Hear now. And always

ASX / MEDIA RELEASE

4 MAY 2018

COCHLEAR HOSTS INVESTOR DAY

Cochlear Limited, Sydney, 4 May 2018 (ASX:COH): Cochlear Limited is today hosting analysts to an investor day at its global headquarters in Macquarie University. A copy of the management presentations is attached and includes:

Overview of strategic priorities	Dig Howitt CEO & President
Cochlear Research & Development	Jan Janssen Chief Technology Officer
Sound processor development	Keith Walsh Head of Sound Processors & Connectivity
Connected care	Derek Minihane Vice President, Sound Processors & Clinical Care
Building towards standard of care in adults & seniors	Dr David Cade Chief Medical Officer
Cochlear's Europe, Middle East & African business	Richard Brook President, EMEA & Latin American Region

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Notes

Forward looking statements
Cochlear advises that these presentation slides contain forward looking statements which may be subject to significant uncertainties outside of Cochlear's control. No representation is made as to the accuracy or reliability of forward looking statements or the assumptions on which they are based. Actual future events may vary from these forward looking statements and you are cautioned not to place undue reliance on any forward looking statement.

Non-IFRS financial measures
Given the significance of foreign exchange movements, the directors believe the presentation of the non-IFRS financial measure, constant currency, is useful for the users of this document as it reflects the underlying financial performance of the business. This non-IFRS financial measure has not been subject to review or audit. However, KPMG has separately undertaken a set of procedures to agree the non-IFRS financial measures disclosed to the books and records of the group.

Constant currency
Constant currency removes the impact of exchange rate movements to facilitate comparability of operational performance for Cochlear. This is done by converting the prior comparable period net profit of entities in the group that use currencies other than Australian dollars at the rates that were applicable to the current period (translation currency effect) and by adjusting for current year foreign currency gains and losses (foreign currency effect). The sum of translation currency effect and foreign currency effect is the amount by which reported EBIT and net profit is adjusted to calculate the result at constant currency.

Disclaimer
Please note that products referenced in this presentation may not be approved or may be subject to restrictions in some regions. Any description of device usage is provided for the purpose of sharing scientific knowledge and is not a recommendation or promotion of unapproved product, off-label use or indication of product. Cochlear does not endorse any particular treatment protocol.

Legal disclaimer
Please seek advice from your medical practitioner or health professional about treatments for hearing loss. They will be able to advise on a suitable solution for the hearing loss condition. All products should be used only as directed by your medical practitioner or health professional. Not all products are available in all countries. Please contact your local Cochlear representative.

Cochlear Investor Day

4 May 2018

Strategic priorities

Dig Howitt, CEO & President

Hear now. And always

Cochlear

Overview

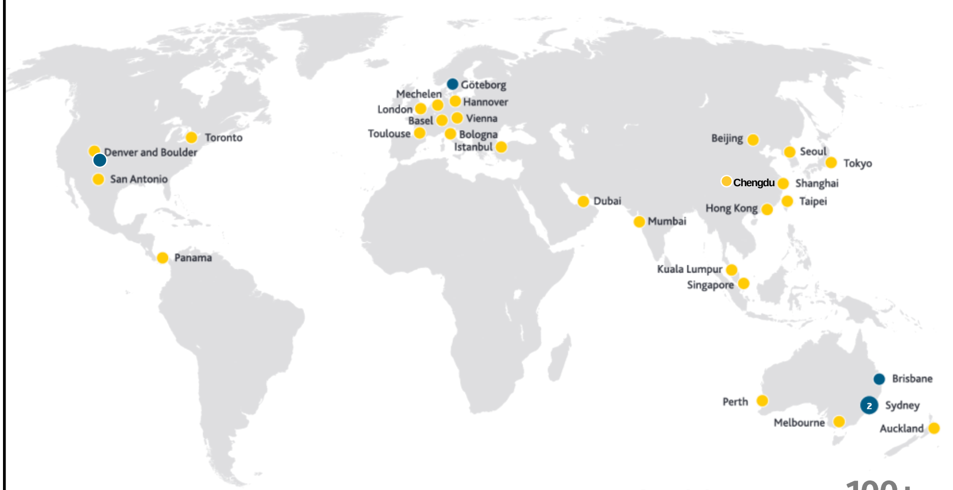
Cochlear

- Cochlear Limited (ASX:COH) is the global leader in implantable hearing devices
  - Cochlear implants
  - Bone conduction implants
  - Acoustic implants
- 3,500+ employees
- Direct operations in 30+ countries
- Products sold in 100+ countries
- Market cap - >A$10bn (Top50 ASX)

2

Global footprint

Cochlear



475,000+ implant recipients

30+ countries with a direct presence

A$150m+ in annual R&D investment

A$1.2b+ in annual sales revenue

3,500+ employees

5 manufacturing sites

100+ collaborative research programs

3

Financial history

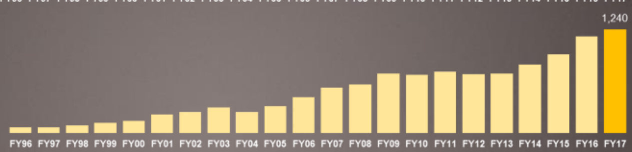
Cochlear

Cochlear implants (units)

⬆8% in FY17

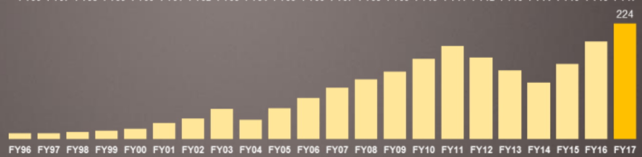
Sales revenue ($m)

⬆12% in FY17 in CC



Net profit ($m)

⬆11% in FY17 in CC



Dividends (per share)

⬆17% in FY17

CC = constant currency

4

Our mission

Cochlear

We help people hear and be heard.

We **empower** people to connect with others and live a full life.

We **transform** the way people understand and treat hearing loss.

We **innovate** and bring to market a range of implantable hearing solutions that deliver a lifetime of hearing outcomes.

5

Hearing loss is prevalent and under-treated

Cochlear

>460,000,000

The WHO estimates that over 5% of the world's population – 466 million people – has a disabling[1] hearing loss. By 2050 this is expected to rise to over 900 million people – or one in every ten people[2].

1 in 3

Nearly 1 out of every 3 people over the age of 65 is affected by hearing loss. It affects communication and can contribute to social isolation, anxiety, depression and cognitive decline[3].

