

Open up to the world



A new paradigm
in hearing care



The hearing aid industry has **tunnel focus**

Technological limitations of current hearing aids have led to the use of tunnel directionality to make speech coming from the front clear, while suppressing the rest of the sound environment.

In complex listening environments where sound sources are many, dynamic and unpredictable, current hearing aid technology is too slow. Directionality and noise reduction systems working independently of each other limit hearing aid users by only focusing on one sound source coming from the front. All other sounds are treated as noise and subsequently closed down, resulting in a narrowed and artificial listening experience for the user.

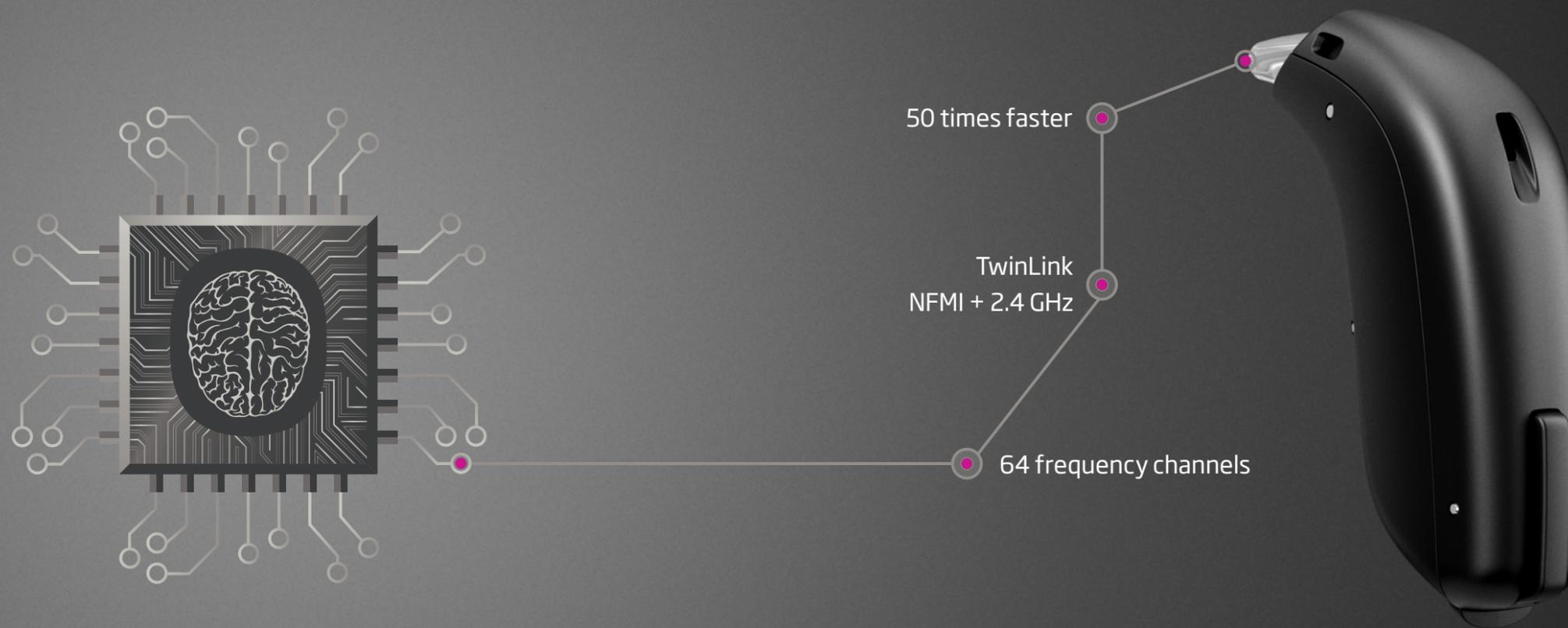
But when you close
down sounds
you close down life

Bad for the brain – bad for the user

Understanding speech in settings with multiple sounds is very challenging and exhausting for the brain. With its narrow directionality approach and slow reacting noise reduction, current technology poorly delivers on how the brain needs to understand, continually access and switch attention to make sense of sound.

