



William Demant



# Management Presentation AudiologyNOW! 2017

6 April 2017

Søren Nielsen, President & CEO  
Jes Olsen, President of Oticon Medical



# Agenda

- Management
- General update
- Hearing Devices
- Hearing Implants
- Diagnostic Instruments
- Q&A

William Demant /



# Management



# Søren Nielsen

President & CEO of William Demant Holding as of 1 April 2017

- Executive Board consists of Søren Nielsen and René Schneider (CFO)
- Continues as President of Oticon

## Curriculum vitae

- Born in 1970
- M.Sc. in Industrial Management and Product Development, Technical University of Denmark (DTU)
- COO and Deputy CEO since 2015
- President of Oticon since 2008
- Employed with William Demant since 1995

## Board positions

- Sennheiser Communications (board member)



# Executive Board and Management

High seniority and  
lots of industry insights ....



Søren Nielsen  
President & CEO



René Schneider  
CFO



Arne Boye Nielsen  
Diagnostics



Niels Wagner  
Retail



Svend Thomsen  
Finance

William Demant



# General update



# Highlights 2016

**13%**

Strong revenue growth of 13% with organic growth of 6%



Oticon Opn and retail activities drove strong growth



US retail and Hearing Implants performed below expectations



Growth in Diagnostic Instruments in line with estimated market growth



Execution on strategic initiatives on track

**12%**

EBIT increased by 12% to a record-high DKK 2,130 million before restructuring costs

# Outlook 2017

We expect a unit growth rate of 4-6% with a low, single-digit decline in the market's average wholesale price due to competition and possible mix effects. In terms of value, we thus expect the wholesale market to grow by 1-3% in 2017 as was also the case in 2016.

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We expect to generate growth in sales in all the Group's three business activities: Hearing Devices, Hearing Implants and Diagnostic Instruments.

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Based on exchange rates in early 2017 and including the impact of exchange rate hedging, we expect a positive exchange rate impact on revenue of around 1% in 2017. Acquisitions made in 2016 will also impact consolidated revenue by approximately 1% in 2017.

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We aim at a target gearing multiple of 1.5-2.0x measured as net interest-bearing debt (NIBD) relative to EBITDA.

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**Operating profit (EBIT) of DKK 2.2-2.5 billion before the announced restructuring costs of around DKK 200 million.**



A blue hearing aid device is shown against a dark blue background. The device has a curved, ergonomic shape. A clear, flexible tube is attached to the side, leading to a small, dark, circular component, likely a microphone or a speaker. The device is positioned diagonally across the frame. A semi-transparent grey horizontal band is overlaid across the middle of the image, containing the text "Hearing Devices".

# Hearing Devices

# Oticon Opn™

The open sound  
paradigm  
continues to  
expand



# Opening up the world

“It has actually changed my life”  
Biddy Stevenson, hearing aid user

“We’re finally able to offer our patients a truly life-changing experience”  
Paula Schwartz, hearing care professional

“Rather than just hearing what’s right in front, I can now hear everything going on around me”  
Camilla Terkildsen, hearing aid user

# The Open Sound Experience

The result of a winning formula of Oticon technology



 +  = **The open sound experience**

OpenSound Navigator™      Spatial Sound™ LX

# BrainHearing™ support

In 5 key areas



1

Open access  
to all speakers



2

Rapid  
noise reduction



3

Localisation  
of sounds



4

Speech  
clarity



5

A personalised  
listening experience



# Opn™ is now rechargeable!



# Opn miniRITE – Convenient and Easy to Use

Battery life for a full day's use



CONVENIENT

EASY TO USE

REASSURING

UPGRADABLE

# Opn miniRITE – A Powerful Combination

*The only rechargeable hearing aid with an **open sound experience***

*The world's first rechargeable hearing aid with **2.4 GHz** direct streaming*

*Existing Opn install-base can be **retrofitted** to become rechargeable*



***Hybrid battery technology** for maximum flexibility – powered by ZPower*



# Introducing new styles

Even more open sound opportunities



# miniRITE-T

Brand new design

Small and discreet

7 colours

IP 68



# Open up to more power

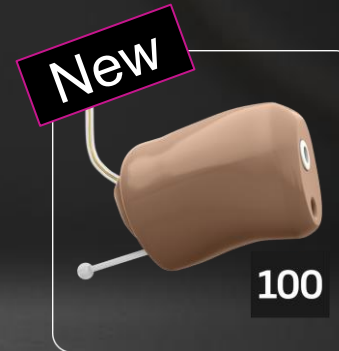
Power options for miniRITE and miniRITE-T

## OTICON | O<sub>p</sub>n

### Speaker 100



### Power Flex mould



# Introducing BTE13 PP

The perfect balance between size, user friendliness and power



# BTE13 PP

A powerful offering for the power user



# Oticon Opn with Speech Rescue™

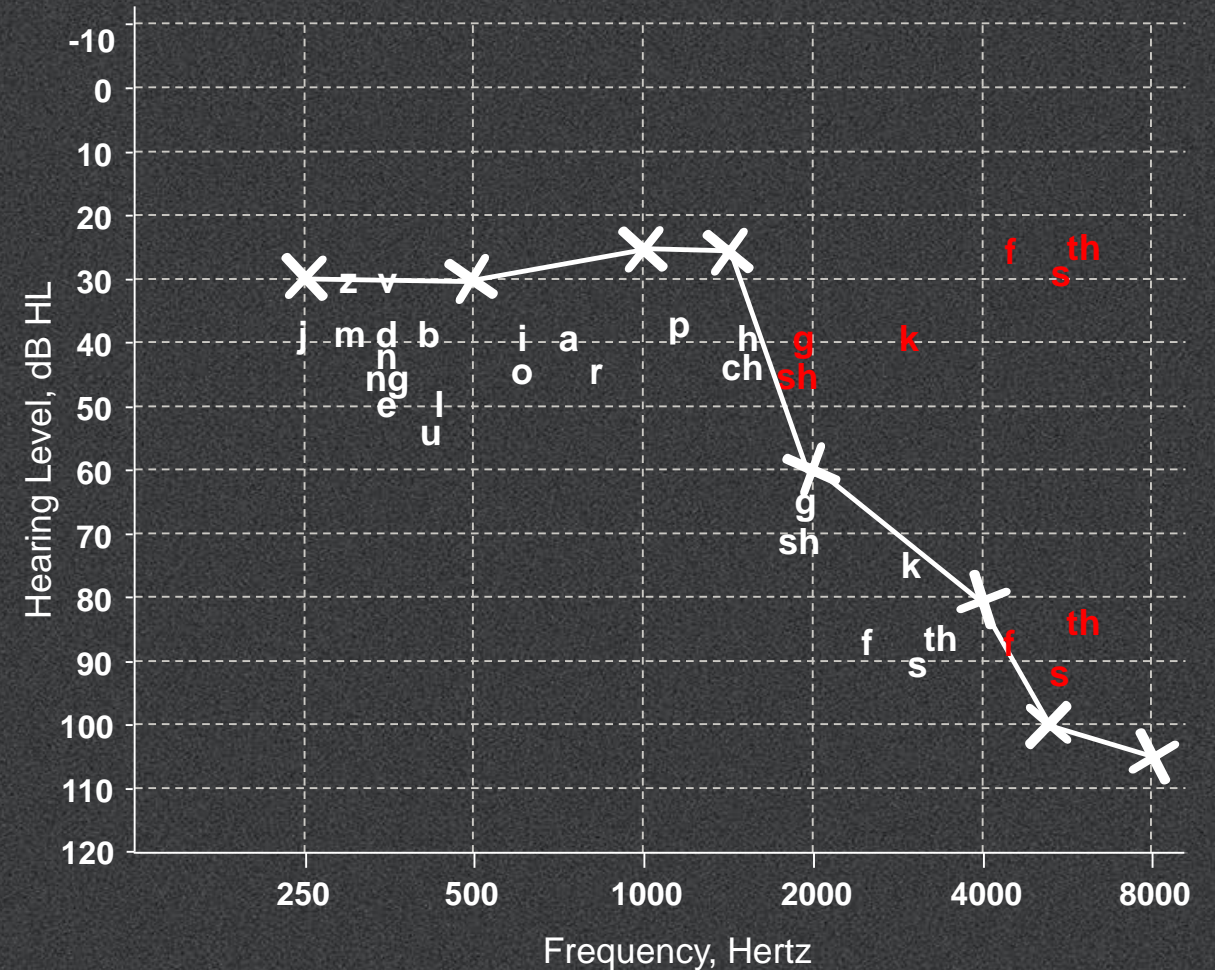
Open sound with high-frequency audibility