>7,500,000

people could benefit from a cochlear implant to treat severe to profound hearing loss across Cochlear's target segments of children globally and seniors in the developed world[4].

<5%

market penetration of cochlear implants[5].

6

Strategic priorities

Retain market leadership

- Market-leading technology
- World-class customer experience

Grow the hearing implant market

- Awareness
- Market access
- Clinical evidence

Deliver consistent revenue & earnings growth

- Invest to grow
- Operational improvement
- Strong financial position

Retain market leadership

R&D investment strengthens our **market-leading technology** position

- Continued R&D investment at ~12% of revenue
- Product and service R&D spans:
  - Implants & sound processors
  - Sound coding
  - Clinical & surgical tools
- Future focus:
  - Hearing indications
  - Hearing outcomes
  - Lifestyle
  - Connected care

Retain market leadership

Providing a **world-class customer experience** creates a brand halo for candidates and drives our Services business

Convenience and confidence

- Wireless connectivity
- Easy to use products and services
- Ease of access for support
- Rehab tools

Engagement

- Cochlear Family connecting recipients with Cochlear
- Growing volunteer network building awareness and increasing candidate confidence
- Recipient engagement improves upgrade penetration

Lifetime relationship

- Improving technology with each generation of sound processor
- Backward compatibility of sound processors with prior generation implants
- New products and services

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Grow the hearing implant market

Strategies to improve awareness and access vary by segment

Adults & seniors developed markets	Children developed markets	Children emerging markets
		
Biggest market potential and the most challenging to penetrate	Cochlear implants have been established as the standard of care for newborns[7] across many developed markets	Long term growth potential as wealth increases
Current penetration[6]: **~3%**	Current penetration[6]: **~60%**	Current penetration[6]: **~10%**

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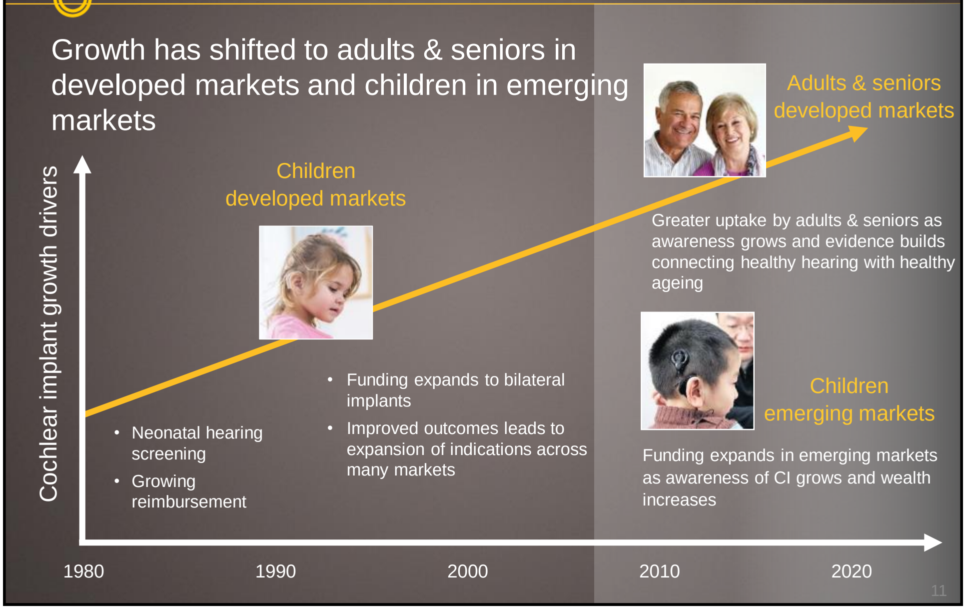
Evolution of the cochlear implant business



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Adults & seniors – developed markets

Biggest market potential and the most challenging to penetrate

Current penetration
~3%

Key priorities: building awareness and access for adults & seniors

- Support cochlear implants becoming the standard of care
  - Demonstrate hearing is an essential part of healthy ageing
  - Effectiveness of implantable solutions
  - Economics of treating age related hearing loss
- Increase referrals – direct-to-consumer and hearing aid channel
- Opportunity to expand indications and reimbursement in some markets (incl Western Europe)

12

Clinical evidence

Cochlear®

Build on the **clinical evidence** that demonstrates the effectiveness of our products, particularly for seniors

- Higher incidence of hearing loss in seniors (over 65s)[8]
- Growing understanding of the link between high levels of hearing loss and social isolation, depression and cognitive decline[9]
- Growing evidence of the superior outcomes of cochlear implants over hearing aids for many people with a severe hearing loss (>70dB)[10]
- Increasing our investment in research, health economics and collaborative partnerships to better confirm and communicate the impacts
- Building stronger awareness and access for those affected

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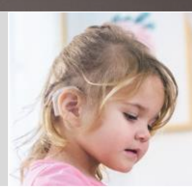
Children – developed markets

Cochlear®

Cochlear implants have been established as the standard of care for newborns across many developed markets



Current penetration

~60%

Key priorities: maintaining leadership position

- Deeper penetration in some markets – US and Japan
- Increased rate of bilateral implantation – variability across Top 10 markets
- Strengthen the treatment pathway for acquired or progressive hearing loss in older children – intervention is materially lower for children who lose hearing after birth[11]

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Children – emerging markets

Cochlear

Long term growth potential as wealth increases

Current penetration

~10%

Key priorities: market expansion

- Build awareness – public education campaigns, direct-to-consumer marketing and hearing screening
- Expand funding – compelling health economics of implantation in children[12]
- Expand presence – distributor relationships combined with an expanding direct presence
- Develop professional capability – surgeon training and audiology education
- Maximise penetration through tiered product offering

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Deliver consistent revenue & earnings growth

Cochlear

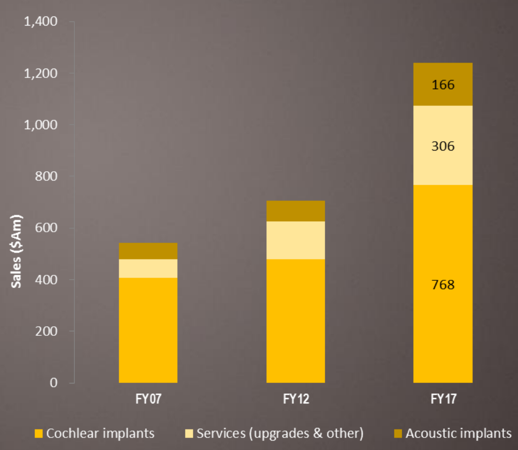
Growing revenue streams across all business units