Closing down sounds under-stimulates the brain and deprives it of the context needed for understanding. This stresses the brain and makes it harder for it to focus naturally and switch attention to something else when needed. Such under-stimulation makes social interaction much less enjoyable, increasing the likelihood of social withdrawal and the potential for faster cognitive decline.

Our new groundbreaking **Velox™** platform enables a paradigm shift in hearing care



Processing sound 50 times faster than ever before*, Oticon Opn™ is fast and precise enough to support the brain in making sense of sound

Market-leading performance

- 50 times faster data processing than ever before
- Market-leading resolution with 64 frequency channels
- Full environment analysis more than 100 times per second
- Capacity to handle more than 1,200 million operations per second
- World's first TwinLink™ communication system: Near-Field Binaural Communication for uncompromising binaural information exchange, and 2.4 GHz for advanced connectivity



Open up to a paradigm shift



Old World

When you close down sounds, you close down life.



New World

Our new, groundbreaking technology is fast and precise enough to analyse and follow the soundscape, and differentiate between sounds. It allows us to constantly open up and balance individual sounds to deliver a rich and meaningful soundscape, empowering the brain to choose which sound to focus on, and easily change focus if it so desires.

This way, we take a fundamental step forward in improving speech understanding in complex environments while, at the same time, preserving mental energy.

Old world

Focuses on one speaker,
suppresses all others



New world

Opens up the soundscape to
embrace multiple speakers



Oticon Opn™ introduces a breakthrough in **handling multiple speakers simultaneously**

With Oticon's new approach to delivering the best audiology, people with hearing loss will experience an open world. The extreme speed of this new technology stimulates users with more accurate information about the soundscape. This enables them to more easily locate and separate sound sources and focus on what they find important, while maintaining the full sound picture.

How do we **Open up** to the world?



Directionality as we know it is now a thing of the past. Oticon Opn delivers the ultra fast sound analysis and processing needed to provide hearing aid users with access to the sounds in their lives.

Introducing the **OpenSound Navigator™**



OpenSound Navigator



Step 1

OpenSound Navigator constantly scans the sound environment more than **100 times per second** to analyse the nature of the setting

Precise analysis of all sound sources accurately identifies speech and noise

Having established the setting of the sound environment, OpenSound Navigator analyses the nature of the sounds to determine their characteristics, if they are important speech or noise, as well as their position, level and frequency in relation to each other.



OpenSound Navigator

Step 2

OpenSound Navigator adjusts sound sources to deliver a full sound picture in perfect balance



OpenSound Navigator

To enable users to feel at ease in a sound environment, OpenSound Navigator balances surrounding sounds so the focus sound is clear and other background sounds are available, but not disturbing.

In this way, no sounds are eliminated but individual sound sources are rebalanced to support the user in separating sounds, making it easier for the brain to switch attention immediately when needed.

Oticon Opn can be optimised to personal preferences, based on individual needs for help in sound environments of differing complexity.

Step 3

OpenSound Navigator is so fast it can even attenuate noise between words



OpenSound Navigator attenuates excessive background noise extremely fast and effectively. This includes noise coming from the same direction as speech - even noise coming from the front - as well as all other surrounding noise in a 360° radius. It even removes the remaining noise between words, to make the overall background noise less intrusive.

Based on individual needs, noise reduction can be optimised separately for simple and complex environments.



OpenSound Navigator



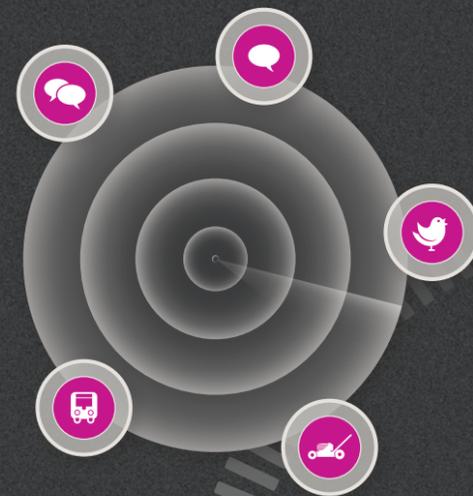
- = Words
- = Noise before
- = Noise after