Also available to  
existing Opn users

# Frequency lowering with Speech Rescue™

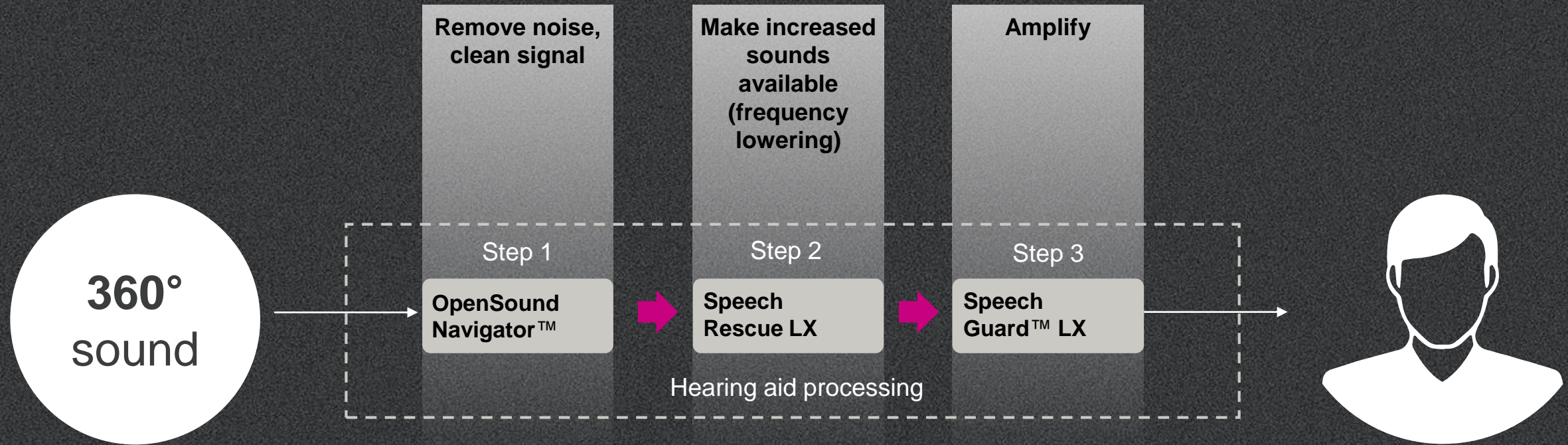
Making increased sounds available

- ▶ Speech has less energy at high frequencies
- ▶ Hearing loss is often larger at high frequencies
- ▶ By taking the high frequency energy and moving it down to frequencies where there is less hearing loss – it is easier to make it audible



# Speech Rescue LX and other features

A three-step process to deliver the best audibility

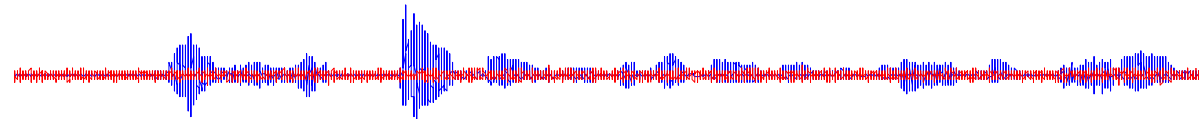


Speech Rescue LX is more effective with OpenSound Navigator  
**because it receives a better signal**