Growth drivers…

Cochlear implants
- Awareness and uptake by adults & seniors
- Emerging market expansion

Services
- Growing recipient base
- Upgrade penetration

Acoustics
- Market expansion
- Upgrade penetration



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Deliver consistent revenue & earnings growth

Cochlear

Cochlear is investing operating cash flows to drive growth

Invest to grow

- Building awareness and access to our products requires multi-year investment in sales, marketing and R&D activities
- Maintain net profit margin

Operational improvement

- Optimising cost of production strengthens our competitive position
- Reinvest efficiency gains in market growth activities

Strong financial position

- Strong cash flow generation funds growth
- Maintain strong balance sheet and target dividend payout of 70% of net profit

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References

Cochlear

1. Disabling hearing loss refers to hearing loss greater than 40 decibels (dB) in the better hearing ear in adults and a hearing loss greater than 30 dB in the better hearing ear in children.
2. Who.int. WHO | Prevention of deafness and hearing loss [Internet]. 2018
3. Who.int. WHO | 10 facts on deafness [Internet]. 2018
4. Cochlear Internal Data; PwC Strategy& analysis
5. Market penetration - estimate based on Cochlear sourced data
6. Estimate based on information available to Cochlear
7. Year 2007 position statement: Principles and guidelines for early hearing detection and intervention programs. Pediatrics 2007;120:898-921; World Health Organization. Newborn and infant hearing screening: current issues and guiding principles for action 2009. Available from: http://www.who.int/blindness/publications/Newborn_and_Infant_Hearing_Screening_Report.pdf
8. NICE - Cochlear implants for children and adults with severe to profound deafness – Jan09
9. “Dementia prevention, intervention, and care”, Livingston G B, et al. Lancet, July 2017; Mick P, Kawachi I, Lin FR. The association between hearing loss and social isolation in older adults. Otolaryngol Head Neck Surg 2014;150:378-84; Hsu WT, Hsu CC, Wen MH et al. Increased risk of depression in patients with acquired sensory hearing loss: A 12-year follow-up study. Medicine (Baltimore) 2016;95:e5312; Stam M, Kostense PJ, Lemke U et al. Comorbidity in adults with hearing difficulties: which chronic medical conditions are related to hearing impairment? Int J Audiol 2014;53:392-401); Barnett S. A hearing problem. Am Fam Physician 2002;66:911-2, 915
10. Hoppe et al, “Longterm Results of a Screening Procedure for Adult Cochlear Implant Candidates”, Thieme (2016)
11. Kantar Market Research; COH data; PwC Strategy& analysis
12. Qiu J, Yu C, Ariyaratne TV et al. Cost-Effectiveness of Pediatric Cochlear Implantation in Rural China. Otol Neurotol 2017;38:e75-e84; Foteff C, Kennedy S, Milton AH et al. Economic evaluation of treatments for pediatric bilateral severe to profound sensorineural hearing loss: an Australian perspective. Otol Neurotol 2016;37:462-9; Bond M, Mealing S, Anderson R et al. The effectiveness and cost-effectiveness of cochlear implants for severe to profound deafness in children and adults: a systematic review and economic model. Health Technol Assess 2009;13:1-330

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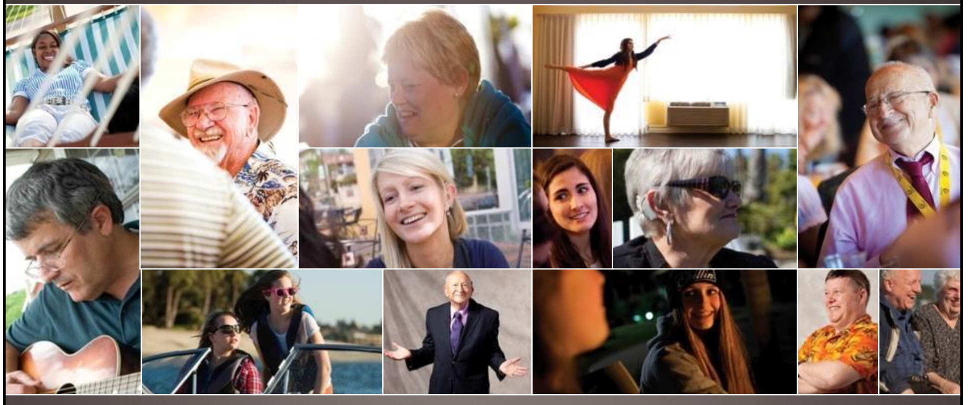

Cochlear Investor Day

4 May 2018

Cochlear Research & Development

Jan Janssen, Chief Technology Officer

Hear now. And always

Cochlear®

Cochlear's mission

Cochlear®

We help people hear and be heard.

We **empower** people to connect with others and live a full life.

We **transform** the way people understand and treat hearing loss.

We **innovate** and bring to market a range of implantable hearing solutions that deliver a lifetime of hearing outcomes.

Cochlear's mission

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Why product innovation matters

Hear now. And always

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Hearing loss is prevalent and under-treated
Cochlear
>460,000,000
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<5%
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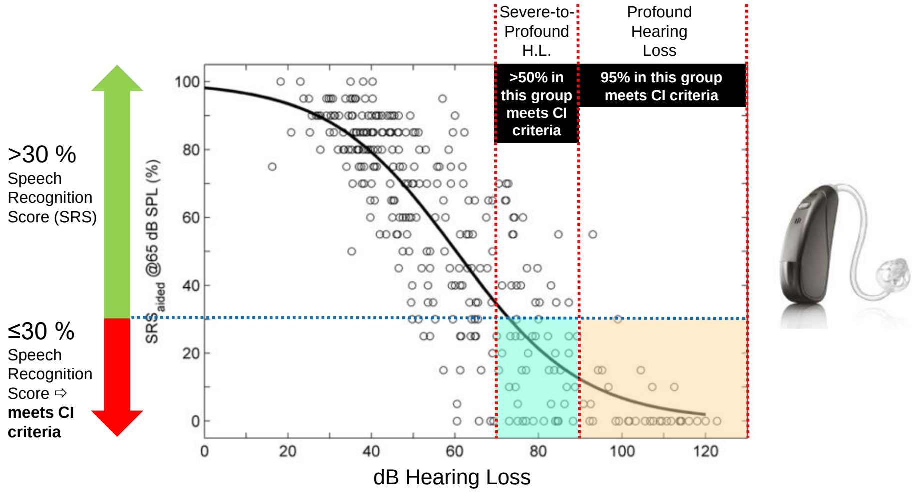
5