OpenSound Navigator

- three steps in a **split second**

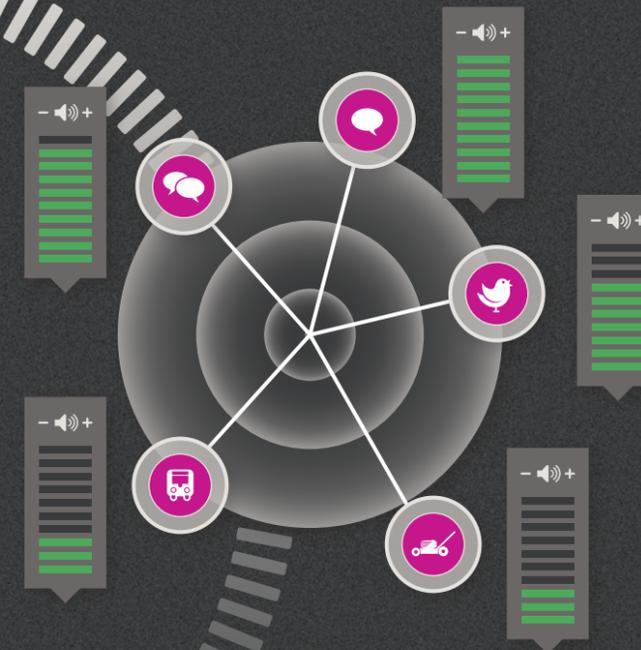
1: Analyse

Scans the full 360° sound environment more than 100 times per second and detects the level, position and frequency of speech and noise



