

**ReSound OMNIA** • Made for hearing in noise

# Hearing speech in noise is the biggest challenge for many



of hearing aid users still struggle to hear through noise<sup>1</sup>



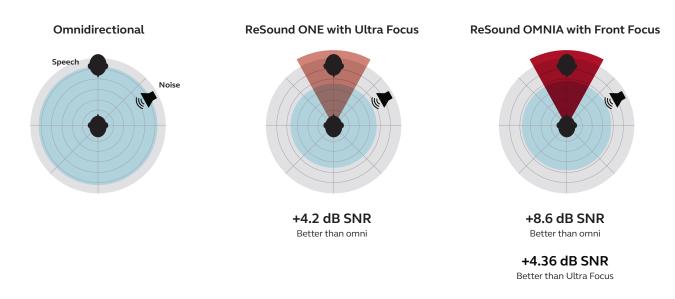
Hearing in noise is the #1 driver of satisfaction and the biggest unmet need for current hearing aid users<sup>1</sup>



Hearing in noise is the main reason for purchasing hearing aids<sup>2</sup>

#### Want your clients to hear their best in noise? Now they can with ReSound OMNIA.

ReSound OMNIA<sup>™</sup> cuts through the noise thanks to a scientific breakthrough that delivers 150% improvement to speech understanding in noise, deriving from an increased 4.36 dB SNR improvement compared to best-in-class legacy products<sup>\*</sup>. Powered by the industry's only Organic Hearing<sup>™</sup>, ReSound OMNIA brings you a solution that sounds natural, feels natural and helps your clients connect naturally to mobile devices and the world with ease. Now your clients can hear through the noise and live life to the fullest with ReSound OMNIA.



### How did we achieve this feat?

With ReSound OMNIA we introduce two new features, 360 All-Around and Front Focus, based on three key improvements:

## **1** Wider sound environment mapping

By giving your clients a wider sound environment mapping and ear-to-ear audio streaming, we remove any blank spots created by the head-shadow effect to enable your clients to never miss a sound in any situation. They hear clearer\* than ever before.

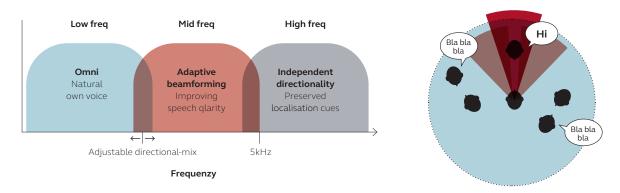
## 2 Faster detection, selection and adaptation to environments

We have completely redesigned our steering and analysis system to make faster and more accurate decisions about which listening mode to activate. This means that your clients hear more of what is important to them and less of what they don't want to hear, even in the most challenging environments.

#### More precise beamforming for our best speech clarity in any environment

We enhanced our adaptive directional beamforming performance to take the acoustic effects of the ear, head and torso into effect, vastly improving focus on sounds in front.

These three modes are working at the same time across any sound environment, enabling users to automatically tune into what they want to listen to and not have the hearing aids choose for them. In this way we can now enable your clients to hear through the noise.

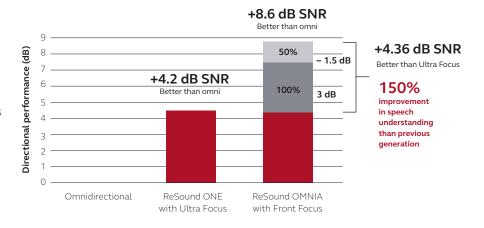


## The science behind the magic

Participants completed a speech recognition in noise test in 3 conditions: Omnidirectional mode, Ultra Focus mode and Front Focus mode. Throughout the tests, the noise was held constant and the level of speech increased or decreased. The test result is the difference between the speech level and the noise level (SNR).

We found that listeners performed 4.36 dB better with Front Focus than Ultra Focus. This means that with ReSound OMNIA we can increase the level of noise with  $\sim$  4.5 dB for the same performance in hearing speech.

Because a change of 3 dB in level is a doubling or halving and 1.36 is approximately half again as much, a total change in conditions of 4.36 dB would correspond to approximately 150%. This means that with ReSound OMNIA, equal performance to previous generation technology was achieved in test conditions that were 150% worse. ReSound OMNIA cuts through the noise with an **almost unbelievable 150% improvement in speech understanding.** 



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