



EPOS BrainAdaptTM

Solutions built on EPOS BrainAdapt™ technology reduce cognitive load on the brain caused by poor audio, leading to better performance and improved communication. As part of the Demant Group, a world-leading hearing healthcare and technology group, EPOS has the data on how and when the brain performs best and integrates pioneering technologies into our product portfolio.

For professionals today, the benefits are many, including reduced listening effort, better speech recognition in noisy environments, improved memory recall and increased efficiency.

Audio Designed for Your Brain

EPOS BrainAdapt™ is a group of pioneering technologies that work together to help improve cognitive performance.



EPOS Pioneering Technologies

Headset Solutions

Pioneering technologies such as EPOS hybrid adaptive active noise cancellation and EPOS machine learning algorithms are designed and tuned to provide the brain with the best conditions to perform. We achieve this by enhancing the right sounds and reducing disturbances, to help the brain focus with less brain effort spent.



EPOS Industry Leading Voice Pick-up

Noise reduction algorithms within the microphone system intelligently identify and remove background noise around the user. The result is crystal clear voice transmission that reduces cognitive load and improves communication.



EPOS Adaptive Active Noise Cancellation

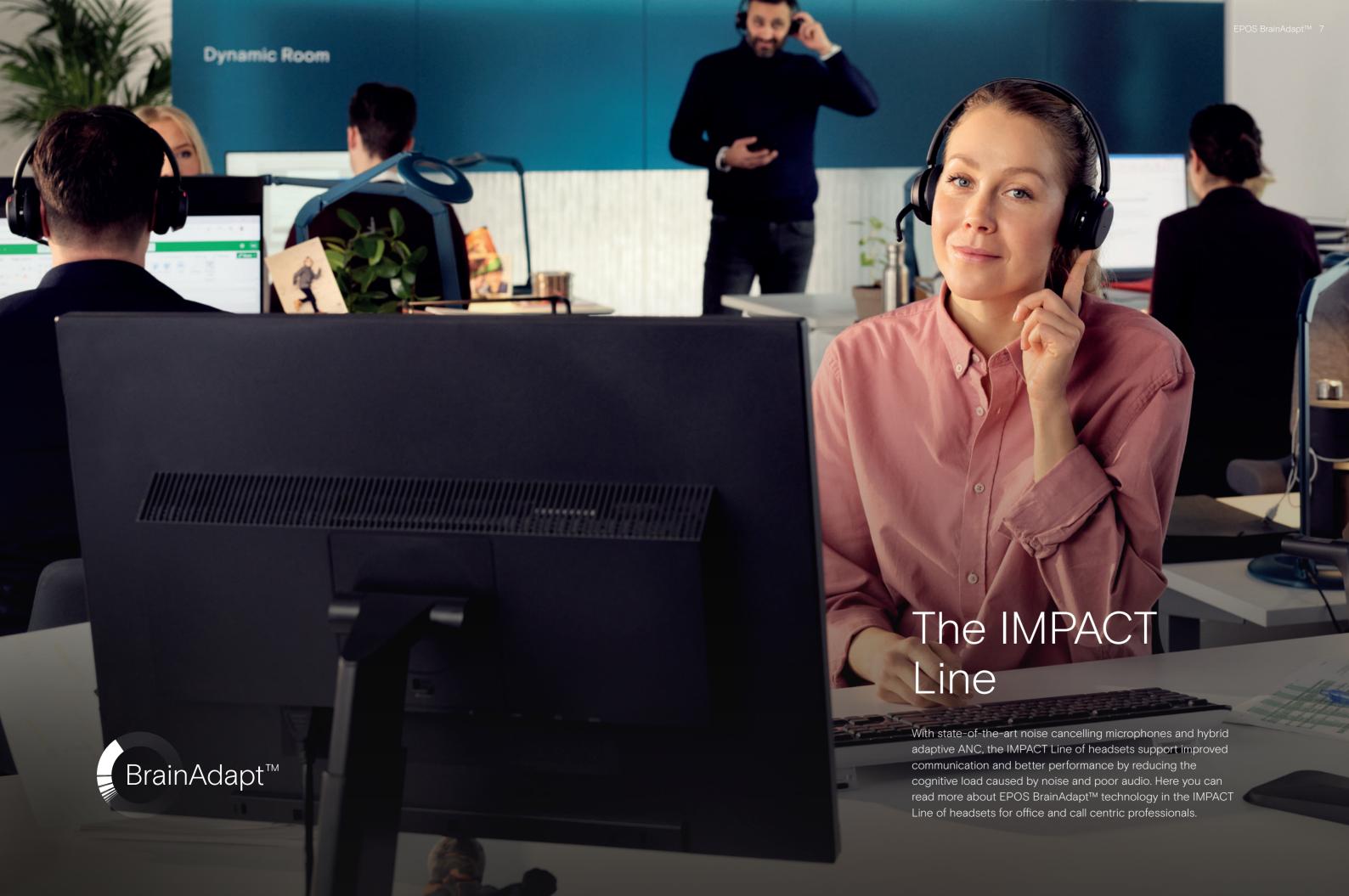
The integrated technologies in EPOS adaptive ANC constantly monitor the user's environment and adjusts in real time, blocking out noise and providing the optimal level of noise cancellation allowing the brain to focus on what matters.



