Trends and directions in the hearing healthcare market

Niels Jacobsen, President & CEO, William Demant Holding
Søren Nielsen, President, Oticon
Agenda

Starting point

• The hearing healthcare market

Hearing aids

• Trends and directions
• Channels and geography

Fundamental drivers

• Demographics
• Prevalence
• Reimbursement

Challenges

• Drop-out rates
• Consequences of hearing loss
• Understanding end-users
Niels Jacobsen

President and CEO, William Demant Holding A/S

- Born in 1957
- M.Sc. in Economics from Aarhus University
- Part of the executive management in William Demant Holding since 1992
- President & CEO in William Demant Holding since 1998

Board positions:
- LEGO (Chairman)
- KIRKBI (Vice Chairman)
- Maersk Group (Vice Chairman)
- Össur (Chairman)
- Oticon (Chairman)
- Directorships in a number of Group-owned subsidiaries
The hearing healthcare market
The hearing healthcare market today

A fundamentally healthy market

Stable, but competitive environment

- No new players of significance have entered the market for the past three decades
- The leading players are entering into related business areas
- Many good product offerings in the market

The industry must adapt to the continuously changing market conditions

- Customers react more slowly to new product introductions
- More “glue” in independent sales channels
- Increased focus on price in certain government systems

Fundamentally healthy market dynamics

- Stable underlying unit growth
- Promising demographic development in the years to come
- Significant improvements in end-user benefits in recent product generations
# Hearing solutions

## Strong growth opportunities in the implant market

<table>
<thead>
<tr>
<th>Styles</th>
<th>Description</th>
<th>Growth potential</th>
<th>Market value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>BTE</strong></td>
<td>Preferred choice in more complex cases and in developing markets</td>
<td><strong>Stable</strong></td>
<td><strong>USD 4bn (whole sale)</strong></td>
</tr>
<tr>
<td><strong>ITE</strong></td>
<td>Stabilised at the current share of total market</td>
<td><strong>Stable</strong></td>
<td></td>
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<tr>
<td><strong>RITE</strong></td>
<td>Preferred choice in many countries – best performance/size ratio</td>
<td><strong>Good</strong></td>
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<tr>
<td><strong>IIC/extended wear</strong></td>
<td>A niche market for cosmetically oriented users</td>
<td><strong>Good</strong></td>
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<tr>
<td><strong>Cochlear implants</strong></td>
<td>An underpenetrated market with strong growth opportunities</td>
<td><strong>Strong</strong></td>
<td><strong>USD 1bn</strong></td>
</tr>
<tr>
<td><strong>Bone anchored systems</strong></td>
<td>A market with strong growth, but limited size of total market</td>
<td><strong>Strong</strong></td>
<td><strong>USD 125m</strong></td>
</tr>
<tr>
<td><strong>OTC amplifiers</strong></td>
<td>Fragmented market with lack of fitting and follow-up support</td>
<td><strong>Good</strong></td>
<td><strong>USD 50m</strong></td>
</tr>
</tbody>
</table>
The hearing healthcare industry
Consolidation since 1994

1994

Oticon - Bernafon – Maico - Bosch - Gfeller/Ascom - Sonic - Neurelec
Phonak - Unitron - Lori Medical - Argosy - Advanced Bionics – InSound Medical
Siemens - Rexton - A&M Audioservice
Danavox - ReSound - 3M - Sonar
Beltone - Viennatone - Philips - Interton
Starkey - Microtech - Qualitone - Vivatone
Widex - Coselgi

Today

William Demant

sonova

SIEMENS

ReSound

Starkey

WIDEX
# Hearing-related product offerings

## Hearing healthcare companies

<table>
<thead>
<tr>
<th>Offerings</th>
<th>William Demant</th>
<th>Sonova</th>
<th>ReSound</th>
<th>SIEMENS</th>
<th>Starkey</th>
<th>Widex</th>
<th>Cochlear</th>
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<td>Traditional HAs</td>
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<tr>
<td>Cochlear implants</td>
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<td>![Checkmark]</td>
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<tr>
<td>Bone conducting systems</td>
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<td>Diagnostic equipment</td>
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<td>![Checkmark]</td>
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<tr>
<td>Middle-ear implants</td>
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Hearing aids
Søren Nielsen

President, Oticon A/S

- Born in 1970
- M.Sc., Industrial Management and Product Development, Technical University of Denmark
- President of Oticon A/S since 2008, employed with the Group since 1995
- Worked for Bernafon AG in Bern, Switzerland, 1995-1997

Board positions:
- FertiliTech
- Sennheiser Communications
- Directorships in a number of Group-owned subsidiaries
Global market

Positive opportunities in an under-penetrated market

The market
- 10-11 million units sold per year
- Global wholesale market of USD 4 billion per year
- Six largest manufacturers hold a total market share of +90%
- Main markets are still the OECD countries
- 2-4% yearly unit growth driven by demographic development

