



PHONAK

Media Release

Groundbreaking Microphone Technology to be launched by Phonak and Advanced Bionics

Stäfa (Switzerland) and Valencia (USA), 6. February 2018 - Phonak and Advanced Bionics today announce a breakthrough in new microphone technology, that will help people with hearing aids and cochlear implants hear better especially in noise. The invention is called MultiBeam Technology, which soon will be applied in new advanced wireless microphones. First scientific results with patients show large improvements in speech recognition.

People with hearing loss use hearing aids or cochlear implants to hear better. Despite huge advancements in these devices, fundamental barriers remain in noisy restaurants, large business meetings or social gatherings, all acoustically challenging environments. There, 31%¹ of people with hearing aids still have difficulties following conversations. This can lead to social retreat with further health implications.

Since September 2009 a highly specialized task force of more than 10 digital signal processing and acoustic engineers have been working on the development of MultiBeam Technology. By utilizing multiple microphones in six directions, speech from 360 degrees is calculated and compared. The direction with the best signal-to-noise ratio is automatically selected. The technological processing complexity is almost ten times higher than the previous technology generation from Phonak, and the power consumption was reduced by more than one third at the same time.

In a scientific investigation at the University of Texas in Dallas a group of 10 patients with hearing aids were tested in a situation which resembled a noisy restaurant or very noisy meeting with three conversation partners (see Figure 1). Speech understanding improves up to 61% in this group conversation in 75 dBA of noise compared to using hearing aids alone.² Professor Linda Thibodeau, from the University of Texas in Dallas who led the research, says: "The Multibeam Technology will allow persons with hearing challenges who have resigned from attending social functions, family gatherings and business meetings to experience significant improvements in speech recognition. This could ultimately lead to improved quality of life as they confidently reconnect with others using discreet, convenient and highly versatile technology."

Hans Mülder, senior audiologist and director marketing at Phonak says: "We are extremely happy to have achieved this milestone. It underlines the unwavering commitment of our finest engineers to never be satisfied with existing solutions but to continue to push the envelope of technology, so that more people can enjoy their lives to the fullest. We are now working hard to embed the new technology in coming solutions."

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¹ Abrams, H. B., & Kihm, J. (2015). An Introduction to MarkeTrak IX: A New Baseline for the Hearing Aid Market. *Hearing Review*, 22(6), 16.

² Based on preliminary data. Peer-reviewed article and Field Study News in preparation, available end of 2018 at www.phonakpro.com/evidence.

About Phonak

In 2017, Phonak, a member of the Sonova Group, proudly celebrates its 70th anniversary. Headquartered near Zurich, Switzerland, Phonak was born in 1947 out of a passion for taking on the most difficult hearing challenges. Seventy years later, this passion remains. As the industry's leading provider, we offer the broadest portfolio of life-changing hearing solutions. From pediatric to profound hearing loss, we remain committed to creating hearing solutions that change people's lives to thrive socially and emotionally. We believe in creating a world where 'Life is on' for everyone. For more information, please visit www.phonak.com, www.phonakpro.com

About Advanced Bionics

Advanced Bionics is a global leader in developing the most advanced cochlear implant systems in the world. Founded in 1993 and a subsidiary of the Sonova Group since 2009, AB develops cutting-edge cochlear implant technology that allows recipients to hear their best. AB offers the most sophisticated cochlear implant system on the market, the HiResolution™ Bionic Ear System, with five times more sound resolution than its competitors, designed to help recipients hear in noisy settings and enjoy the full dimensions of music. With sales in over 50 countries and a proven track record for developing high-performing, state-of-the-art products, AB's talented group of technologists and professionals from all over the world are driven to succeed, work with integrity and stay firmly committed to quality. To learn more about AB and its innovative cochlear implant technology, please visit www.AdvancedBionics.com