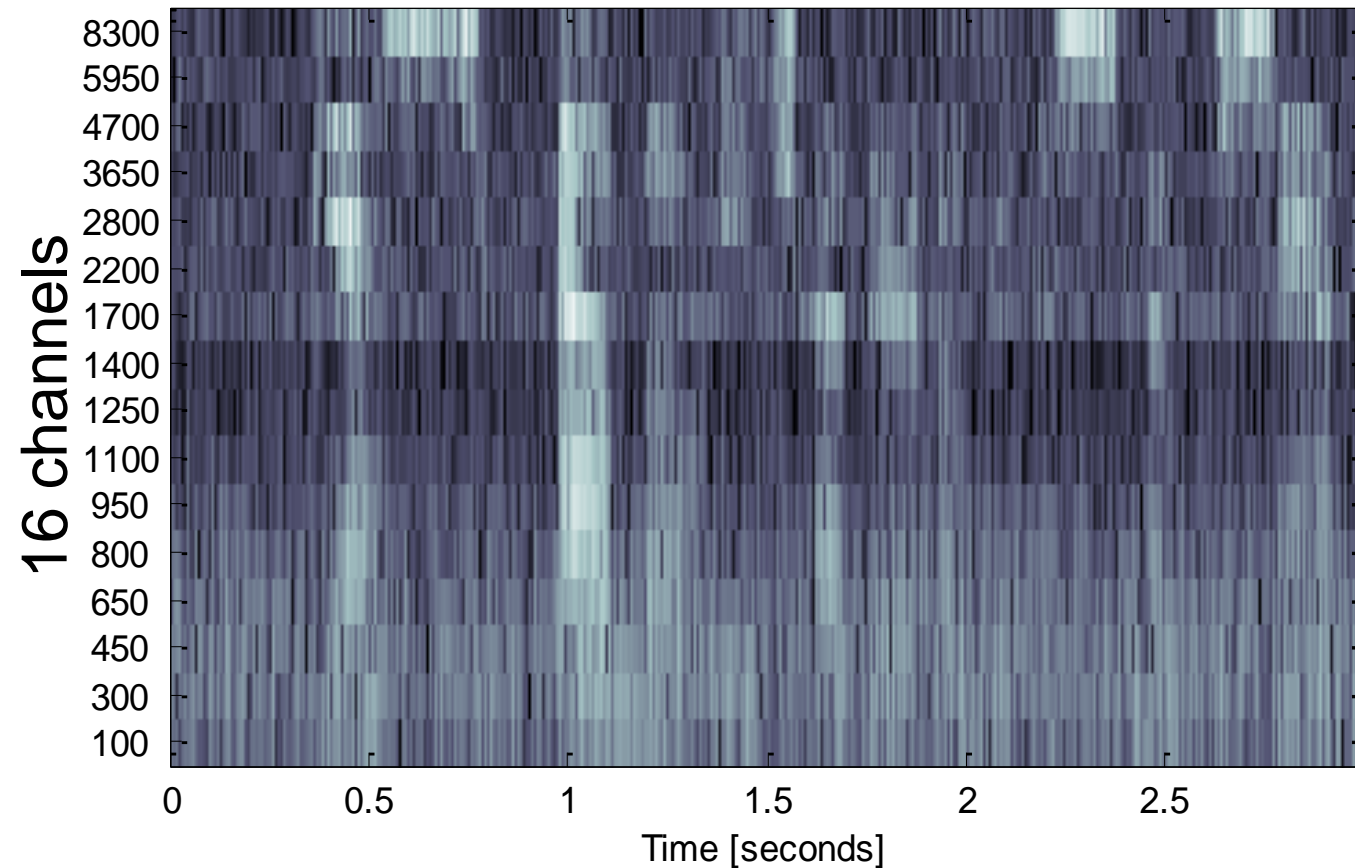


# Speech Rescue with OpenSound Navigator

guests el - bow each other over the smoked salmon

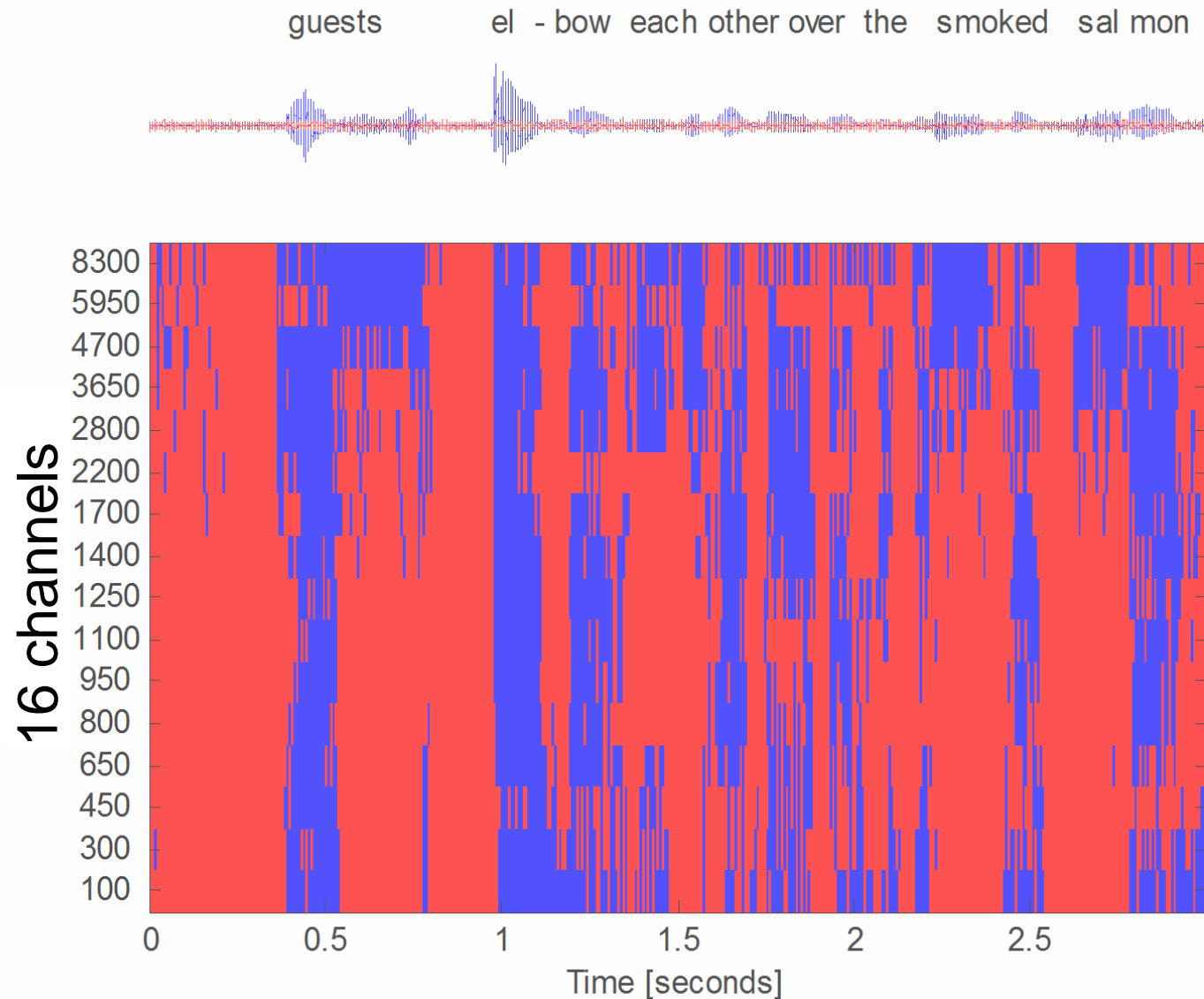


- ▶ Time/frequency representation of speech in noise



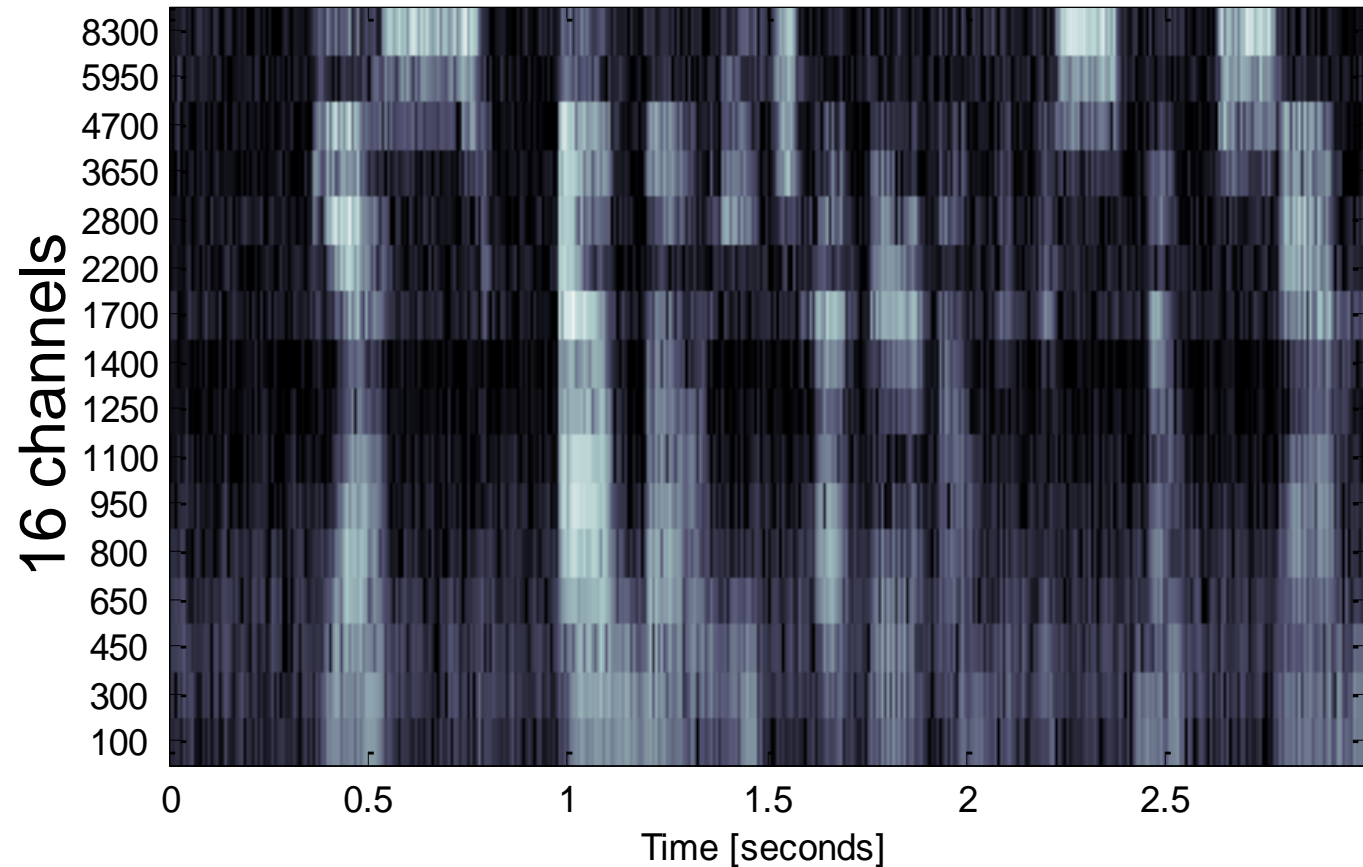
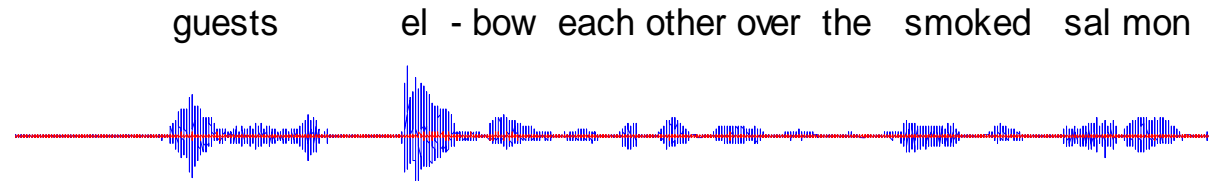
# Speech Rescue with OpenSound Navigator