Getting treated is an obstacle race
Cochlear
STANDARD OF CARE
Product innovation can play a key role in removing obstacles
Lack of Awareness
Candidates & Professionals
Limited Access
Fear of Surgery
Loss of Residual Hearing
Variable Outcomes
Size & Aesthetics
Complexity of the intervention

Who could benefit from a cochlear implant

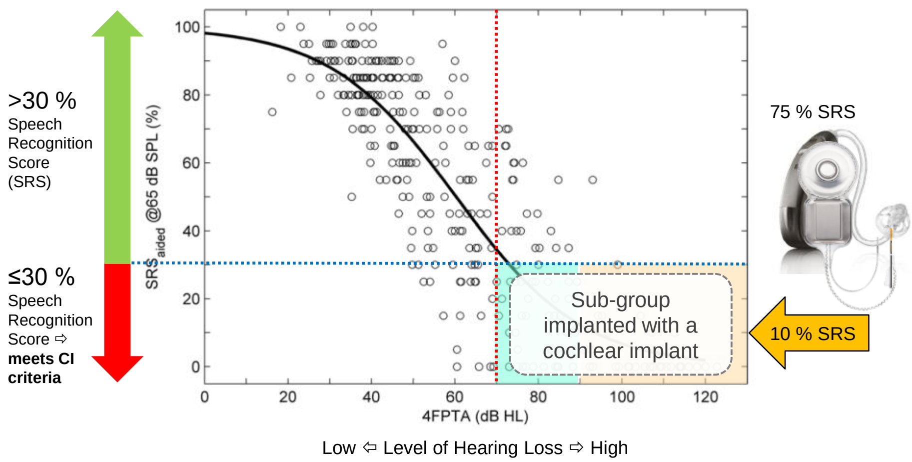
In a recent German study, well over 50% of people with severe-to-profound hearing loss (70dB – 90 dB) get poor results with hearing aids (≤ 30% words correct)



Reference: Hoppe U, Hast A, Hocke T, "Audiometry-Based Screening Procedure for Cochlear Implant Candidacy", Otology Neurotology 2015

Who could benefit from a cochlear implant

The Hearing Aid sub-group (n=38) implanted with Cochlear Implant achieved a 65% point improvement in Speech Recognition Score



Low ⇦ Level of Hearing Loss ⇨ High

Reference: Hoppe et al, "Longterm Results of a Screening Procedure for Adult Cochlear Implant Candidates", Thieme 2016

Cochlear's R&D expenditure

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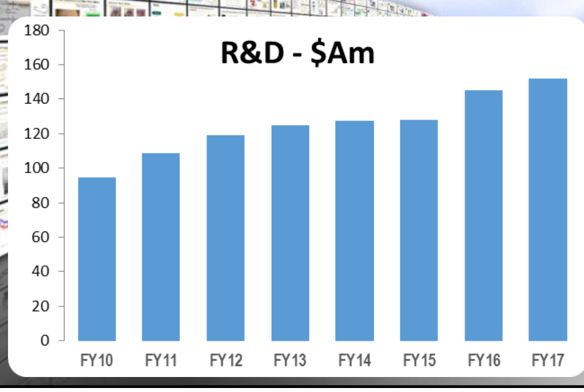
Cochlear's product innovation investment

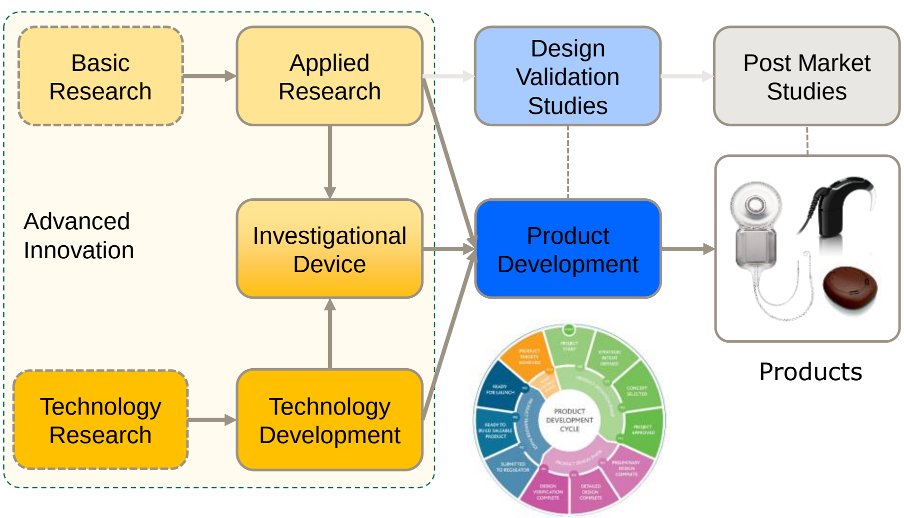
In FY17 Cochlear invested over A$150m in Research & Development and Medical Affairs (Clinical, Regulatory and Quality)



Global innovation network

- Over 350 R&D staff in international locations
- Main R&D site co-located with Australian Hearing Hub
- Over 100 Research Partners in over 20 countries
- Global network of Design Partners and Suppliers