EPOS Machine Learning Algorithms

EPOS machine learning algorithms (EPOS Al™) optimizes the speech intelligibility of our products - by enhancing the right sounds and suppressing noise. EPOS has built its technology on a database of 12 million sound scenes, developed over thousands of hours and with many different reallife audio inputs. This has enabled EPOS AITM to "learn" the difference between the user's speech and other ambient sounds. By using AI that optimizes speech intelligibility through world leading speech-in-noise processing, we can provide crystal clear voice transmission, improving the ability of users to focus and concentrate with less brain effort spent.

¹ EPOS BrainAdapt[™] dual task study the effect of noise attenuation on listening effort, efficiency, and reaction time, while performing a dual task. Read the whitepaper here
² EPOS BrainAdapt[™] New Evidence: The effects of noise attenuation on listening effort and arousal. Read the whitepaper here.



IMPACT 5000

Series





Passive noise damping

- For professionals who spend many hours a day in calls, noise damping earpads reduce listening effort allowing users to have greater focus and deliver excellent call experiences.
- Earpad design, softness and material are designed to deliver comfort and effective noise damping, reducing cognitive load on the brain throughout the workday.



Superior sound

 Blocks out surrounding noise, transmitting the user's voice for exceptionally clear calls, allowing for better communication and collaboration.

- Super wideband audio delivers excellent, high-definition authentic voice reproduction so users can more easily decipher words, resulting in less listening fatigue.
- Highly advanced digital signaling processing (DSP) processes audio to filter out ambient noise, while maintaining a high level of speech intelligibility, that reduces listening effort and increases productivity.

IMPACT 1000 Series





Hybrid adaptive ANC

- Shuts down noise and helps your brain focus - even in busy open office environments.
- In a scientific study evaluating the performance of EPOS noise reduction technology, researchers found that the hybrid adaptive ANC is proven to significantly improve the accuracy with which users can recognize speech in noisy environments.
- Participants in the study were 48%¹
 better at understanding the other
 speaker and spent 67%¹ less listening
 effort.
- Findings from the study also showed that users were 10%² better at remembering what was said.



Industry-leading voice pick-up technology

- Advanced noise-reduction algorithms powered by EPOS AITM intelligently identify and shut down noise around the user, creating clear, focused and more productive conversations for both sides of the call.
- Proven in a scientific study to reduce listening effort users spent during virtual calls by 21%³.
- Users reported that concentrating on the conversation while in a call was 18%³ less difficult.
- Additionally, conversations between two people were 9%³ more efficient, based on analysis of the conversation dynamics.

¹ EPOS BrainAdapt[™] dual task study the effect of noise attenuation on listening effort, efficiency, and reaction time, while performing a dual task. Read the whitepaper here.

² EPOS BrainAdapt™ New Evidence: The effects of noise attenuation on listening effort and arousal. Read the whitepaper **here.**

³ EPOS BrainAdapt™ The Effects of Industry-leading Microphone Voice Pick-up on Conversation Dynamics and Efficiency. Read the whitepaper here.

IMPACT 800

Series





Hybrid adaptive ANC

- · Shuts down noise and helps your brain focus - even in busy open office environments.
- In a scientific study evaluate the performance of EPOS noise reduction technology, researcher found that the hybrid adaptive ANC is proven to significantly improve the accuracy with which users can recognize speech in noisy environments.
- Participants in the study were 48%1 better at understanding the other speaker and spent 67%¹ less listening effort.
- Findings from the study also showed that users were 10%2 better at remembering what was said.