End-users
- +10% of population in OECD countries suffer from hearing loss
- 35-40% of population aged +65 are hearing-impaired
- Just above 20% of the hearing impaired use a hearing aid
- Average age of first-time user is 69 years (USA)
- Average age of all users is 72 years (USA)
World market units (estimate)

Unit growth in line with historical average

CAGR = 4%
Geographic market unit split

Majority of hearing aids sold in developed markets

- North America: 29%
- South America: 7%
- Europe: 41%
- Africa: 2%
- Asia and the Pacific: 21%
Top 25 countries
Share of total world market (units)

Countries with WDH subsidiaries (hearing aids)
Style and channel break-down (2012)

Only minor changes in the channel mix

10-11 million hearing aids

2010

2012

Style

Channel

Source: WDH market data and estimates
Market channels

Increased professionalisation of the distribution channels

- The independent dispenser channel is still the most significant
  - Increasing number of outlets (low-entry barriers)
  - Buying groups play an increasingly important role
  - Increased level of interaction and more “glue” in the system
- The retail chain segment is becoming global
  - New entrants with shop-in-shop concepts (opticians etc.)
  - All large retailers seek global opportunities
- Manufacturers’ share of retail is increasing slightly
  - All manufacturers are involved in retail
  - Limited growth from a unit perspective
- Public channel is slightly below market growth
  - Structural changes have limited impact on unit sales
Levels of customer interaction

More "glue" in the independent system

- Independent retailers
- Supply agreements
- Co-op
- Supply-based loans
- Loans for expansion
- Minority ownership
- Manufacturer-owned retail

Overall goal is to ensure long-term wholesale supply
Fundamental drivers in the industry
Fundamental drivers in the industry

Three key drivers for market unit growth

Main factors for market development
- Maturity of the market
- Third-party payment
Growth factors in the industry

World population is getting older

- 2 billion mature customers in 2047
- Dependency ratio will force us to work longer
- In Japan, the 60+ group already constitutes more than 1/3 of the population
# Demographic development

**Increasing growth in the 65+ population**

<table>
<thead>
<tr>
<th>Region</th>
<th>Share of global market (units)</th>
<th>Units sold per year ('000)</th>
<th>Total 65+ population in 2013</th>
<th>Yearly growth in 65+ population</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td>2008 to 2013</td>
</tr>
<tr>
<td>Western Europe</td>
<td>35%</td>
<td>3,700</td>
<td>78,000,000</td>
<td>1.6%</td>
</tr>
<tr>
<td>Eastern Europe</td>
<td>7%</td>
<td>750</td>
<td>18,000,000</td>
<td>1.2%</td>
</tr>
<tr>
<td>North America</td>
<td>29%</td>
<td>3,100</td>
<td>50,000,000</td>
<td>2.6%</td>
</tr>
<tr>
<td>South America</td>
<td>7%</td>
<td>750</td>
<td>44,000,000</td>
<td>-</td>
</tr>
<tr>
<td>Oceania</td>
<td>4%</td>
<td>400</td>
<td>4,500,000</td>
<td>3.3%</td>
</tr>
<tr>
<td>Asia</td>
<td>17%</td>
<td>1,800</td>
<td>313,000,000</td>
<td>3.0%</td>
</tr>
<tr>
<td>Africa</td>
<td>2%</td>
<td>200</td>
<td>38,000,000</td>
<td>3.1%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
<td><strong>10,700</strong></td>
<td><strong>545,500,000</strong></td>
<td><strong>2.6%</strong></td>
</tr>
</tbody>
</table>

Source: U.S. Census Bureau, Population Division, 2013 and WDH estimates (units sold)
Most developed countries

Growth in 65+ population in the most developed countries

Source and definitions: U.S. Census Bureau, Population Division, 2013
Baby boomers

Focus group of the entire industry

- The baby boomer generation covers U.S. citizens born from 1946 to 1964
- The segment consists of approx. 77 million Americans who constitute the largest population group in the US
- The generation’s oldest members have now passed 65 years of age and thus entered the target market for the hearing aid industry
- This group is:
  - Internet-savvy
  - Health-conscious
  - Critical
  - ... and has high expectations
- A significant opportunity for the industry
Developing countries

Growth in 65+ population in the developing countries

Source and definitions: U.S. Census Bureau, Population Division, 2013
Penetration in developing markets

Basic factors are crucial for a market to develop

Drivers for increased penetration

• Increasing age and GDP
• Next 65+ generation is wealthier
• Developing markets are significantly under-penetrated
• Reimbursement in place
• Access to distribution

Factors limiting increased penetration

• Lack of audiological tradition
• A relatively young population
• Elderly population with low income
• Few reimbursement plans
• Lack of infrastructure
• Low average selling prices
Penetration rates

Percentage of hearing-impaired population wearing hearing aids

Source: WDH market data and estimates
Binaural fitting rate

Share of hearing aid users wearing two hearing instruments

Source: MarkeTrak and WDH market data/estimates
Reimbursement

Significant variety in reimbursement systems

- Reimbursement is generally positive for the development of a hearing aid market
  - Not all reimbursement systems are beneficial for end-users or the industry
- Ongoing changes in reimbursement
  - Most countries adapt their programmes on a regular basis
  - Generally not driven by austerity measures
- No universal reimbursement system or trends
  - All countries seem to develop their own programmes
- Freedom of choice is positive for end-users and for the industry

Source: WDH estimates
Third-party payment

Lack of awareness of reimbursement

**Owners:** Was any part or all of your hearing aid(s) paid for by a third party? (insurance, government etc.)

**Non-owners:** Based on your current knowledge, would any part or all of your hearing aid(s) be paid for by a third party?