- ▶ Analysis and subsequent labelling of speech and noise in OpenSound Navigator



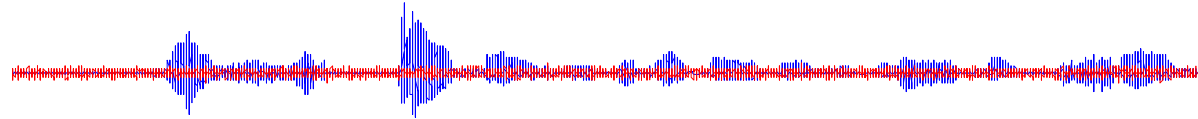
# Speech Rescue with OpenSound Navigator

- ▶ Speech in noise signal after removal of detected noise

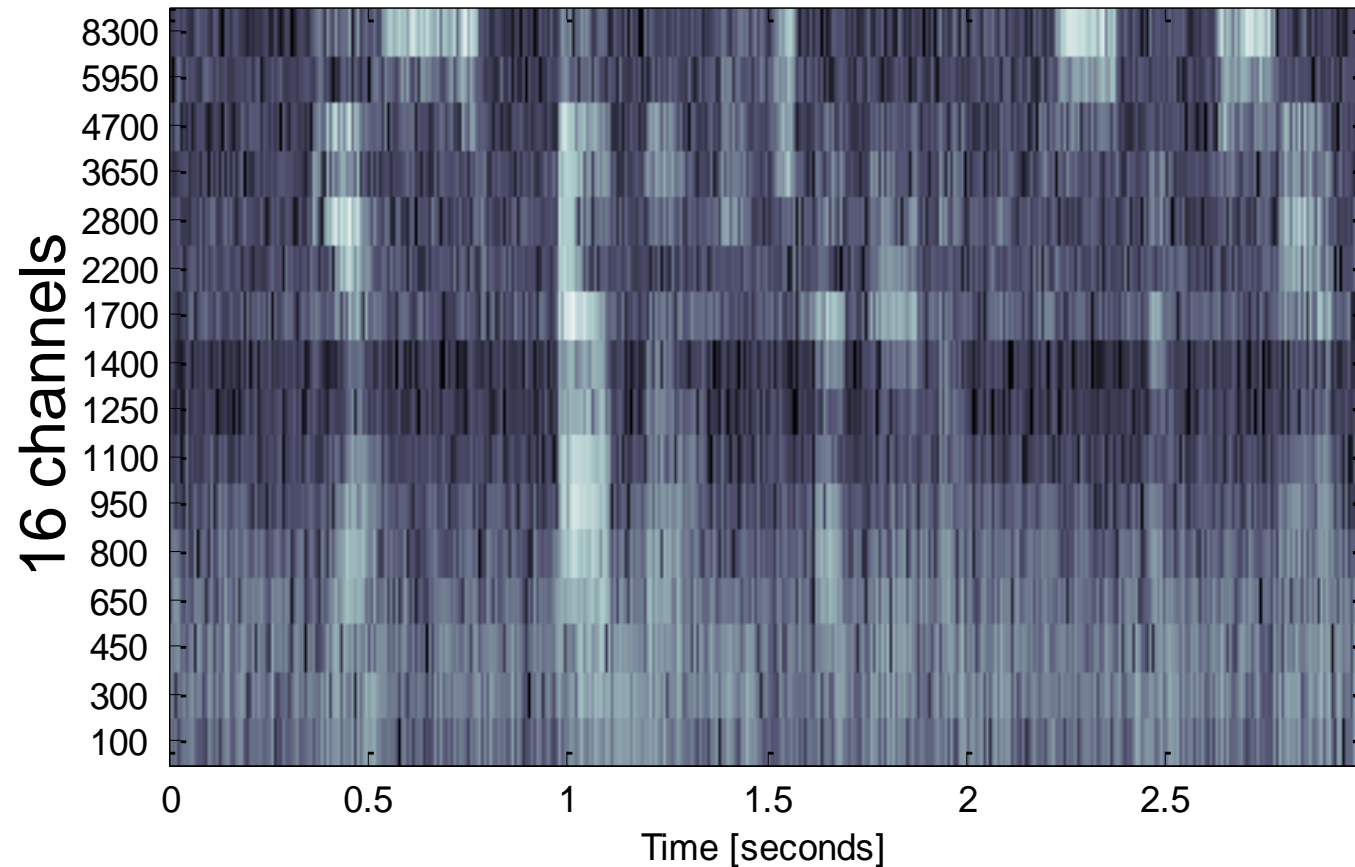


# Speech Rescue with OpenSound Navigator

guests el - bow each other over the smoked salmon



- ▶ Comparison to speech in noise signal without OpenSound Navigator



# Oticon Opn with Tinnitus SoundSupport™

A winning combination of tinnitus relief and open sound

Also available to  
existing Opn users

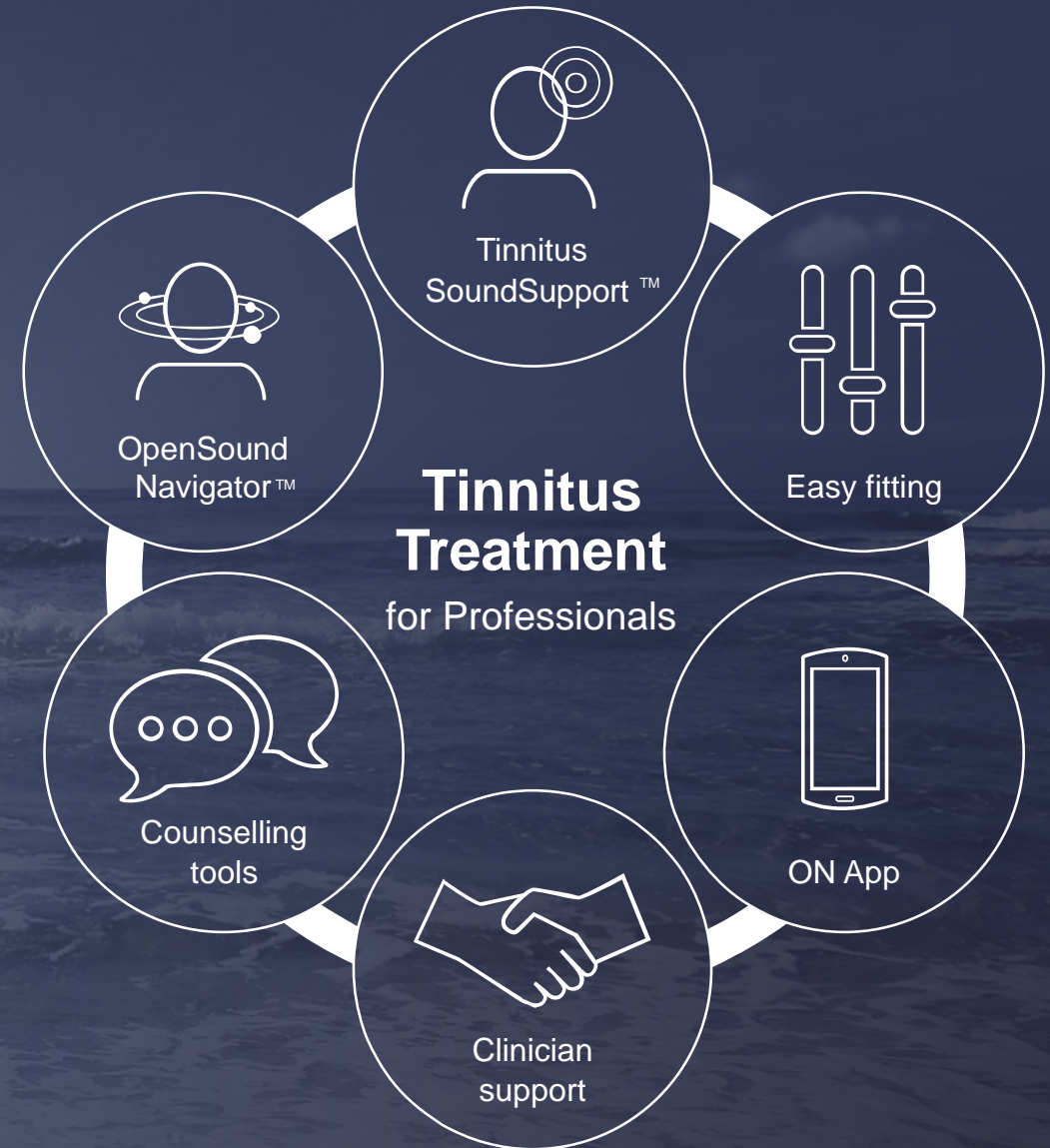
# The complete tinnitus solution

What makes the Oticon solution unique

Opn combination device with  
**Tinnitus SoundSupport**  
and **OpenSound Navigator**