Research & Development at Cochlear



Product innovation focus

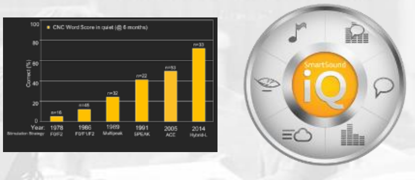
Hear now. And always

Cochlear

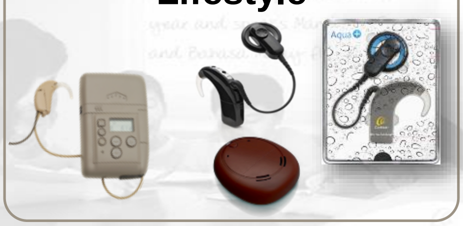
Future focus areas

Cochlear

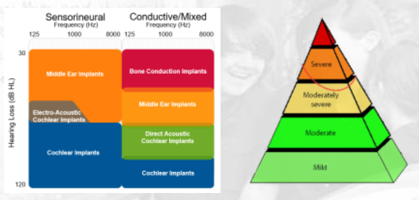
Hearing Outcomes



Lifestyle



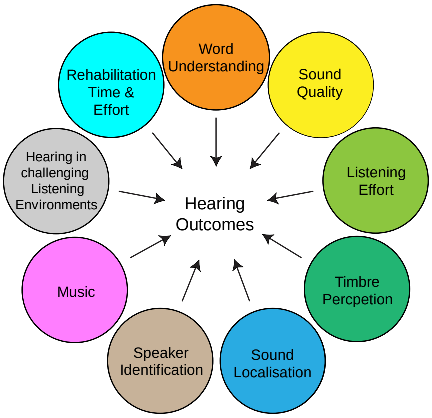
Hearing Indications



Connected Care

Hearing outcomes

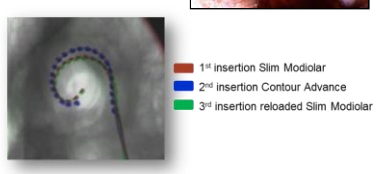
Hearing Outcomes



Nucleus® Profile with Slim Modiolar electrode array – CI532

Hearing Outcomes

- Nucleus® Slim Modiolar electrode – launched September 2016
  - Thinnest perimodiolar array
    - 60% less volume compared to Contour Advance
    - Atraumatic design for protecting the fine structures
  - Designed for consistent peri-modiolar positioning
    - Consistent positioning close to the modiolus
    - **Closest to the nerve** to optimise hearing outcomes
  - Designed for ease of insertion
    - Improved surgical handling
    - Confidence in surgical outcomes
- Benchmark clinical study under way



Nucleus 7 Sound Processor – Bimodal Made for iPhone

Hearing Outcomes

Nucleus® 7
Sound Processor

Made for iPod iPhone iPad

ReSound GN

ReSound LiNX 3D
or
ReSound ENZO 3D

Made for iPod iPhone iPad

CI & Pharma Combination therapy opportunities

Hearing Outcomes

- Cochlear is actively scanning pharma and biological therapies for treatment of hearing loss
- Collaborating with a number of partners in the areas of oto-protection and regeneration
- Combination therapies (device + drug) are likely to emerge in the coming years, enhancing the CI therapy
- In December 2017, Cochlear formed a strategic collaboration with Sensorion (France) focused on improving hearing outcomes in patients with cochlear implants

REUTERS

BRIEF-Sensorion And Cochlear Announce Collaboration To Study Combination Therapies For Cochlear Implant Patients

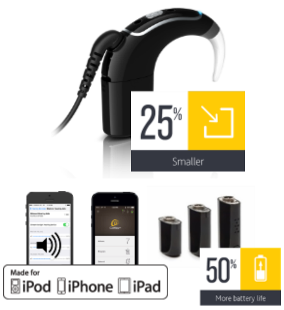
Dec 18 (Reuters) - SENSORION SA:

* SENSORION AND COCHLEAR ANNOUNCE COLLABORATION TO STUDY COMBINATION THERAPIES FOR COCHLEAR IMPLANT PATIENTS

* WILL EVALUATE SENS-401 IN COMBINATION WITH COCHLEAR'S COCHLEAR IMPLANTS IN PRECLINICAL SETTING IN 2018

Lifestyle

Nucleus 7 Sound Processor
25% smaller & lighter*



Kanso® Sound Processor
Dual mic, SmartSound® iQ
True Wireless™ audio

Carina® System
Totally Implantable
Middle Ear Implant

* Cochlear Limited. D1190805. CP1000 Processor Size Comparison. 2017, Mar; Data on file..

Connected Care

New technologies are changing the face of healthcare

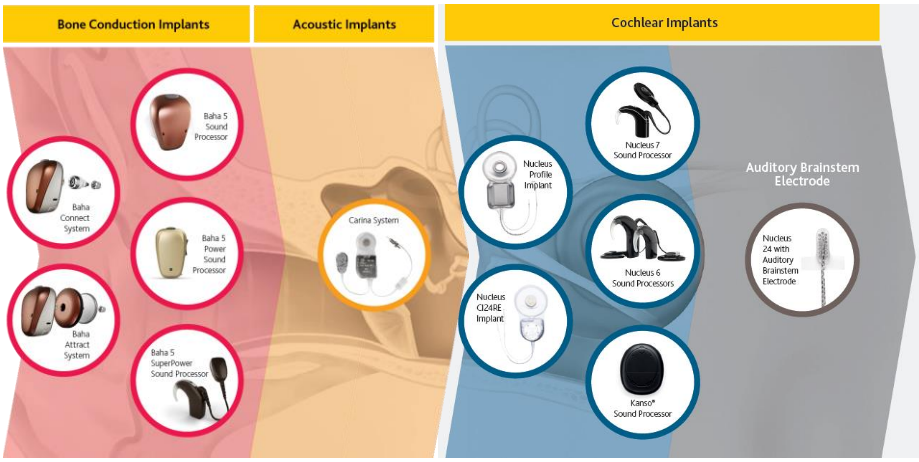
Wireless Technology

Cloud Connectivity

Artificial Intelligence

Virtual Reality

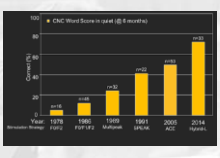
Portfolio of implantable hearing solutions



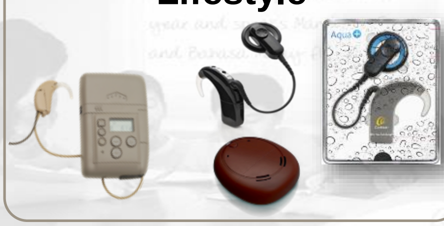
Future focus areas

Cochlear®

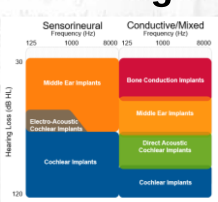
Hearing Outcomes



Lifestyle

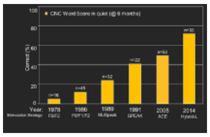


Hearing Indications



Connected Care

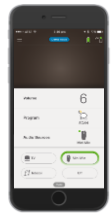
35 years of product innovation
Leading cochlear implant product portfolio



Improved
Hearing Outcomes

Improved Hearing
in the real world

True Wireless
Connectivity



Made for iPod iPhone iPad

Improved Lifestyle
Sound Processors

Thin, atraumatic, hearing
preservation electrodes

Nucleus Profile

Thin &
ultra-reliable implants

Nucleus 7
Sound Processor
(CP1000)