Industry-leading voice pick-up technology

- · Advanced noise-reduction algorithms powered by EPOS AI™ intelligently identify and shut down noise around the user, creating clear, focused and more productive conversations for both sides of the call.
- · Proven in a scientific study to reduce listening effort users spent during virtual calls by 21%3.
- · Users reported that concentrating on the conversation while in a call was 18%³ less difficult.
- · Additionally, conversations between two people were 9%3 more efficient, based on analysis of the conversation dynamics.

IMPACT 700

Series





Industry-leading voice pick-up technology

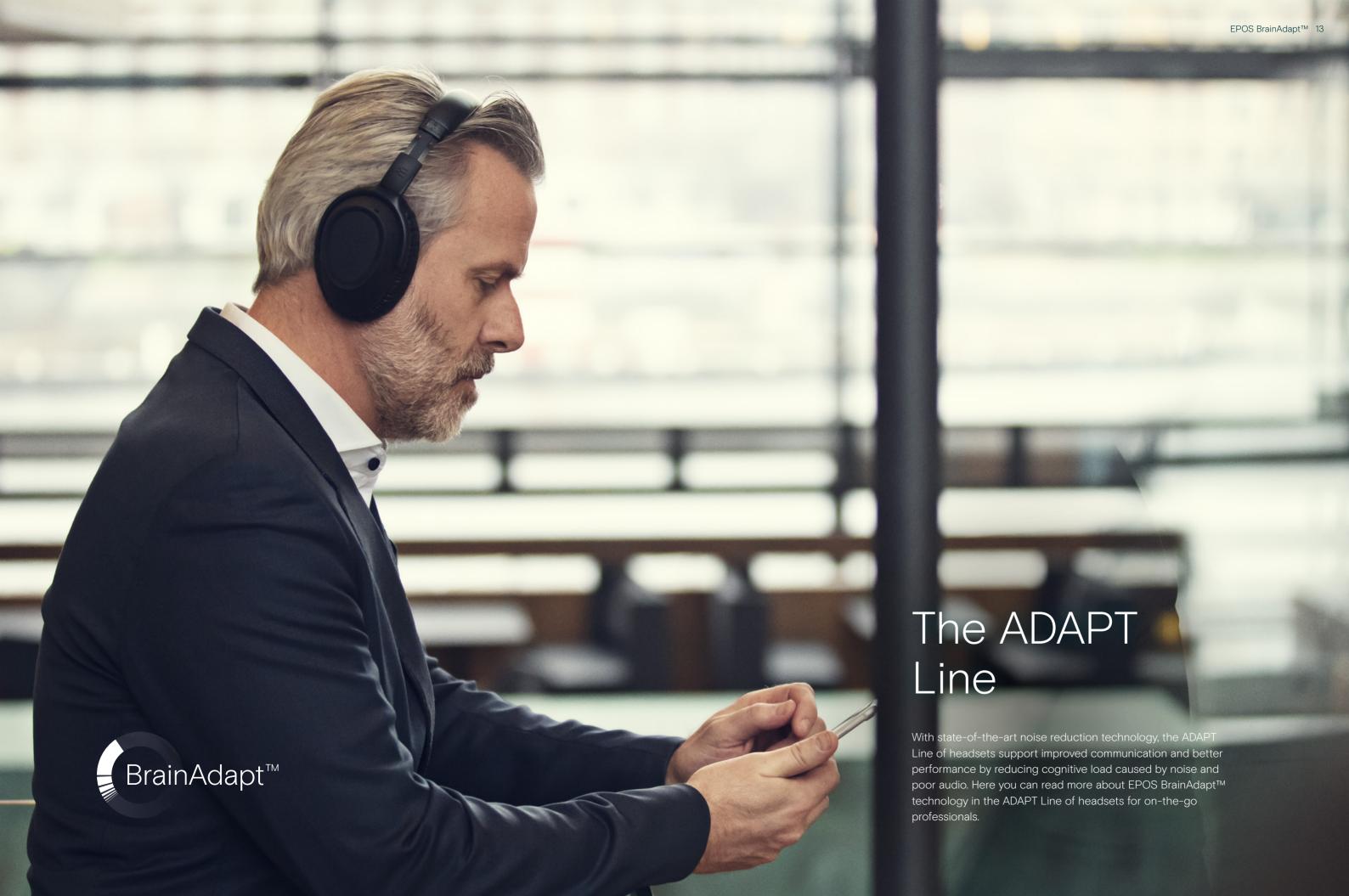
- Advanced noise-reduction algorithms powered by EPOS Al™ intelligently identify and shut down noise around the user, creating clear, focused and more productive conversations for both sides of the call.
- Proven in a scientific study to reduce listening effort users spent during virtual calls by 21%3.