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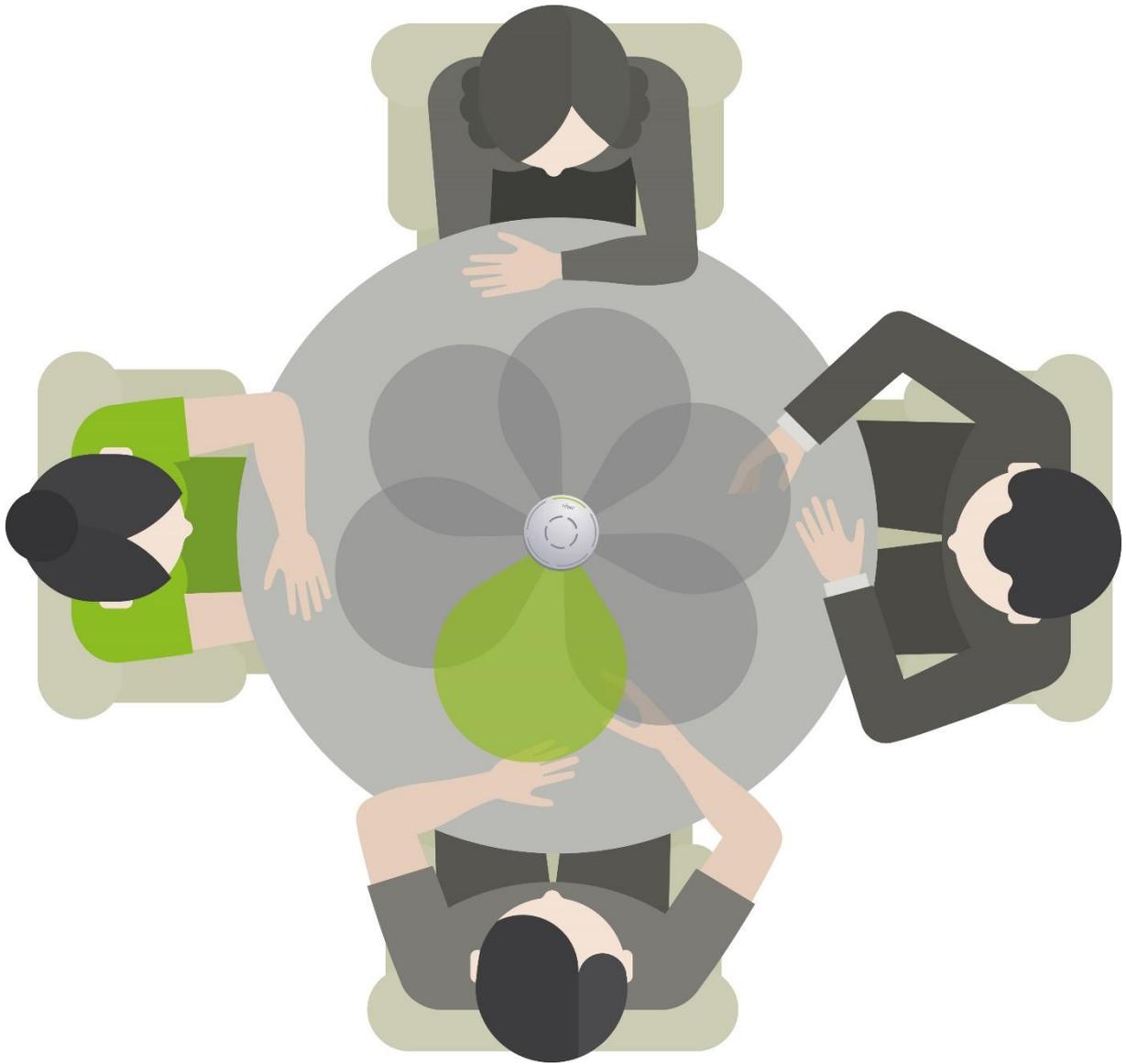


Figure 1 Illustration of MultiBeam Technology being used in a group of people in a noisy background