Intuitive and easy  
fitting tool in **Genie 2**

**Counselling and support** tools  
for both clinician and patient



# Opn – now also for teens

- ▶ Introducing Desired Sensation Level (DSL) rationale for **fitting of children and teens**
- ▶ Fits teens with assurance that **best practice guidelines** are followed
- ▶ Confident listening both in **classrooms** and in **complex listening environments** common in a teen's life



# Positive product mix effects from Opn

- ▶ Opn 1 still leads positive product mix effect
  - ▶ Very positive momentum continues
  - ▶ Added to VA contract in November 2016
  - ▶ Still best-selling Opn product
  
- ▶ Opn 2 and 3 also having positive product mix effect
  - ▶ Launched in the upper mid-priced and the mid-priced segments in late November 2016
  - ▶ Now rolled out in all major markets
  - ▶ No material cannibalization on Opn 1



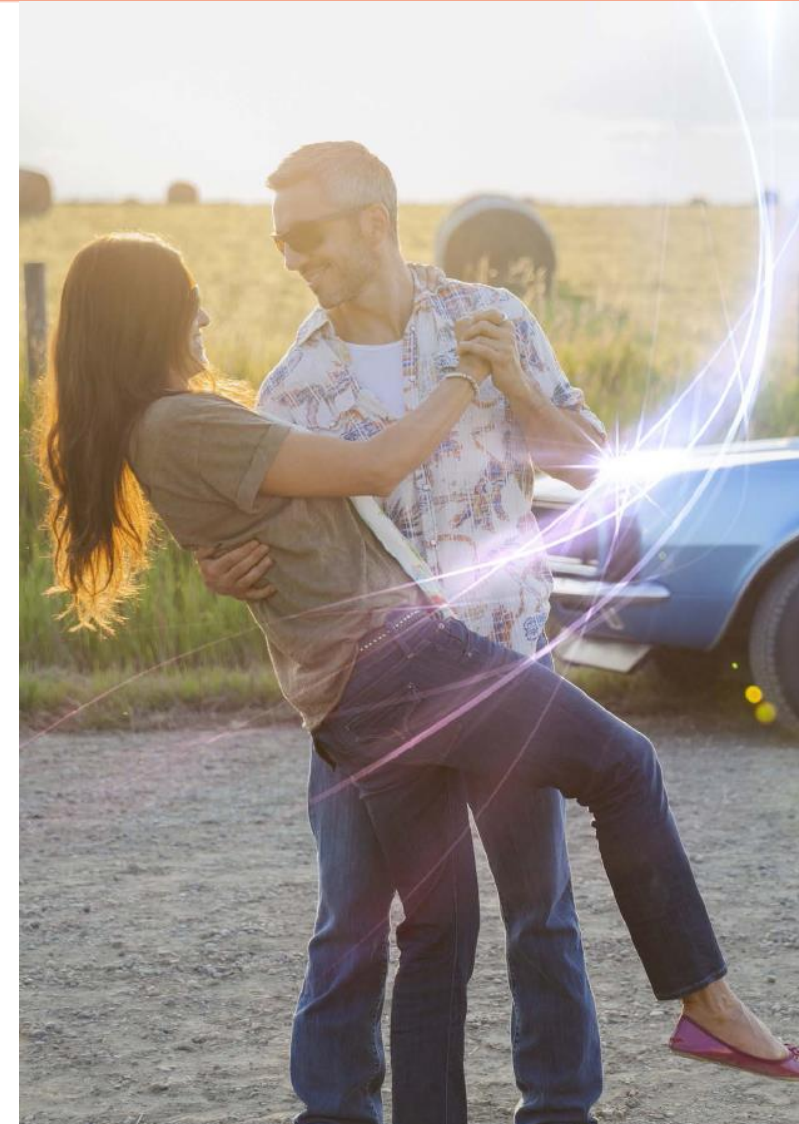
# The open sound paradigm continues to expand

- ▶ Now addressing even larger part of the market with our open sound paradigm
  - ▶ Opn is now a rechargeable solution, including current install-base
  - ▶ BTE13 PP addressing severe to profound hearing losses
  - ▶ Addressing more types of hearing loss profiles with Speech Rescue™ in all styles and price points
  - ▶ Tinnitus treatment feature in all styles and price points
  - ▶ T-coil in ultra compact design
  - ▶ Strong concept for teens
  
- ▶ Available from end of Q2 2017



# Bernafon and Sonic

- Our Bernafon and Sonic brands have driven high volumes
- Weakening of sales to Costco for Bernafon
- Both brands will launch new products by the end of Q2 2017
  - Will be available in different styles and in three price/performance categories



William Demant /

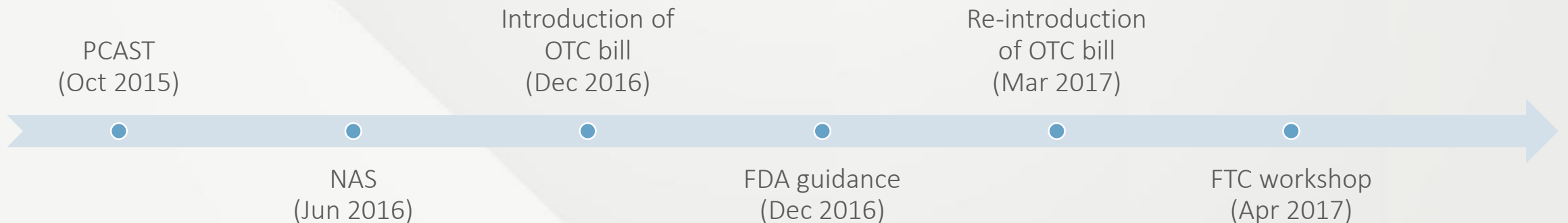


# Selected Topics



# Update on US OTC

- "Over-the-Counter Hearing Aid Act of 2017" (OTC bill) introduced in both chambers of US Congress on 21 March 2017
- There will be a workshop on Hearing Health and Technology on 18 April 2017 hosted by the Federal Trade Commission (FTC)
- We continue to believe that safety and efficacy for the end-user are crucial factors for penetration and satisfaction rates and we support hearing aids, OTC or not, being regulated as medical devices



# Remote assistance/fitting

Connected hearing aids enabling a closer relationship between Hearing Care Professionals (HCP) and end-users

- Remote assistance may come in different forms varying with the type and level of
  - Support
  - Professional involvement
  - Adjustment/fitting possibilities
- Even for remote assistance solutions, direct interaction with a HCP remains key for ensuring trust, professional care and strong outcomes for end-users

Feature	Level of remote assistance	
	Offline	Real-time
Support	Delayed	Real-time
HCP involvement	Indirect interaction	Direct interaction
Adjustment	Fine-tuning of limited range of settings	Adjustment of full range of settings