2: Balance

Adjusts and balances the levels of individual sound sources



3: Noise removal

Rapidly attenuates excessive noise - even noise between words

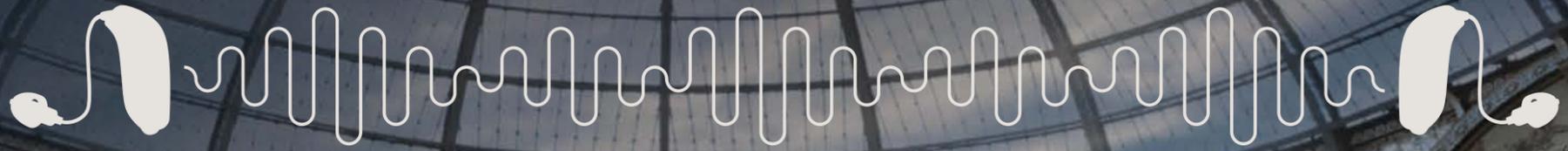
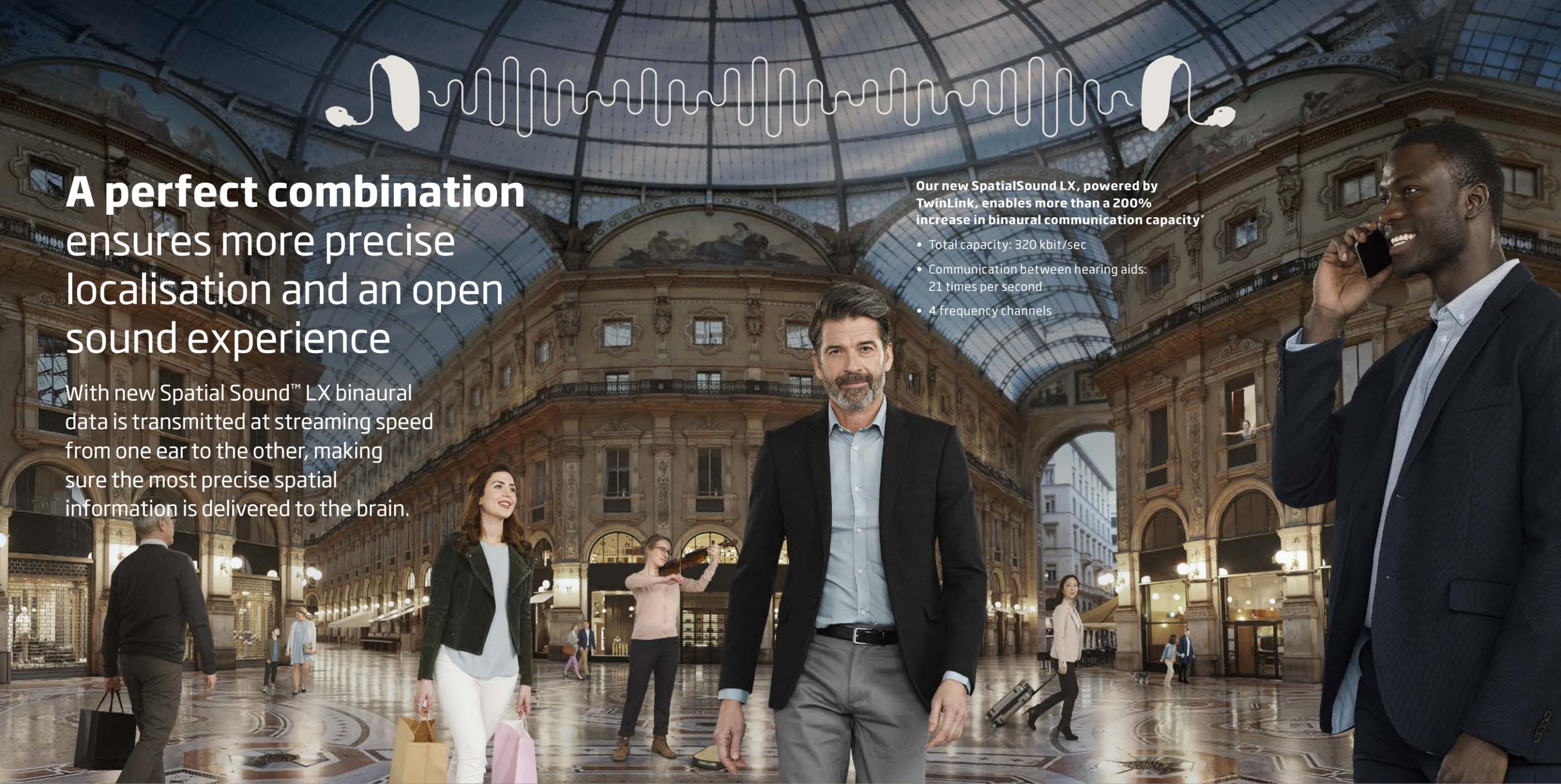


