise attenuation technology by performing a dual task consisting of understanding speech and solving a visual task.

Based on this study, researchers were able to conclude that EPOS noise attenuation, such as the hybrid adaptive ANC in IMPACT 1000, provides several benefits to users when they need to perform both an audio and a visual task, including better recognition of speech, reduced listening effort and increased efficiency.



The Benefits of EPOS Noise Attenuation

48%

better recognition of speech-in-noise*

People can understand speech better when the noise is attenuated.

67%

reduction of listening effort**

Users spend less effort listening, and therefore, have more available cognitive capacity for other tasks.

40%

increase in efficiency***

Noise attenuation increases efficiency by improving reaction time without loss of precision.

*48% better recognition of speech-in-noise as indicated by percentage of correctly repeated words.
**Up to 67% reduction of listening effort, on average, as reflected by the subjective listening effort ratings.
***Up to 40% increase in efficiency, as reflected by the ratio between accuracy and reaction time for the correct responses.

Made for the New Open Office

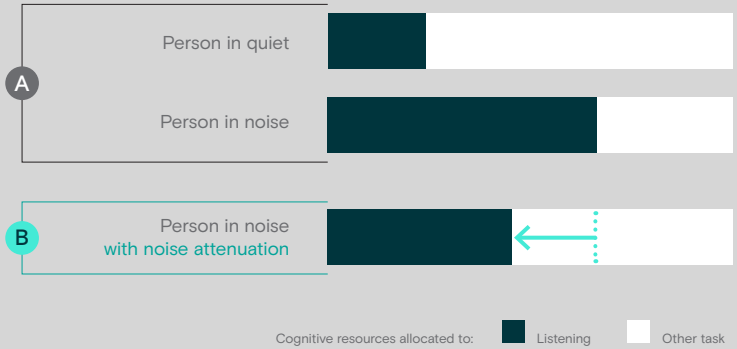
Whether you are in a corporate open office or in your open office space at home, professionals are often surrounded by noise and sound clutter. This makes it difficult to concentrate and in turn, makes people more fatigued and less productive. Featuring hybrid adaptive ANC, the IMPACT 1000 is proven to improve speech recognition by 48% and reduce listening effort by up to 67%. Built on EPOS BrainAdapt™ Technology and backed by psychoacoustic research, the IMPACT 1000 enhances a user's ability to perform when conducting dual tasks, wherever they are.

A Dual Task Study

Many situations in everyday life require understanding speech and, at the same time, solving a visual task. For example, in professional contexts and hybrid meetings, people often need to listen to a colleague speaking during a call while at the same time reviewing and processing information being presented on a screen. The purpose of this study was to better understand the potential benefits of noise attenuation in EPOS audio devices when people need to 'dual task'.

In situations with background noise, the brain requires additional cognitive resources to process sound. However, our cognitive capacity is a limited commodity, so when the brain needs to allocate additional resources to one task, we have a reduced capacity to perform other tasks.

Allocation of Cognitive Resources



Findings from this study demonstrate that EPOS noise attenuation reduces listening effort when people are required to understand speech in situations where there is background noise. This, in turn, frees up cognitive resources to be used on other tasks. In today's digitalized workplace we need to be able to collaborate, communicate and focus wherever work happens. Whether in the office, at home, or somewhere in between, EPOS BrainAdapt™ is the key to improved performance and better communication throughout the workday.

This study is just one example of decades of psychoacoustic research conducted by the Demant Group, of which EPOS is proud to be a part of. The learnings collected in this study and others are applied in ongoing development of EPOS BrainAdapt™ solutions, which are designed to support the brain's natural way of processing sound. Learn more about the research conducted by EPOS in collaboration with researchers from Oticon in the Centre for Applied Audiology Research (CAAR) in Denmark and read the full whitepaper **here**.

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