References

1. Disabling hearing loss refers to hearing loss greater than 40 decibels (dB) in the better hearing ear in adults and a hearing loss greater than 30 dB in the better hearing ear in children.
2. Who.int. WHO | Prevention of deafness and hearing loss [Internet]. 2018
3. Who.int. WHO | 10 facts on deafness [Internet]. 2018
4. Cochlear Internal Data; PwC Strategy& analysis
5. Market penetration - estimate based on Cochlear sourced data

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Cochlear Investor Day

4 May 2018

Sound processor development

Keith Walsh, Head of Sound Processors & Connectivity

Hear now. And always

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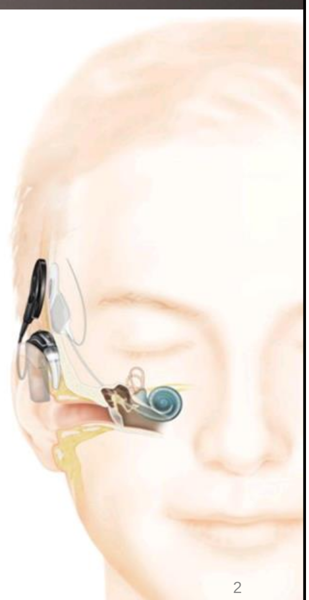
Cochlear Nucleus® Sound Processor

Cochlear®

- The sound processor is the external part of a Cochlear Implant System and is worn outside of the body.
- It provides power and importantly sound from the external environment to the internal implant.



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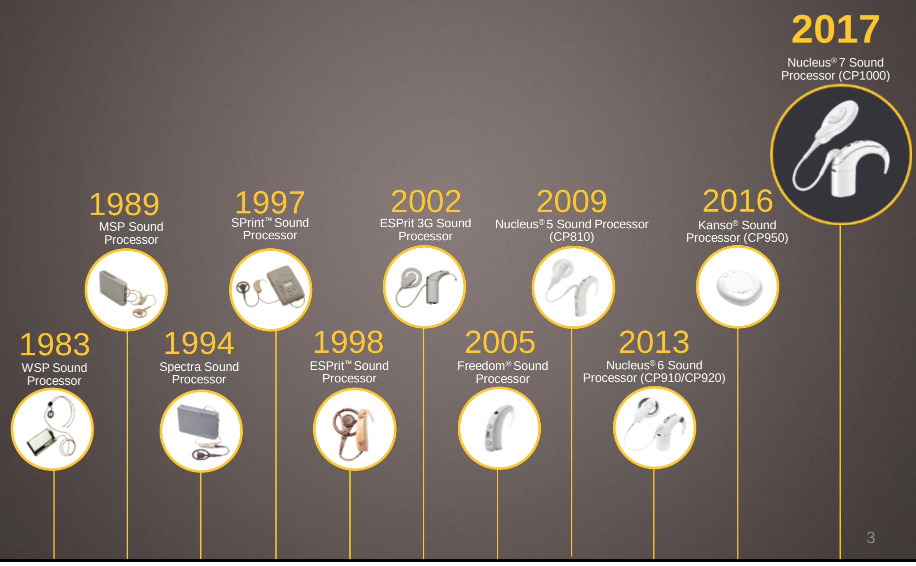
Cochlear Nucleus® Sound Processors: a history of innovation



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Nucleus® 7 Sound Processor

- The Nucleus® 7 Sound Processor is the smallest, lightest and only Made for iPhone cochlear implant sound processor.[1,2]

Made for iPod iPhone iPad

reddot award
product design

1. Cochlear Limited. D1190805. CP1000 Processor Size Comparison. 2017, Mar; Data on file.
2. Apple Inc. 'Compatible hearing devices' [Internet]. Apple Support [cited 24 February 2017]. Available from : https://support.apple.com/en-us/HT201466

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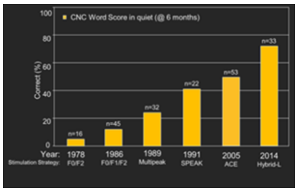
Hearing performance improvements

Cochlear®



Improved Hearing Outcomes

Dual microphones

SmartSound® iQ with SCAN

Cochlear™ True Wireless™

5

Size & weight reduction

Cochlear®

- Significant reduction in the size and weight of each Sound Processor generation, through investment in micro chip design, miniaturisation & manufacturing technologies.

6

Design & aesthetics improvements

- Design evolution has resulted in more aesthetically appealing processors.

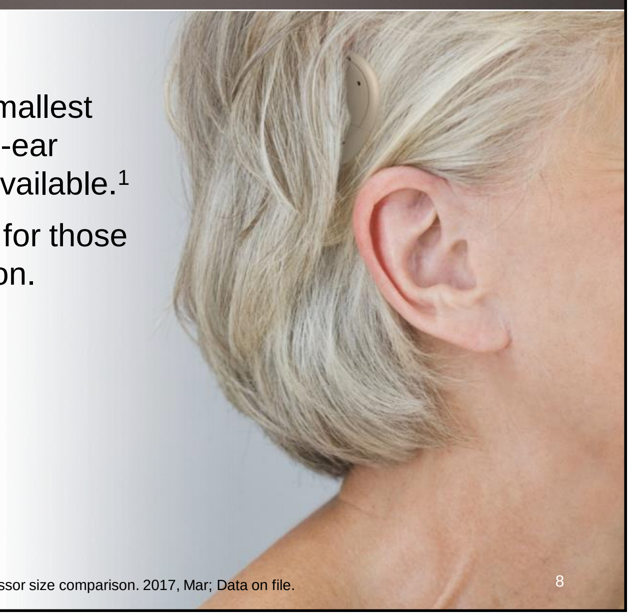
SPrint™
Sound Processor (1997)

Nucleus® 7
Sound Processor (2017)

7

Kanso off-the-ear sound processor

- The Kanso Sound Processor is the smallest and lightest off-the-ear sound processor available.[1]
- The perfect option for those who value discretion.



1. Cochlear Limited. D1190805. Sound Processor size comparison. 2017, Mar; Data on file.

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Waterprooofing evolution

9

Waterproofing evolution

- Waterproofing rating (ingress protection) continues to improve with each generation.

Freedom®
Sound Processor

IP44

Nucleus® 5
Sound Processor

IP57

Nucleus® 6
Sound Processor

IP57
Nano-coating
IP68
with Aqua+ cover

Nucleus® 7
Sound Processor

IP57
Nano-coating
IP68
with Aqua+ cover

10

Improved useability & convenience

- The Freedom® Sound Processor delivered the world's first cochlear implant system **rechargeable battery**.