Through a multi-channel and always-open approach, OpenSound Navigator handles multiple dynamic speech and noise sources. This enables users to instantly capture and easily follow the dynamics of the sound environment.

Unlike old technology, OpenSound Navigator treats sound sources individually and based on their nature, without treating all other sounds as noise. Instead, it balances background sounds so the user can focus or switch attention when desired.



OpenSound Navigator



A perfect combination ensures more precise localisation and an open sound experience

With new Spatial Sound™ LX binaural data is transmitted at streaming speed from one ear to the other, making sure the most precise spatial information is delivered to the brain.

Our new SpatialSound LX, powered by TwinLink, enables more than a 200% increase in binaural communication capacity*

- Total capacity: 320 kbit/sec
- Communication between hearing aids: 21 times per second
- 4 frequency channels



OpenSound Navigator



Spatial Sound LX

An open sound experience

The open sound experience is made possible by an enhanced approach that enables binaural data transmission at streaming speed. This means hearing aids in both ears receive information even faster - ensuring a constant flow of information about the exact position of all sounds.

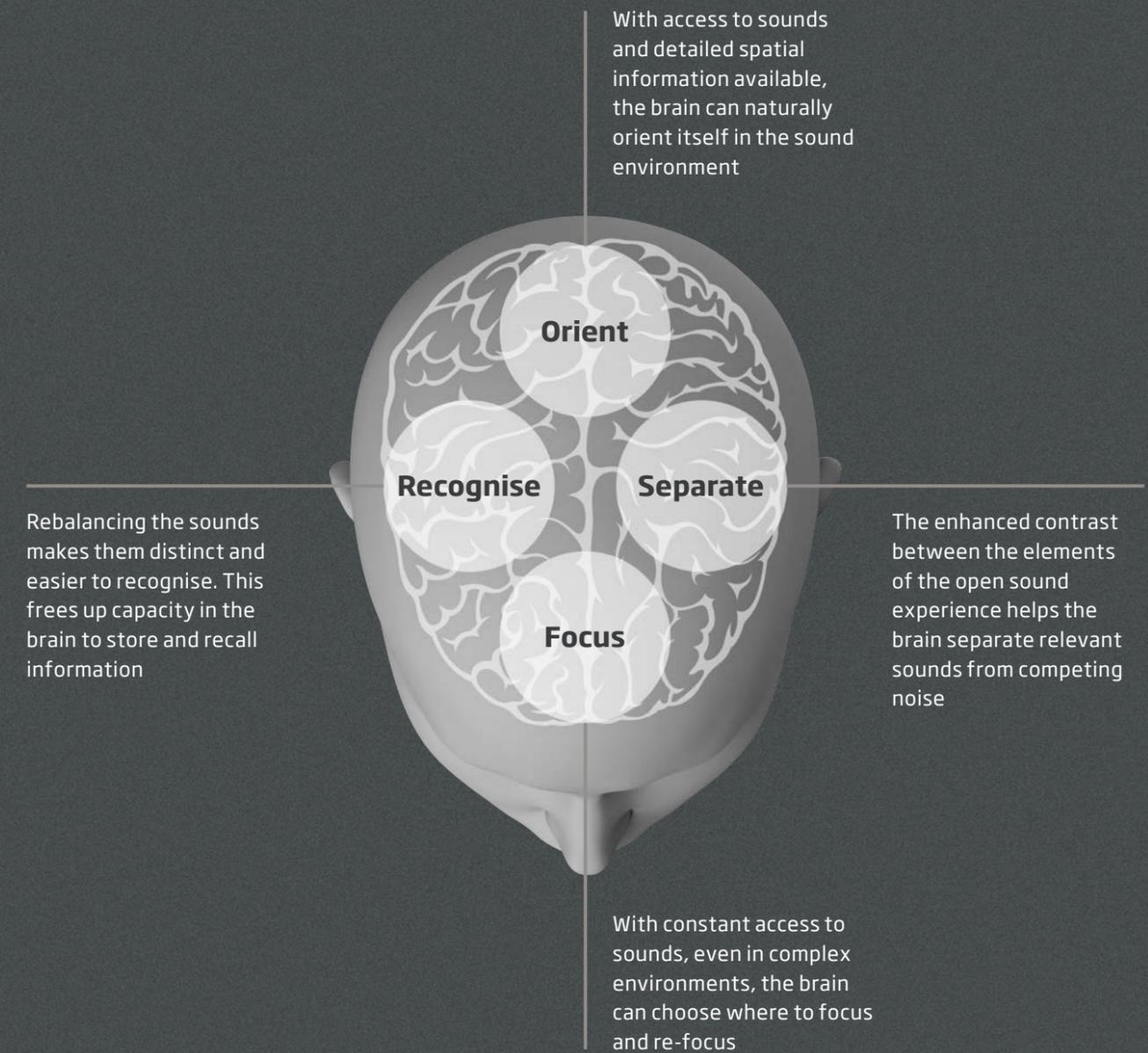
With this breakthrough support, users are better able to locate single sounds and make more accurate spatial sense of the surroundings.

Oticon Opn

Proven to **make it easier on the brain**



A true BrainHearing™ solution



We can provide the brain with substantial help in noisy sound environments

Oticon Opn provides the brain with better conditions to perform, enabling it to understand speech without restricting access to the rest of the sound environment. This means it can more easily focus on the most interesting sounds.



This BrainHearing approach opens up the sound environment to make sure all elements are continuously accessible. In doing so, users are able to switch attention quickly if something important or interesting occurs. By helping the brain make sense of sound, users will ultimately be more in control.

A reduced load on the brain enables users to **remember more**

The open sound experience makes it easier to listen to multiple speakers at the same time in challenging environments.

Through proven research methods we can document that users are less exhausted from trying to understand what is going on when wearing Oticon Opn, ultimately leaving them with a **20% reduction in listening effort** and consequently more energy.