- · Users reported that concentrating on the conversation while in a call was 18%³ less difficult.
- · Additionally, conversations between two people were 9%3 more efficient, based on analysis of the conversation dynamics.

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³ EPOS BrainAdapt™ The Effects of Industry-leading Microphone Voice Pick-up on Conversation Dynamics and Efficiency. Read the whitepaper here.



ADAPT 600 Series





Adaptive ANC

- An adaptive ANC system with 4 microphones monitors the environment and adjusts noise reduction accordingly, so users spend less listening effort in noisy environments.
- Proven in a scientific study to significantly improve the accuracy with which users can recognize speech in noisy environments, by up to 20%².

- Participants in a scientific study were 48%¹ better at understanding the other speaker and spent 67%¹ less listening effort.
- Users were 10%¹ better at remembering what was said.



EPOS AI™

 Machine learning developed algorithms analyze the surrounding environment and optimize voice pick up, for a natural listening experience.

ADAPT 500 Series





Hybrid ANC

- By removing unwanted noise, an advanced hybrid ANC system helps the brain from becoming tired and unfocused.
- To provide the best comfort while not compromising ANC performance, the headset caliber pressure is optimized to improve concentration.
- Soft ear earpads in a high-friction, textured fabric ensures optimal fit, comfortably forming to the user's ears and creating. a seal – ensuring high comfort as well as excellent passive damping.

 The headset fit, earpads and caliber pressure are carefully designed in combination to deliver optimal noise cancellation and reduce listening effort.



Foldable boom arm

 The short boom arm improves microphone pick-up for calls onthe-go, sending a clearer message for better speech recognition.

¹ EPOS BrainAdapt[™] dual task study the effect of noise attenuation on listening effort, efficiency, and reaction time, while performing a dual task. Read the whitepaper here ² EPOS BrainAdapt[™] New Evidence: The effects of noise attenuation on listening effort and arousal. Read the whitepaper here.





ADAPT 300 Series



ANC & passive noise damping system

 By removing unwanted noise, ANC and over-ear, passive damping earpads help prevent the brain from becoming tired and unfocused.



ADAPT 200 **Series**



Moderate passive noise damping

 In quieter working environments, moderate passive damping is ideal for reducing unwanted background noise for improved focus in calls.



Boom Arm with noisecancelling microphone

 A long boom arm means the speaker sends less noise and a clearer message when in calls, for more productive communications.



EXPAND Vision 5





Advanced Audio Processing

- Advanced DSP (digital signaling processing) algorithms promise natural and clear conversations for both sides of the meeting by filtering out ambient noise and room reverb.
- Double talk technology allows for conversations as if everyone is in the same room. This provides a meeting experience where people on both sides of the call can speak freely and naturally, eliminating broken conversations that can make a meeting frustrating and inefficient.
- High speech intelligibility reduces cognitive resources being spent trying to process unintelligible words.



The Microphone System

 Is designed with four, digital low noise MEMS microphones positioned to facilitate optimal conditions for precise beam forming and thereby efficient audio processing. This design is purposefully chosen to provide the optimal audio processing to support our brains cognitive processing in virtual meetings.



The Speaker System

- Our brains are not built to process artificial sound coming from speakers, so our speaker system is designed to deliver life-like voice reproduction.
- An optimized acoustical design with anti-vibration suspended speaker cabinets, ensures no unwanted mechanical resonances. Low-distortion and highly linear speaker drivers ensures natural reproduction of voices.
- A full frequency spectrum reproduction delivers authentic voice reproduction, providing the best sound for our brains to process.

