

A New Approach to Attacking the Noise Problem

Gabrielle Filips AuD
Government Services Account
Manager – South Central Region



oticon
PEOPLE FIRST



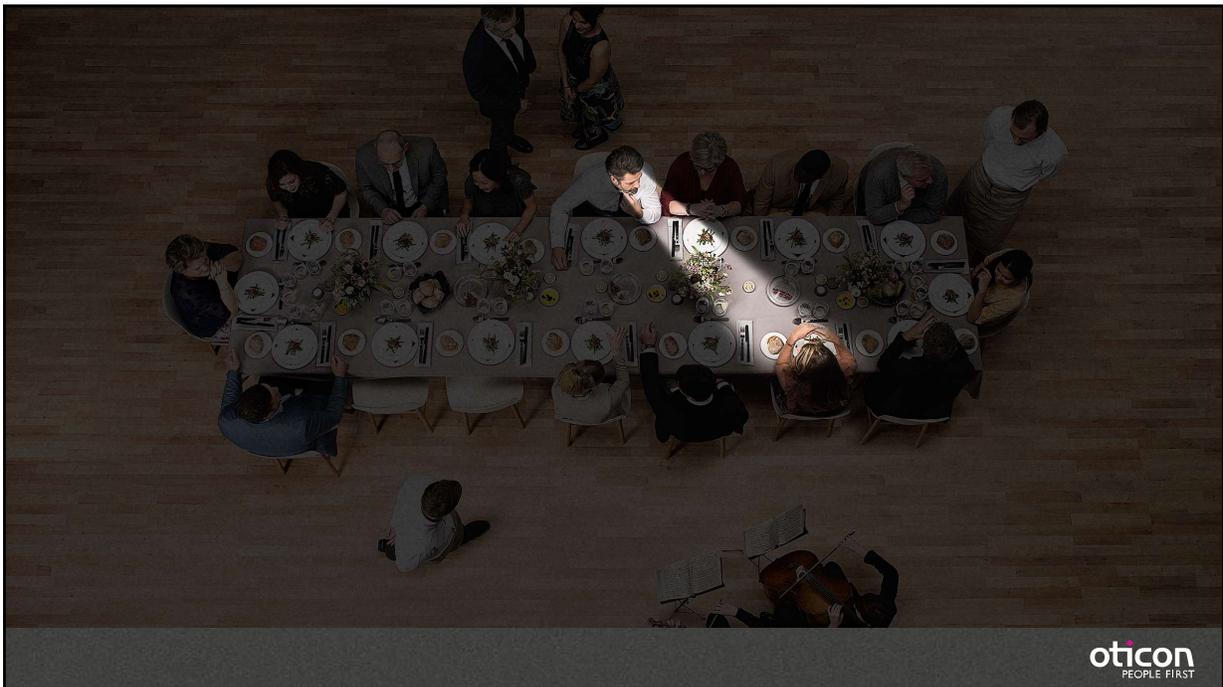
- ▶ Transmitted to you in cooperation with our colleagues at AudiologyOnline.
- ▶ If you are experiencing audio or visual difficulties, please contact AudiologyOnline (800-753-2160)





OpenSound Navigator™

oticon
PEOPLE FIRST



The Oticon Approach



oticon
PEOPLE FIRST

Dealing with Complex Environments



oticon
PEOPLE FIRST



What is OpenSound Navigator™?



What Makes OpenSound Navigator™ Better?

- ▶ 1. Very Powerful Engine
- ▶ 2. Very Unique and Smart Signal Processing Ideas



How Powerful?

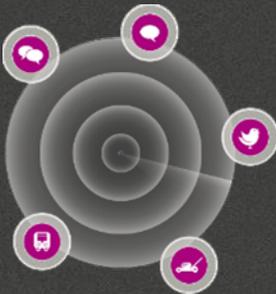
- ▶ 32 channel directionality updating 125x/sec
 - ▶ While identifying and balancing multiple speakers
- ▶ Spatially-informed noise removal updating every 10ms
 - ▶ Removes noise – preserves speech – even from same direction



How Does it Work?