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**Germany**

- Yes: 17%
- No: 52%
- Don't know: 31%

**France**

- Yes: 7%
- No: 41%
- Don't know: 52%

**United Kingdom**

- Yes: 2%
- No: 24%
- Don't know: 74%

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Source: EuroTrak 2012
Additional industry insight

Comprehensive studies on hearing-related issues

MarkeTrak and EuroTrak/JapanTrak are global comparative studies of hearing, hearing loss and hearing aids conducted on behalf of industry associations in select countries

<table>
<thead>
<tr>
<th></th>
<th>MarkeTrak</th>
<th>EuroTrak/JapanTrak</th>
</tr>
</thead>
<tbody>
<tr>
<td>Most recent survey</td>
<td>2009</td>
<td>2012</td>
</tr>
<tr>
<td>First survey</td>
<td>1989</td>
<td>2009/2010</td>
</tr>
<tr>
<td>Markets covered</td>
<td>USA</td>
<td>UK, Germany, France, Norway, Switzerland, Italy and Japan</td>
</tr>
<tr>
<td>Survey base</td>
<td>46,843 households</td>
<td>105,000 people</td>
</tr>
<tr>
<td></td>
<td>(14,623 people with hearing loss)</td>
<td>(9,000 with hearing loss)</td>
</tr>
<tr>
<td>Main sources for further</td>
<td><a href="http://www.hearingreview.com">www.hearingreview.com</a></td>
<td><a href="http://www.anovum.com">www.anovum.com</a></td>
</tr>
<tr>
<td>information</td>
<td><a href="http://www.betterhearing.org">www.betterhearing.org</a></td>
<td><a href="http://www.hear-it.org">www.hear-it.org</a></td>
</tr>
<tr>
<td></td>
<td></td>
<td><a href="http://www.ehima.com">www.ehima.com</a></td>
</tr>
</tbody>
</table>

Direct links to the most recent studies:
Industry challenges
Industry challenges

Main obstacles for increased penetration continues

- Realising the hearing loss takes time
- Getting people with an admitted hearing loss to do something about it is still the biggest problem
- A small industry with limited marketing power
- Attractive product offerings do not attract more end-users
Example: Drop-out rates Germany

Information and relevant advice are crucial

- All hearing impaired: 100%
- Discussed hearing loss with doctor: 80%
- Positive medical advice from doctor (further action): 48%
- Discussed hearing loss with audiologist: 42%
- Positive advice from audiologist: 38%
- Fitted with hearing aid: 34%

Drop-out:
- 20%
- 40%
- 29%
Understanding the end-user

Dimensions

- State of mind
- Decision parameter
- Background
- Hearing loss
- Expectations

The Reluctant

- Is in denial
- Focus on cosmetics
- Typically first-time user
- Mild to moderate hearing loss
- Is not looking for a HA

The Acceptant

- Has accepted
- Balance of cosmetics and functionality
- Mixed hearing loss
- Knows it will be a HA

The Dependent

- Is dependent on
- Prime focus is performance
- Very experienced
- Severe to profound hearing loss
- Comfortable with HA
Understanding the end-user

**Dimensions**
- State of mind
- Decision parameter
- Background
- Hearing loss
- Expectations

**The Reluctant**
- Is in denial
- Focus on cosmetics
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- Has accepted
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- Mixed
- Moderate to severe
- Knows it will be a HA

**The Dependent**
- Is dependent on
- Prime focus is performance
- Very experienced
- Severe to profound
- Comfortable with HA
Understanding the end-user

Different people require different processes

“If we understand people, we can design the process and offer the right solutions”
Conclusions

A healthy underlying market with growth potential

- Leading players continue to consolidate into related business areas
  - Synergies will ensure a larger R&D base for the benefit of end-users
- Competitive, but stable market development
  - More “glue” in the system due to closer partnerships with customers
- Underlying growth drivers are fundamentally healthy
  - Growth from the baby boomer generation and emerging markets
  - Implant market will outgrow the market for traditional hearing aids
- Generally speaking, reimbursement schemes are positive, but they can also be a limiting factor, if there is no freedom of choice
- Low penetration rate of hearing aid users
  - Lack of relevant counseling is a limiting factor
  - Create a better understanding of the end-users’ needs and the socioeconomic consequences of a hearing loss
- Hearing aids are not a commodity – one size does not fit all!