This actually ensures that users **remember 20% more** of what is being said in typical environments for conversation. Additionally, brain capacity is released to actively reflect and respond, rather than being used trying to understand what is being said.

20%

less listening effort - reducing the load on the brain in noisy environments*

20%

more capacity to remember - freeing up mental resources, enabling the user to recall more in noisy environments**



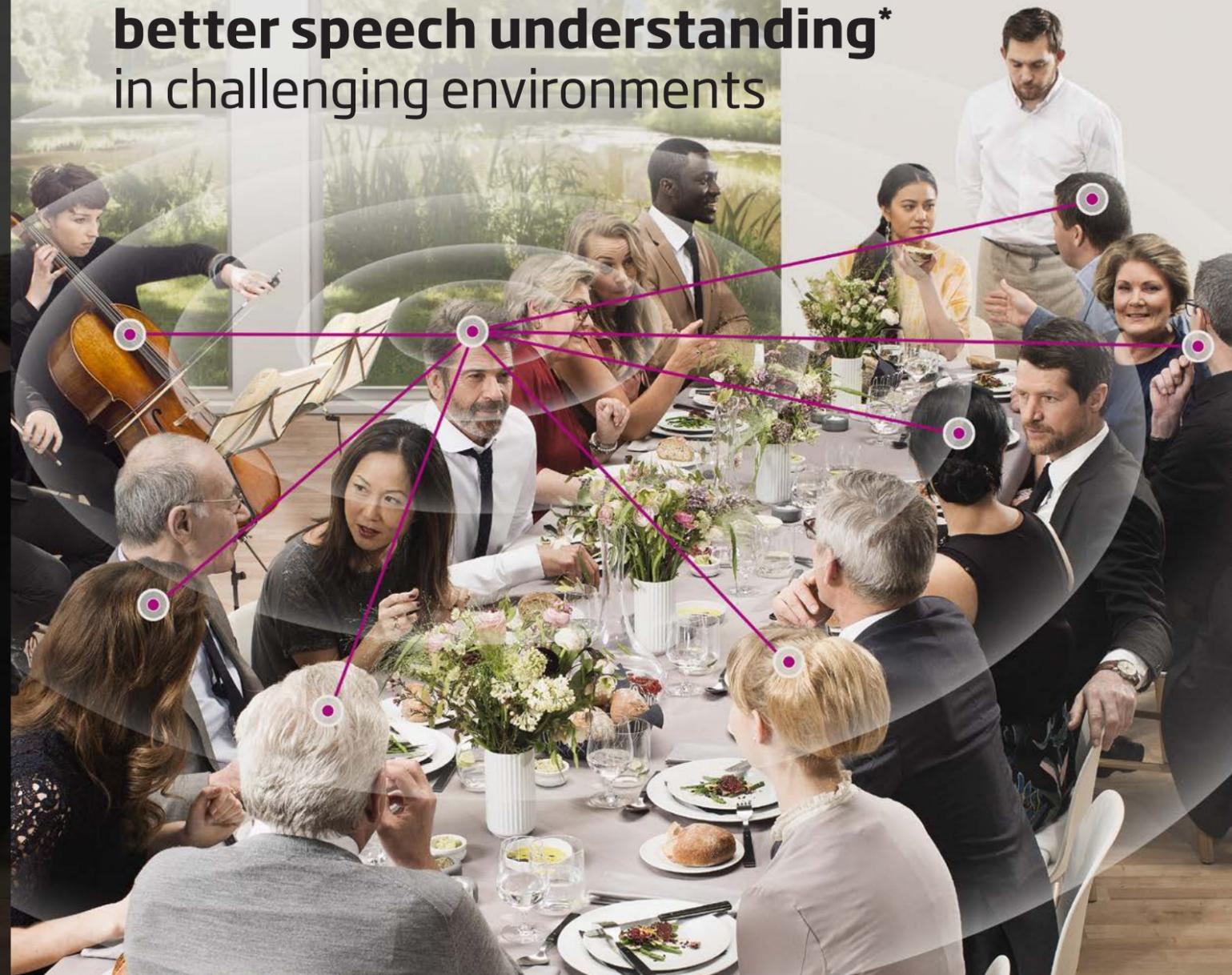
Until now, **directionality** has been the only way to provide better speech understanding



To support speech understanding in noisy conditions conventional technology's only solution is to apply narrow directionality in front of the listener. The listener can then hear the person talking, but surrounding sounds are strongly suppressed.