# Hearing Implants



# Ponto 3 – the world's most powerful family of abutment-level processors



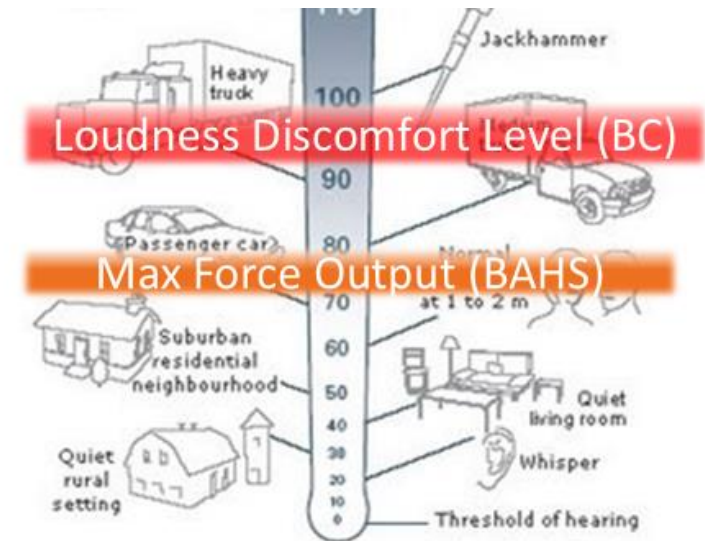
**Ponto 3**  
45 dB HL

**Ponto 3 Power**  
55 dB HL

**Ponto 3 SuperPower**  
65 dB HL

# Ponto 3 – the definition of power

- 1st wave launch in October 2016, Super Power in mid-December
- Continued strong momentum following the launch
- Market being redefined because of Super Power and the strong focus on the need for "direct drive" and more power for best possible outcomes

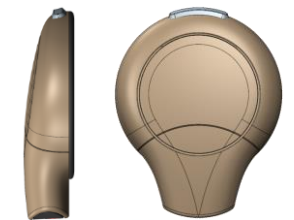
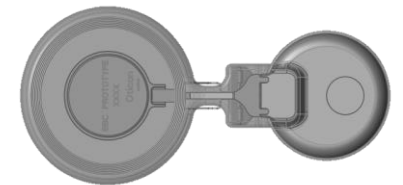




# Direct transmission continues to be the golden standard in bone-anchored hearing systems

Direct drive	Ponto	<ul style="list-style-type: none"><li>• Paediatrics* and adults</li><li>• Conductive and mixed</li><li>• Single-sided deafness</li></ul>
Skin drive	Transcutaneous, magnet	<ul style="list-style-type: none"><li>• Adults</li><li>• Conductive</li></ul>
	Headband or softband	<ul style="list-style-type: none"><li>• Paediatrics before surgery is an option and adults</li><li>• Conductive</li><li>• Testing and before surgery is an option</li></ul>
Direct drive	Transcutaneous, active	<ul style="list-style-type: none"><li>• Paediatrics* and adults</li><li>• Conductive and mixed</li><li>• Single-sided deafness</li></ul>

\* Above the age of 5 years



**oticon**  
MEDICAL

# Neuro Cochlear Implant System



## Neuro One

- Oticon Technology Inside
  - Powerful Inium platform
  - Automatic environment detection
  - Free focus directionality
- Coordinated Adaptive Processing
  - Wide IDR
  - Voice Guard multiband compression
  - Coordinating the full package of advanced features
- Designed For Living
  - Wireless capabilities
  - The safe choice via Implant recognition, battery door lock, self check diagnostics
  - User friendly & comfortable design



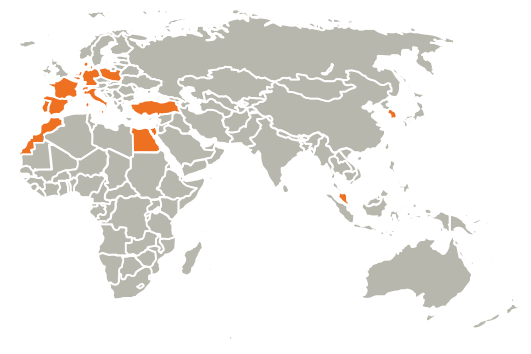
## Neuro Zti

- Ultra Compact Design
  - The smallest surgical footprint
  - Innovative materials
  - Ultra-thin
- Powerful, Future Ready Technology
  - Powerful chip capacity
  - 2nd generation fixation system
  - MRI peace of mind
- Proven Atraumatic Electrode Arrays
  - Proven atraumatic
  - Optimal combination
  - Precision micro-machining

# Neuro – Significant progress through excellent outcomes

## Implanting in more than 80 centers and 18 countries – and growing

- France active from 1st of March 2017
- Brazil active from April 2017
- FDA trial started in January 2017
- Important reference centers
  - MHH Hannover, Germany
  - Rigshospitalet, Denmark
  - Lille University, France
  - World center of hearing Warzaw, Poland



# Neuro – A strong offering complemented by upcoming introductions



Neuro offering	Fair	Good	Excellent
Implant size			X
Surgical aspects			X
Electrode insertion		X	
Power efficiency			X
Stability		X	
Audiological outcomes			X
BTE size (Neuro One)	X		X
BTE design and useability (Neuro One)	X		X
Fitting system (Digimap)	X		X
Fitting efficiency (Digimap)	X		X
Width of product range	X		X

**Upcoming product introductions**

- BTE: Neuro 2
- Fitting: Genie Medical CI

# Comparative data: The latest CI sound processing technology, Bergeron et. al. (2014)\*

- Comparative data between major CI manufacturers from Bergeron et. al. (2014)\*
- Data collected with latest technology for all manufacturers
- Random comparable samples
- 10 OM/Neurelec subjects included for all conditions. Other groups' subjects ranging from 13 to 15 (quiet), 12 to 15 (10dB), 9 to 15 (5dB) and 6 to 9 (0dB)
- Presented at the 13<sup>th</sup> International Conference on Cochlear Implants and Other Implantable Auditory Technologies, Munich, Germany, 2014.

\*Bergeron, F., Hotton, M., Millette, I., Lamothe, J., Bussi eres, R., C ot e, M., Philippon, D. 2014.



## Speech recognition with the most recent technologies from the four major cochlear implant manufacturers; an update

Bergeron F<sup>1,4</sup>, Hotton M<sup>1</sup>, Millette I<sup>2,4</sup>, Lamothe J<sup>3,4</sup>, Bussi eres R<sup>3,4</sup>, C ot e M<sup>3,4</sup>, Philippon D<sup>3,4</sup>,  
<sup>1</sup> Universit e Laval, <sup>2</sup> Institut de r eadaptation en d eficience physique de Qu ebec, <sup>3</sup> CHU de Qu ebec, <sup>4</sup> Quebec Cochlear Implant Program

This study follows a preceding one (Bergeron et al. 2012) where speech recognition abilities were compared between the four major cochlear implant manufacturers in a large cohort of users. At this moment, results showed no significant difference in speech perception between devices in quiet and in different noise conditions. While most devices appeared only slightly disturbed by the presence of a low to moderate noise level, one device appeared significantly more sensitive to a degraded environment. As new devices and/or signal processing have been introduced since the first study, an update of the data has been initiated.

### Methods

#### Participants

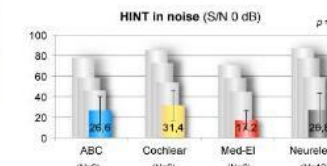
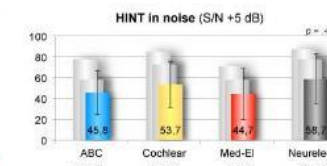
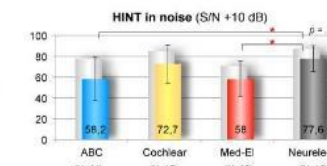
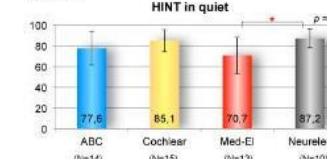
Data was extracted from all patient files featuring the most recent device from each manufacturer, that is 14 Advanced Bionics Naida, 18 Cochlear N6, 15 Med-El Opus 2 and 10 Neurelec Saphyr Neo. Patients with marginal performances (<10% HINT in silence) were considered as outliers and excluded from the database. The following table shows how samples are comparable in terms of age, duration of deafness, prep sentences perception scores in quiet in the best-aided condition and percentage of active electrodes. The Qu ebec test is a recorded 60 sentences test presenting a higher difficulty level than the HINT as three different speakers (male, female and child) are used. All pre-op figures are not significantly different between the 4 samples.