Analyzes



Balance



Noise removal

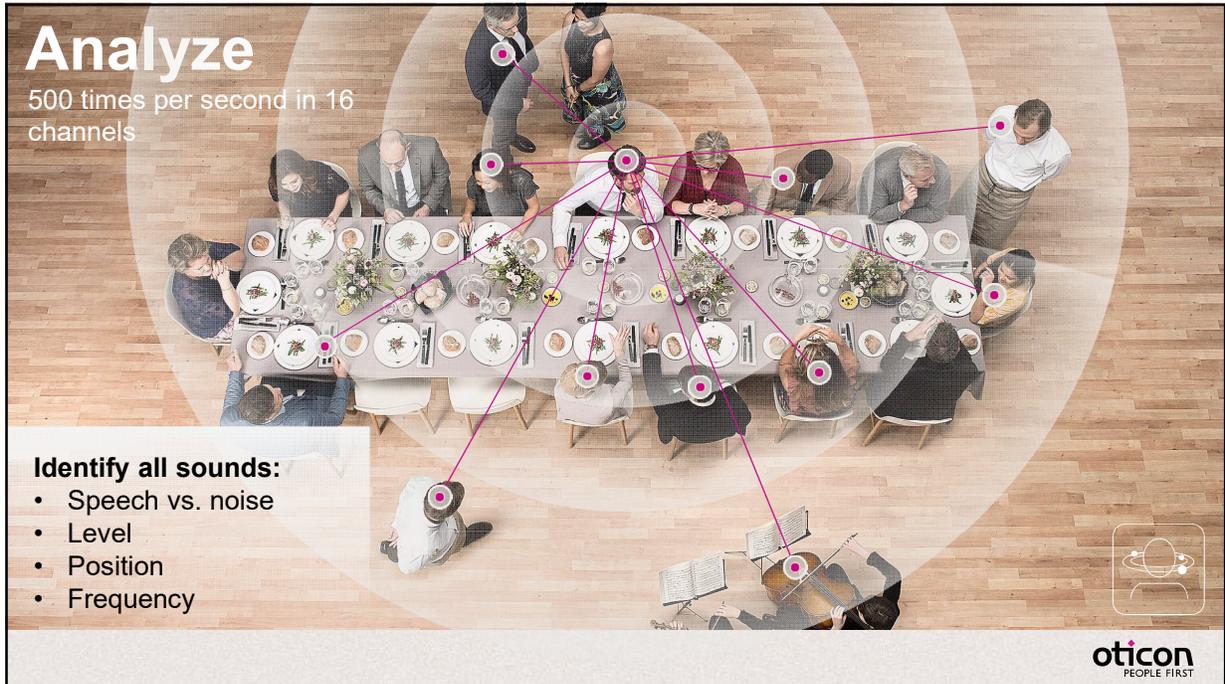


Analyze

500 times per second in 16 channels

Identify all sounds:

- Speech vs. noise
- Level
- Position
- Frequency

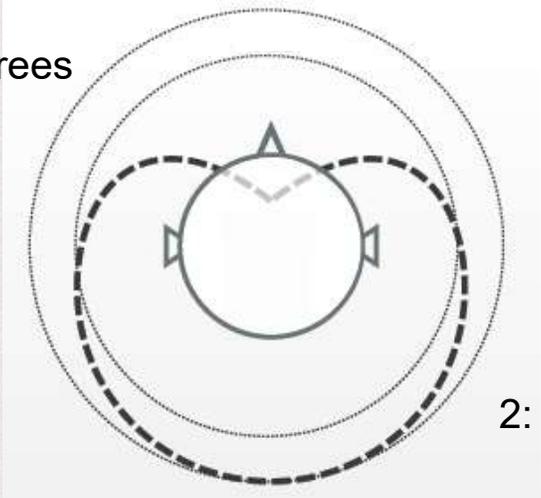


oticon
PEOPLE FIRST

Analyze This

Evaluating the soundscape

1: 360 degrees



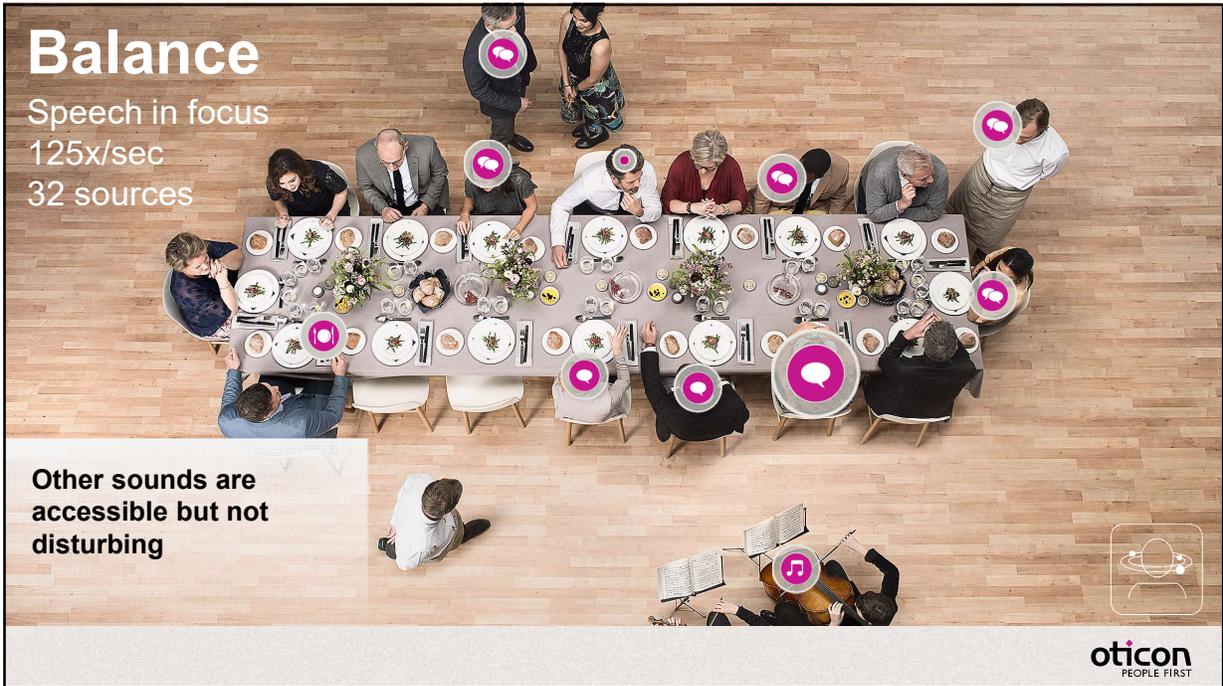
2: Rear cardioid

oticon
PEOPLE FIRST

Balance

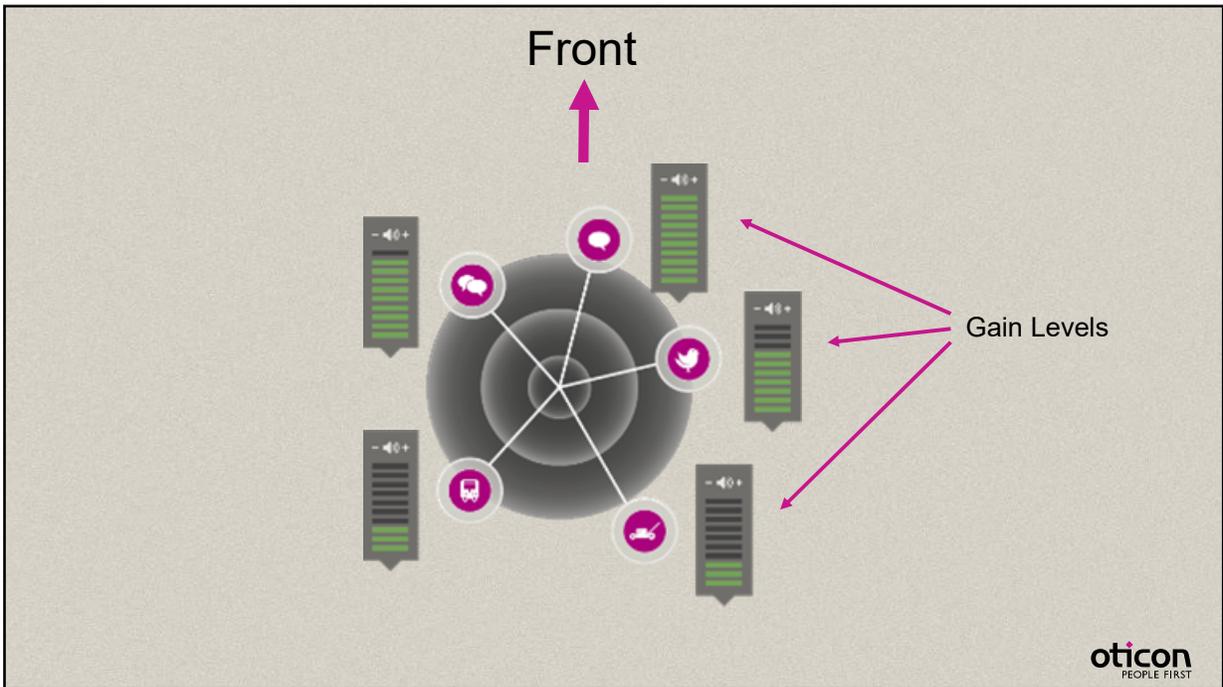
Speech in focus
125x/sec
32 sources

Other sounds are accessible but not disturbing



The image shows an aerial view of a restaurant with a long table. Several people are seated at the table, and a waiter is standing. A musician is playing a cello in the foreground. Pink circular icons with a white speech bubble are placed over the heads of several people at the table, indicating that their speech is the primary focus. A white box in the lower-left corner contains the text "Other sounds are accessible but not disturbing". The Oticon logo is in the bottom right corner.

oticon
PEOPLE FIRST



OpenSound Navigator in Genie 2016.1



Genie 2 | 2016.1 [Open, Annie]

File Genie Edit Hearing Instrument Preferences Tools Help

Connect

oticon PEOPLE FIRST

Opn 1 Bass dome, single

CLIENT COUNSELING FAMILY SELECTION FITTING END FITTING

Opn 1 Bass dome, single

P1 P2 P3

FITTING

- Fine-tuning
- OpenSound Navigator**
- Program Manager
- Feedback Analyzer

MORE TOOLS

- Automatic Adaptation Manager
- Automatics
- Acoustics
- Data Logging
- REM

Simple environment Transition Complex environment

YOUOMATIC LX

Noise reduction - Simple

0 -1.5 -3 dB

Open Sound - Transition

LOW MEDIUM HIGH

Help with auditory focus

Noise reduction - Complex

-5 -7 -9 dB

Directionality settings Open Automatic

Reference