Narrow directionality dictates the focus of this restricted and unnatural sound experience, while the limited perspective means the listener must remain steady in order not to compromise speech understanding.

With Oticon Opn users get both an **open sound experience and 30% better speech understanding*** in challenging environments



Oticon Opn does not create a narrowed and artificial listening experience. Instead, the OpenSound Navigator adjusts the level of the surrounding sounds and removes excessive noise extremely quickly - including noise coming from the same direction as the speech.

As well as providing a clear speech signal, this approach makes it easier for the brain to handle complex environments. The result is 30% better speech understanding, while continuous access to the surrounding sounds provides a more natural listening experience.

30%

better speech understanding - even in the most noisy environments, without suppressing surrounding sounds through narrow directionality

For the first time ever, a hearing aid with **two communication systems**

– one for binaural processing and one for streamer-free connectivity



Introducing uncompromising **TwinLink™** communication technology

As we never compromise on delivering the best audiology, Oticon Opn is the first hearing aid featuring two dedicated communication systems:

- One for outstanding binaural processing
- One for connectivity with devices

TwinLink communication is delivered without compromising binaural capabilities, battery consumption and size, and is enabled by Oticon's own, purpose-built platform technology.



Spatial Sound LX - Near-Field Binaural Communication

- Faster and better binaural processing through more than a 200% increase in communication capacity
- Richer and more accurate spatial sound experience
- Supports the brain in orienting, enabling users to precisely locate sounds

Connectivity with devices - 2.4 GHz

- Powerful 2.4 GHz direct streaming
- Hassle-free connectivity with devices
- Made for iPhone® hearing aid



Open up and connect to the world



On the go

Oticon Opn provides seamless and easy connectivity with smartphones by turning the hearing aids into a superior quality headset.



Full control with a smartphone

Control Oticon Opn hearing aids with our intuitive and easy-to-use Oticon ON App.



At home

Oticon Opn hearing aids come with hassle-free wireless connection to devices used in everyday life, such as radios, TVs, laptops and many more - without using a streamer around the neck.

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The world's first Internet-connected hearing aid

Open up to a world of endless connectivity possibilities



Connect to your smart devices

Connect to your home security system



Connect to kitchen devices

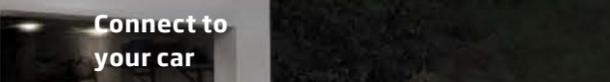


Connect to your TV, radio and game console

Connect to electricity and thermostat controllers



Connect to your car



Through a unique Oticon cloud solution, Oticon Opln can be linked to the If This Then That (IFTTT) network. This allows users to connect to and control an endless range of devices used in everyday life.

Imagine, for instance that hearing aids are able to notify users when an email is received, turn the home alarm

system on and off or inform when someone is at the front door - all of this is possible with Oticon Opln.

Oticon has joined the IFTTT community and invites people to go to on.oticon.com to explore the endless possibilities available when connecting Oticon Opln.

Oticon Opn

Making it possible to follow multiple speakers in complex listening environments

- The first hearing aid proven to make it easier on the brain
- The world's first TwinLink technology
- Made for iPhone and direct streaming connectivity



New small, discreet miniRITE: Oticon Opn is available in a sleek and modern miniRITE that sits discreetly on the ear, offering a wealth of new features and functionalities.