- The Nucleus® 7 Sound Processor delivers our **smallest** and most **convenient** battery charger.

11

Wireless connectivity evolution

12

Wireless connectivity evolution

1. Wired connectivity.

2. Wireless via **Cochlear True Wireless™** Accessories.

3. The **Nucleus® 7 Sound Processor – Made for iPhone** lets patients connect directly to Apple iOS devices and stream music, phone calls and more.

13

Control & monitor evolution

14

Control & monitor evolution

Cochlear

- The Nucleus® Smart App is the first ever mobile application to control a cochlear implant sound processor.

Nucleus Smart

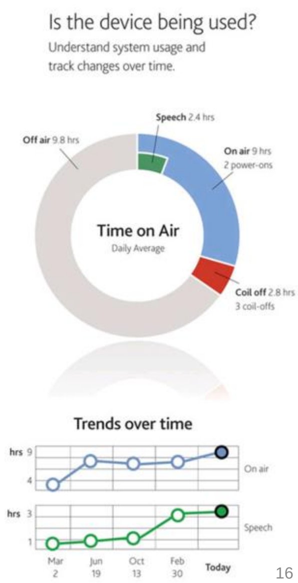
Smart App Control **Hearing Tracker** **Find my Processor**

15

CI hearing informatics

Cochlear

- Data logging has been in use since our Nucleus® 6 Sound Processor.
- In clinic, this supports evidence based counselling with tips & troubleshooting to help recipients achieve faster progress.
- Currently we have the world's largest data base of CI usage.
  - Over **78,000** recipients (de-identified) in our data base.
  - Over **75 million** hours of on-air time.
  - Data generates **insights for design** of next generation products, features and services.
  - **Recipient insights**; analysis of rate of clinic visits, penetration of new accessories, sound processors & Apps.



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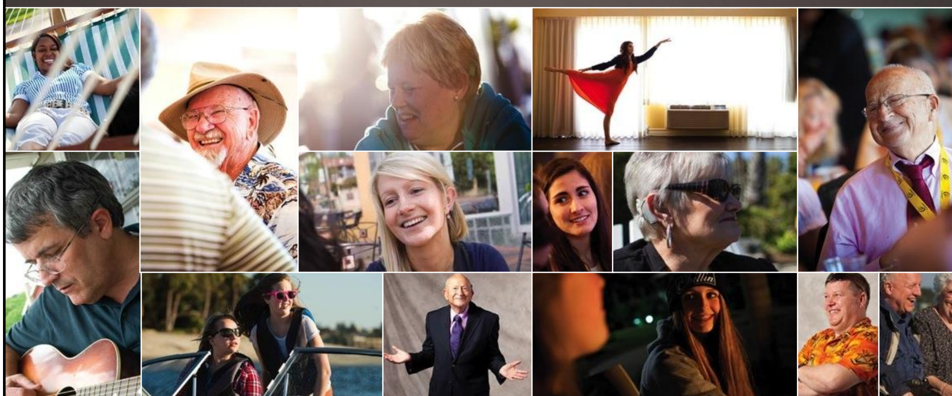


Cochlear Investor Day

4 May 2018

Connected care

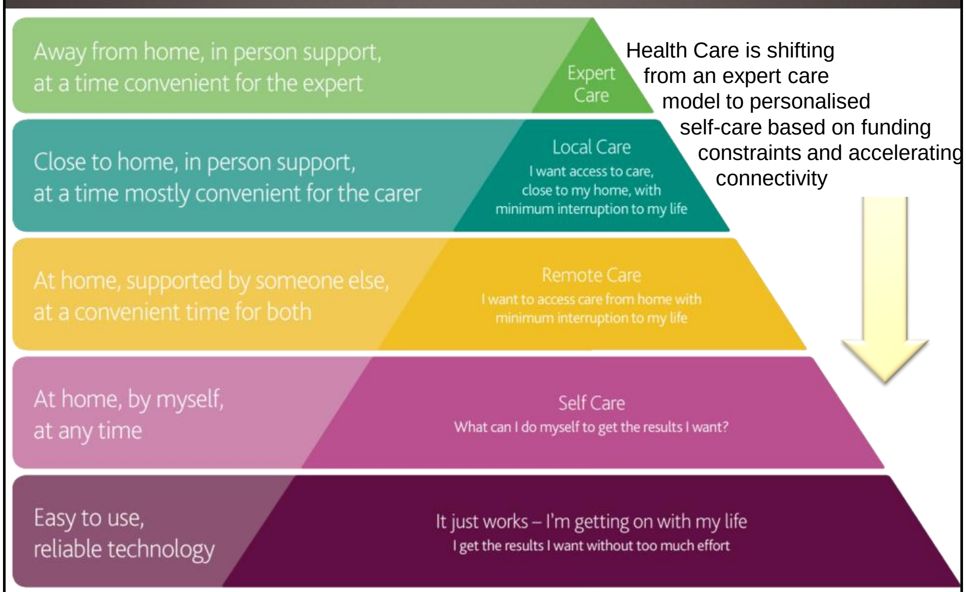
Derek Minihane, VP, Sound Processors & Clinical Care

Hear now. And always

Cochlear®

Connected health is a key industry trend

Cochlear®



Health Care is shifting from an expert care model to personalised self-care based on funding constraints and accelerating connectivity

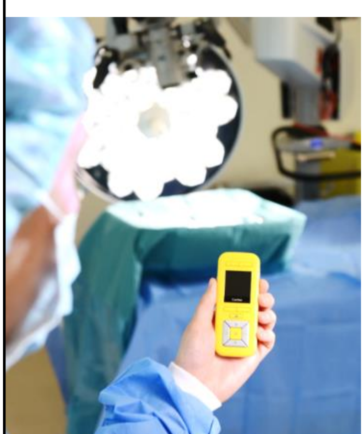
2

Continuing wireless evolution

Increased wireless infrastructure and capabilities is transforming society and will have a significant impact on the delivery of health care