EXPAND 80 Series





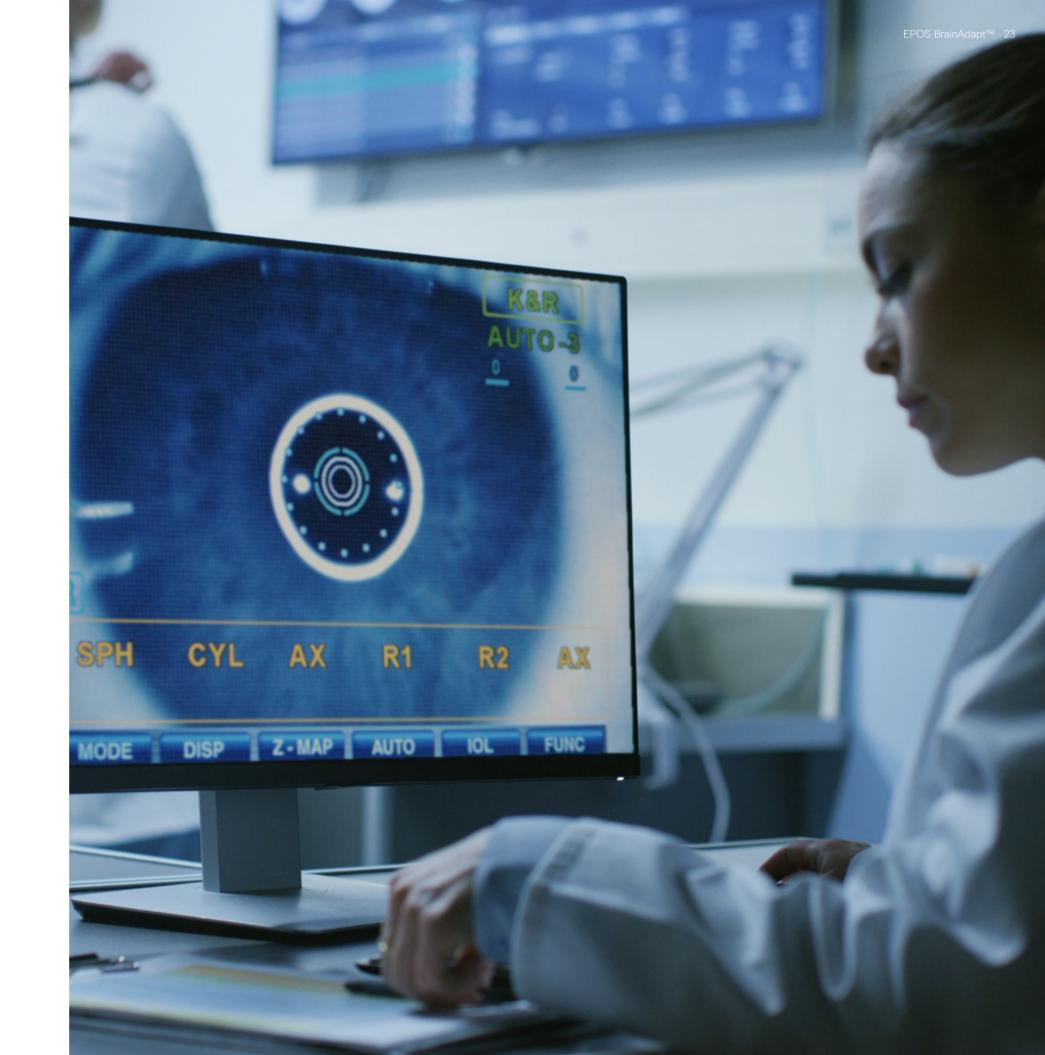
The Speaker System

- Exceptional speech intelligibility and industry-leading duplex performance, achieved through multi path, multilayer echo canceller, Digital Signal Processing (DSP) and dynamic speech enhancement algorithms work together to provide the ideal conditions for the brain.
- In calls marred by poor audio people use greater cognitive resources to process sound, and therefore have fewer resources to focus on the call.
 This can lead to inefficiency and listening fatigue.
- Speakerphone Series EXPAND 30, EXPAND 40 and EXPAND 80 are designed to provide a natural and seamless conversation experience that reduces cognitive load.

Building on a Long Audio Heritage

EPOS has always strived to provide an unparalleled, natural sound experience based on our knowledge and expertise on how the brain processes sound. Using these insights, EPOS delivers technology features that empower professionals to communicate and collaborate effectively with less brain energy spent.

Through recent clinical studies measuring the cognitive load on the brain, we can now prove that EPOS solutions help to reduce listening effort and provide the brain with better conditions to perform. You can read more about EPOS research here.



THE POWER OF AUDIO