OpenSound Navigator™

Less stress. Remember more. Better hearing



Spatial Sound™ LX

Locate, follow and shift focus to the sounds you want to hear



YouMatic™ LX

Tailors OpenSound Navigator to individual needs and preferences



Speech Guard™ LX

Improves speech understanding in noisy environments so you can follow and engage in conversations



Soft Speech Booster LX

Improves soft speech understanding up to 20% - without turning up the volume



Clear Dynamics

Better sound quality with less distortion in loud environments



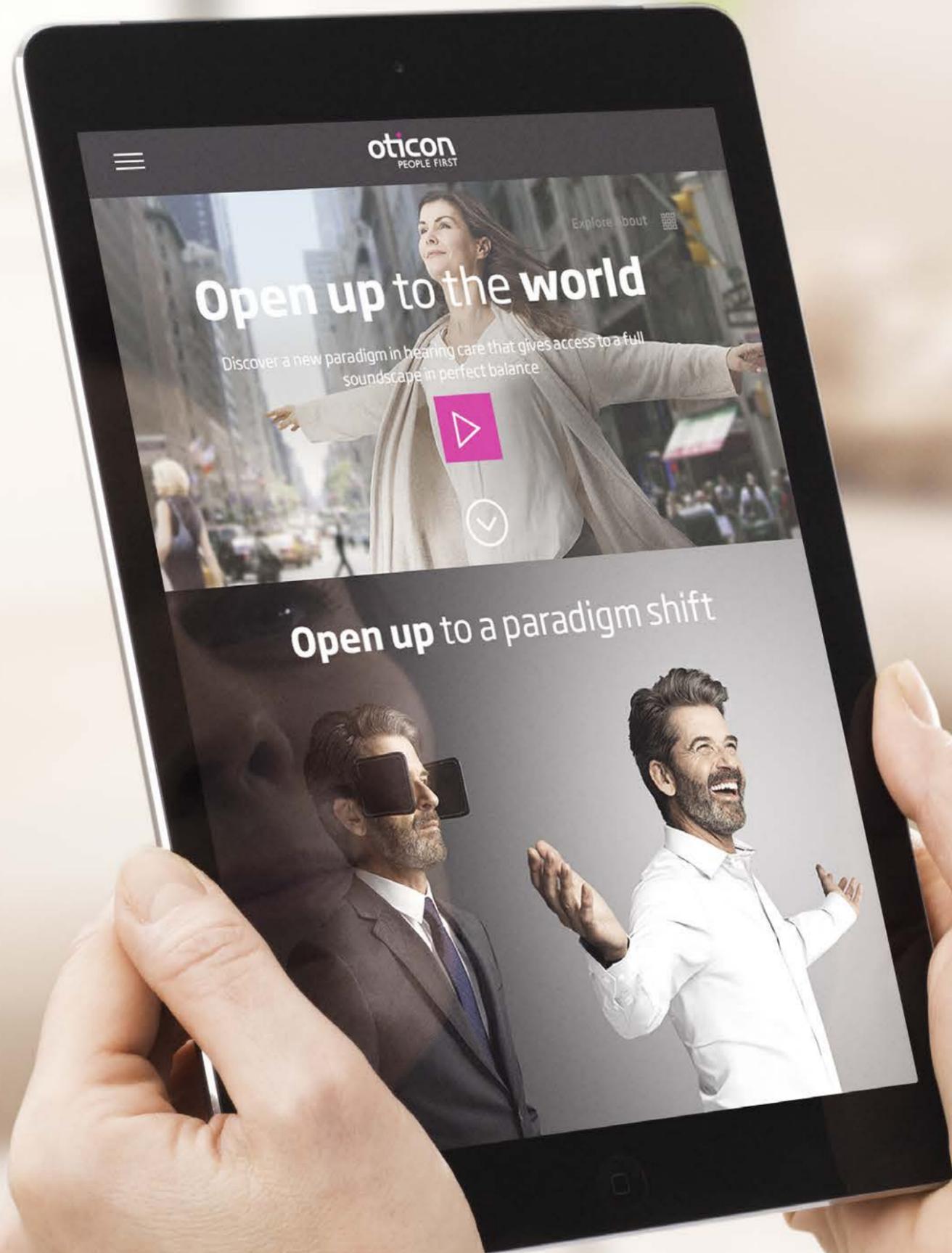
Wind Noise Management

Optimises conditions for better speech understanding - even in situations with wind noise



Feedback shield LX

With the new dual-microphone feedback system, feedback is eliminated rapidly and effectively



oticon
PEOPLE FIRST

Open up to the world

Discover a new paradigm in hearing care that gives access to a full soundscape in perfect balance



Open up to a paradigm shift



Open up for more information

oticon.global/opn

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