

## Signia Nx hearing aid technology sets new standards in natural sound and spontaneous acceptance

- **Hearing aid wearers experience the most natural own voice thanks to revolutionary Own Voice Processing**
- **Ultra HD e2e and *Bluetooth*®<sup>1</sup> offer uncompromised hearing performance and seamless connectivity with direct streaming in one device**
- **TeleCare 3.0 empowers hearing care professionals to offer online appointments with full live remote tuning**

At the 62<sup>th</sup> International Congress of Hearing Aid Acousticians in Nuremberg, Germany, audiology technology leader Sivantos today presented its next generation Signia hearing aid technology: Signia Nx™. The technology is set to improve spontaneous acceptance of own voice by 75 percent of dissatisfied hearing aid wearers<sup>2</sup>. With its introduction, Signia Nx hearing aids become the world's first that process the wearer's own voice completely independently from the remaining soundscape, including other people's voices. This results in wearers perceiving their own voice as natural while also hearing the sounds of their surroundings appropriately amplified. Signia Nx' patented Own Voice Processing (OVP™), powered by the new chip technology, makes this possible.

The Signia Nx hearing aid generation also enhances connectivity and streaming capabilities thanks to its Ultra HD e2e and *Bluetooth*® wireless technologies. Hearing care professionals (HCPs) and their patients will further benefit from Signia TeleCare™ 3.0, which empowers HCPs to conduct online appointments and remotely fine-tune their patients' hearing aids.

### **A particular challenge: the sound of the own voice**

One of the greatest challenges facing hearing aid wearers is that their own voice sounds unnatural due to gain. Many hearing aid wearers acknowledge that they are dissatisfied with how their voice sounds. This is particularly difficult for first-time wearers or those with mild or moderate hearing loss who complain that their voice sounds loud and unfamiliar. Up until now, HCPs have learned to accept this problem as the norm and their only recourse previously was to reduce gain, which negatively affects overall audibility, and open the venting, which reduces speech understanding in noise.

### **A smart solution: dual processing and top-notch-classification**

Building upon the success of its primax™ platform, dual processing has been developed – of the own voice on the one hand and the remaining soundscape on the other – a key feature of the new Signia Nx chip technology. The acronym Nx stands for “natural experience,” referring to the natural sound quality the platform offers.

The chip’s dual processing capability helps replicate natural hearing behavior by dynamically scanning and processing the wearer’s own voice through patented OVP while simultaneously processing the remaining soundscape separately. As part of this process, the new technology offers three-dimensional classification in detecting acoustic changes, movements, and the wearer’s own voice. This key capability steers the automatic orchestration of the hearing aid features to meet the wearer’s needs in each specific situation. Signia Nx hearing aids offer users a new level of spatial awareness, precise localization and crystal-clear sound in all environments, no matter how loud.

### **A successful symbiosis: Ultra HD e2e and *Bluetooth*®**

While many hearing aid wearers demand seamless connectivity, this should not be at the expense of overall hearing performance and sound quality. That is why the Signia Nx platform delivers the energy-efficient wireless technology Ultra HD e2e, the enhanced continuous binaural link that goes beyond synchronization to fully exchange data and acoustic information between the left and right hearing aid. This leading technology enables OVP and better-than-normal hearing in difficult listening environments<sup>3</sup>.

Signia Nx devices' *Bluetooth*® capabilities offer data and audio streaming from both smartphones and TV. *Bluetooth*® further drives precision hearing by leveraging smartphone motion sensors, tracking hearing activity, and facilitating full live remote tuning. The Signia Nx technology also features a latest antenna design, for example an antenna laser-cut along the body of the Signia Pure 312 Nx hearing aid, making it the smallest device with OVP and direct streaming.

Signia Nx's chip technology rounds out the platform's connectivity capabilities with the myControl™ app, which offers remote control with 360° microphone steering, relays motion sensor data, and displays noise exposure and voice activity, which are indicators of hearing health. And with an additional system, Signia TeleLink, the wearer can control the hearing aids remotely even when *Bluetooth*® is not available via smartphone, for example during airplane mode.