	ABC	Cochlear	Med-EL	Neurelec
Mean age in years (SD) $p = 0.23$	56.9 (13.2)	56.7 (17.8)	56.4 (12.5)	55.4 (12.7)
Mean duration of profound deafness in years (SD) $p = 0.45$	4.2 (4.9)	5.9 (11.9)	7.5 (9.4)	7.0 (11.8)
Mean prep Qu�ebec test (SD) $p = 0.57$	17.4 % (32.2)	23.4% (34.3)	22.3% (23.9)	26.1% (22.6)
Mean % of active electrodes $p = 0.13$	96%	98%	97%	93%

#### Assessments

Users were tested after a three months experience with their device, except for Neurelec users who were tested one month after the most recent upgrade of their processor. Assessments were realised in identical conditions using the HINT test in quiet and in noise with fixed signal to noise ratios of +10, +5 and 0 dB. Noisier conditions were assessed only when scores over 30% were observed in the preceding condition. Thus all tests conditions were not systematically administered to each user. All participants were asked to set the processor on their preferred program in each condition.

### Results



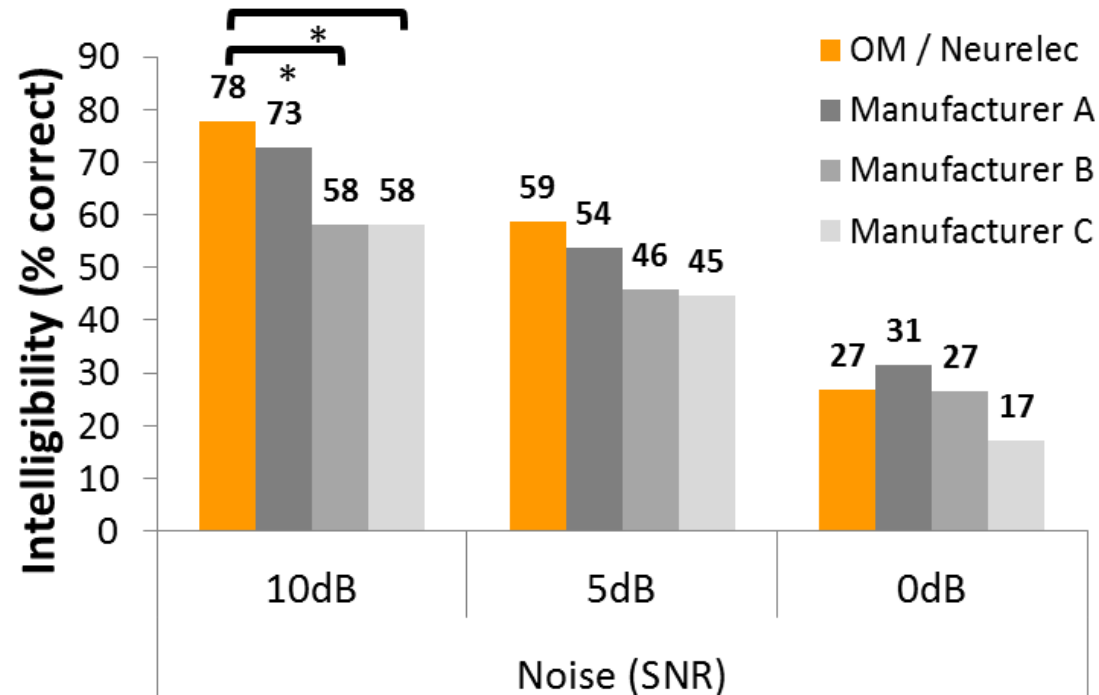
The updated data show that new devices and/or signal processing have introduced changes since the 2012 study. In quiet, mean score with the Neurelec device is significantly better than with the Med-El device. In a +10 S/N setting, mean score with the Neurelec device is better than with AB and Med-El devices. In worse noise conditions, a similar performance is observed among all devices.

Correspondence: francois.bergeron@med.ulaval.ca

# Significantly better results in noise - speech in noise



- Latest CI sound processing technology: In comparative data, Saphyr neo collection showed **significantly better results in noise** 10dB SNR than technology from manufacturers B and C\*



# Medizinische Hochschule Hannover – Study details



*Modified from A. Büchner et al., 2017  
Oticon Medical Scientific Meeting, KBN, Den.*

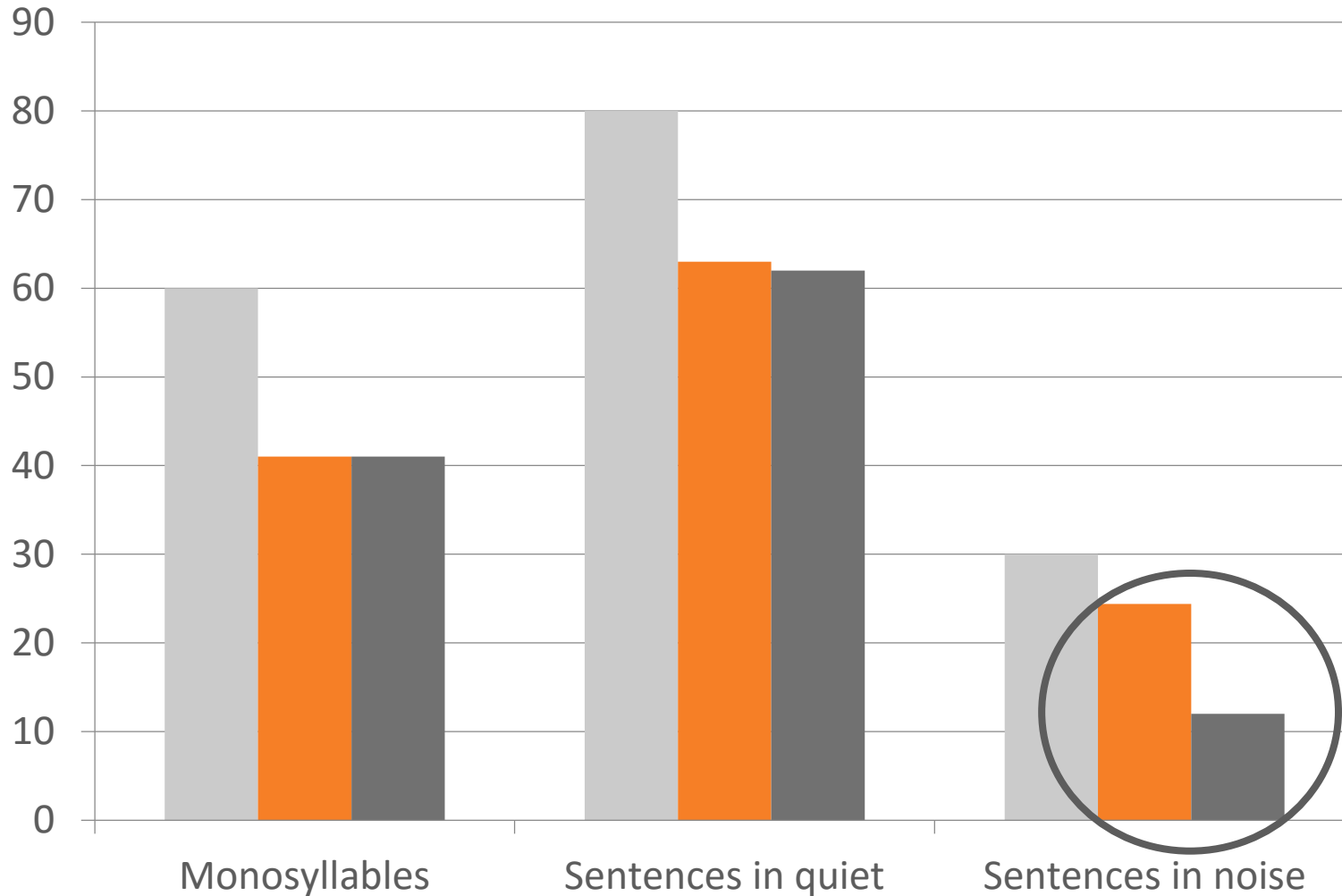
## Neuro patients

- 10 patients
- Age: 64.6 years on average
- Long deprivation duration: 18.2 years
- Postlingual deaf adults, variable etiologies
- Monocentric data collection at 3 to 12 months post Neuro-Zti surgery