### **A wide-ranging service: TeleCare 3.0**

With TeleCare 3.0 HCPs can proactively address the needs of their patients during the trial period with Signia Nx hearing aids. This unique service package offers online appointments via video calls, giving patients instant feedback and support after the first fitting at the practice. Using the latest version of Connexx™ programming software, HCPs can even perform full live remote tuning. As the adjustments can take place in the most natural environments of patients' lives, such as in the living room with the TV on or even in the car while someone else is driving, the hearing aids can be better adjusted to the patients' individual needs.

The award-winning myHearing app<sup>4</sup> from Signia transmits all remote adjustments to the hearing aids via the patient's iOS or Android smartphone. These real time fittings, which are based on both patients' subjective feedback and objective acoustic information collected by the hearing aids, keep trials on track while wearers go about their daily lives without having to travel to and from the HCP's practice for fine-tuning.

### **The new multi-talents: Pure 312 Nx, Pure 13 Nx, Motion Nx**

The Signia Nx portfolio starts with two delicate receiver-in-canal models – Pure 312 Nx and Pure 13 Nx – and with a slim behind-the-ear device Motion 13 Nx.

They offer their wearers all the benefits of the new technology: replicated natural sound of own voice, excellent speech understanding, true-to-life spatial awareness,

comprehensive connectivity with direct streaming and the HCP with TeleCare always at their side. The new, elegant hearing aids are available from November in the three performance levels 7Nx, 5Nx, 3Nx.

For more information: [www.signia-pro.com/signia-nx](http://www.signia-pro.com/signia-nx)

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**Press images** - available for download at: [www.sivantos.com/en/press](http://www.sivantos.com/en/press)



The new Signia Nx hearing aids are the world's first to replicate the natural sound of the wearer's voice thanks to patented dual processing.

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The elegant Signia Pure 312 Nx is the smallest hearing aid with Own Voice Processing, direct streaming and full live remote tuning thanks to its unique laser-cut *Bluetooth*® antenna.

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TeleCare video call option  
CareChat offers a comfortable  
alternative to on-site appointments.

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Using the myHearing app, the  
hearing aid wearer can contact his  
or her hearing care professional  
and communicate questions or  
requests.

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## About Sivantos Group

The business operations of the former Siemens AG hearing aid division have been combined into the Sivantos Group since early 2015. Sivantos can look back on almost 140 years of German engineering and countless global innovations. Today Sivantos is one of the leading hearing aid manufacturers worldwide. With its more than 5,000 employees, the group recorded revenues of 933 million euros in the fiscal year 2015/2016 and an operating profit (Adj. EBITDA) of 221 million euros. Sivantos' international sales organization supplies hearing care specialists and sales partners in more than 120 countries. Particularly high value is placed on product development. Sivantos aims to become the market leader in the coming years with its brands Signia, Siemens, Audio Service, Rexton, A&M, HearUSA and audibene. The owners of Sivantos are the anchor investors EQT along with the Strüngmann family as a co-investor. Sivantos GmbH is a brand license holder of Siemens AG. More information can be found at [www.sivantos.com](http://www.sivantos.com)

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<sup>2</sup>2017 "First Fit Study" conducted at Hörzentrum Oldenburg examining the effect of own voice processing on spontaneous acceptance after first fit of hearing aids. More: [www.signia-pro.com/first-fit-study](http://www.signia-pro.com/first-fit-study)

<sup>3</sup>Two clinical studies have shown that binax provides better than normal hearing in certain demanding environments (University of Northern Colorado, 2014; Oldenburg Hörzentrum, 2013): Speech Reception Thresholds (SRT) in cocktail-party situations improved up to 2.9 dB for wearers with mild to moderate hearing loss using Carat binax or Pure binax hearing aids with narrow directionality, compared to people with normal hearing.

<sup>4</sup>CES Innovation Awards 2017 Honoree

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