## Matched control group

- 174 patients from the MHH CI patient's database matched for:
- Age: 61.7 years on average
- Deprivation duration: 17.4 years
- Variable etiologies, variable CI experience
- Excluding the OM Neuro patients

# Medizinische Hochschule Hannover – Study results



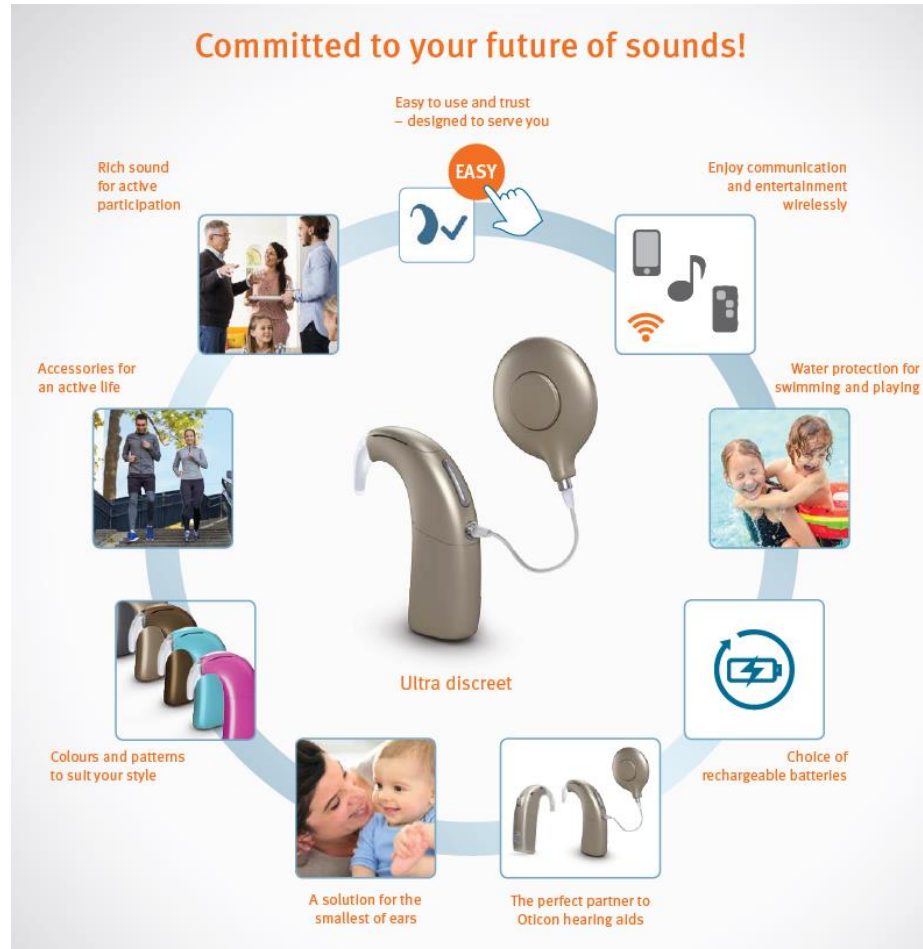
■ N = 480  
Avg. duration of deafness 5.4y  
Newest generation implants  
(Analysis from 2014)

■ N = 10  
Avg. duration of deafness 18.2y  
Avg. age: 64.6y  
Oticon Neuro Zti Implant  
(January 2017)

■ N = 174  
Avg. duration of deafness 17.4y  
Avg. age: 61.7y  
Various Implants w/o Oticon  
(January 2017, matched group)

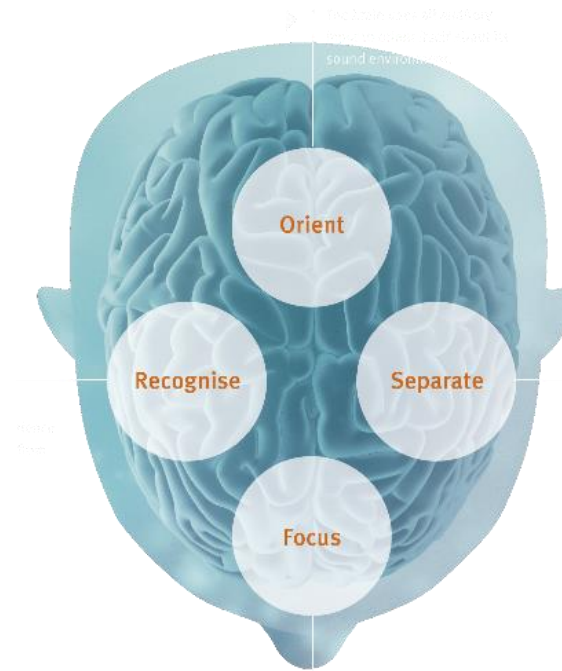



# Completing the plan - creating the most attractive BTE and fitting software ever



# The short to medium term perspective

- What if the outcome data can be replicated for larger and diverse groups of patients?
  - Speech in background noise is the holy grail in CI
  - Speech in background noise is strongly related to listening effort and Brain Hearing
  - For paediatrics listening effort is very likely closely related to learning abilities and general development







A hand holding a blue and white diagnostic instrument, possibly a dental probe or similar tool, positioned over a tablet. The tablet has the brand name 'MICO' visible at the bottom. The instrument has a blue tip and a black cable. The background is a plain, light-colored surface.

# Diagnostic Instruments

# Diagnostic Instruments

- Multi-brand approach with wide range of audiological equipment products

		 Interacoustics				
Audiometers	✓	✓	✓	✓		✓
Impedance	✓	✓	✓			✓
Fitting		✓		✓		
ABR*	✓	✓	✓			
OAE*	✓	✓	✓			
VNG*		✓			✓	

\*Note: ABR: Auditory Brainstem Response; OAE: Otoacoustic Emissions and VNG: Videonystagmography

# New products from Grason-Stadler and Maico

## New touchTymp impedance product from Maico

- Middle ear diagnostics product
- Complements current screening product with additional advanced testing possibilities



## New Pello diagnostic audiometer from Grason-Stadler

- Addressing the mid-level part of the audiometer market



# Interacoustics – 50 years anniversary in 2017

Updated product portfolio within Video Nystamography (VNG) and Otoacoustic Emissions (OAE)

- Micromedical VisualEyes 525 is a new innovative touch screen balance equipment
- High market share in a growing market
- Otoread is a new portable OAE device
- Optimized for accuracy and ease of use



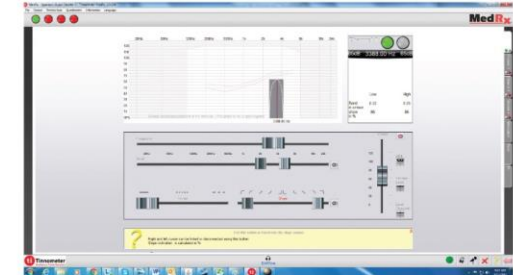

# MedRx Tinnometer

Revolutionary new approach to tinnitus assessment

- First solution of its kind on the market
  - Customized stimulus
  - Precise control of level, shape & frequency
  - Built-in tinnitus reports
- Significantly reducing the time of performing a tinnitus assessment
- Improved accuracy in tinnitus assessment

**Introducing Tinnitus Assessment**

*Break away from the limitations of your audiometer with a revolutionary new tool!*



**ti Tinnometer**  
Revolutionary Tinnitus Assessment

*MedRx introduces the Tinnometer, a revolutionary tool for tinnitus assessment.*

# A strong platform for future growth

... and a vision to make **a life-changing difference** to people living with hearing loss





William Demant / 

# Q&A



# IR contacts



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