3

Already wireless in surgical theatre



CONVENIENT
No equipment or PC setup required

FAST
No setup time and faster measures

SIMPLE
One button diagnostics for less training

Wireless implant diagnostics replaces laptops and wires

4

And wireless for the audiologist

Programming with a tablet

Wireless programming over Bluetooth

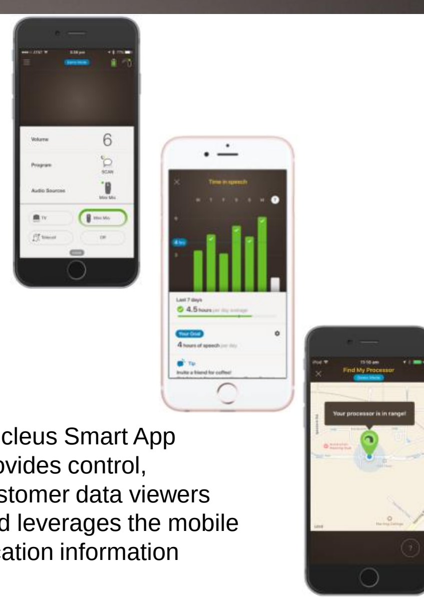
- Improved Customer Experience, in particular for paediatric fitting
- Improved Professional Experience, no longer locked to a computer desk

5

And now for our customers

Nucleus 7 ® Sound Processor connectivity enables new data driven care models

Nucleus® 7 Sound Processor

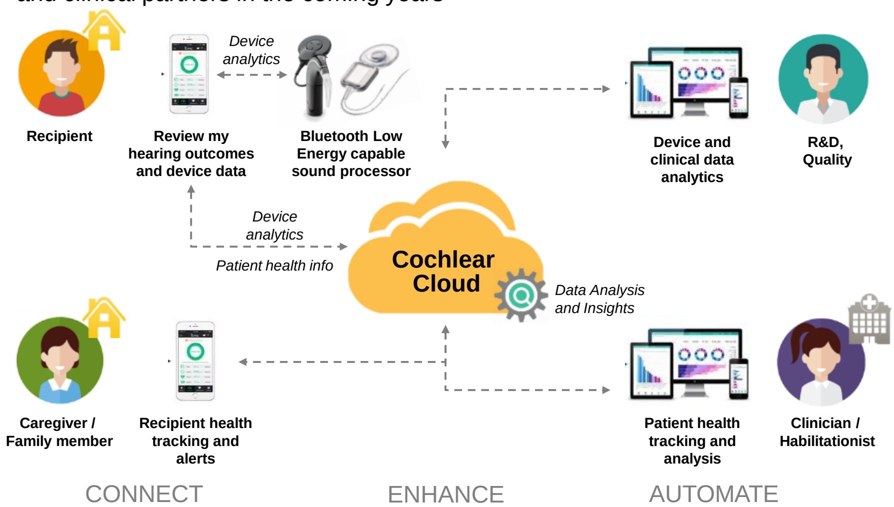


Nucleus Smart App provides control, customer data viewers and leverages the mobile location information

Nucleus 7® Sound Processor enables Connected Care

Cochlear®

Cloud connectivity enables the collection of data to better serve our customers and clinical partners in the coming years



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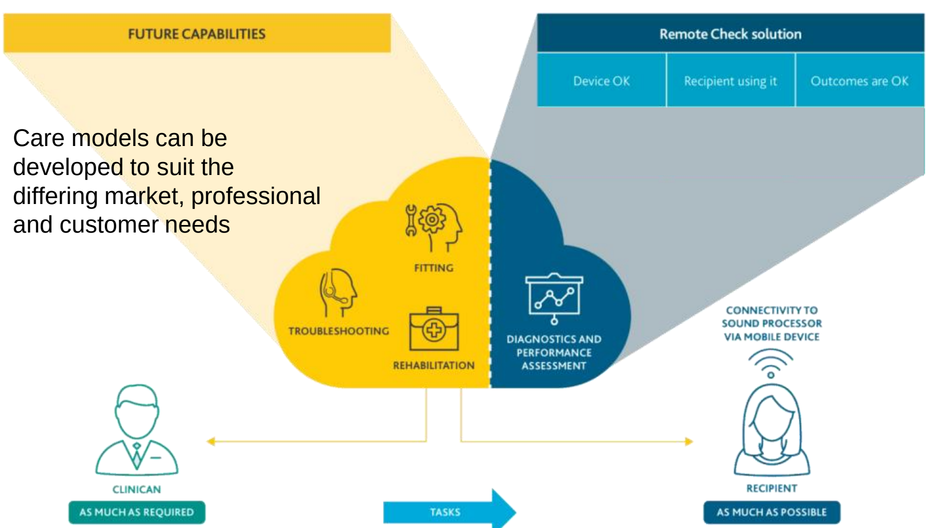
Supporting flexible care models

Cochlear®



Care models can be developed to suit the differing market, professional and customer needs

Remote care driven by the professional

Remote monitoring based on customer goals

8

Artificial intelligence trending

- Artificial intelligence will redesign health care delivery
  - Boston Children's Hospital launches cloud-based education on Amazon Alexa-enabled devices

X-ray of a hand, with automatic calculation of bone age by a computer software.

9

Artificial intelligence in fitting?

- Current challenges in fitting CI recipients
  - No standard workflow for post surgery follow-up
  - Approach to CI fitting:
    - largely based on subjective input
    - no defined targets
    - “open loop” – no built-in quality control
  - Dependent on audiologist experience & skills
  - Follow-up of existing users takes significant percentage of audiological time
  - Significant cost and time investment for our customers, clinicians, and health insurance providers

10

AI can improve CI outcomes

Cochlear

- Evidence based approach, using objective performance testing
- Fitting to a target using best practice workflows
- Acts as an audiologist assistant with changes vetted by an audiologist
- Facilitates self & remote care clinical models

Fitting to
Outcome
eXpert

11

A fantastic opportunity

Cochlear

- Connected Care will
  - Serve the need of the existing significantly larger customer opportunity
  - While providing great outcomes and customer service
- All enabled and delivered through
  - Leveraging wireless technology and connectivity
  - Providing support for market dependent business models
  - And using cutting edge techniques, such as artificial intelligence

12

Cochlear Investor Day

4 May 2018

Building towards Standard of Care for adults & seniors

David N. Cade, Chief Medical Officer

Hear now. And always

Cochlear®

Awareness & access

Hear now. And always

Cochlear®

Cochlear implants are well established as the standard of care for children in developed markets

Cochlear

Children developed markets	Children emerging markets	Adults & seniors developed markets
		
The clinical value proposition for a child born with a severe to profound hearing loss is clear		The clinical value proposition is currently less clear
High penetration • Globally ~60% • Australia >80%	**Low but growing penetration** • Globally ~10%	**Low penetration** • Globally ~3% • Australia ~8 %
Established as standard of care for newborns	**Funding is expanding as wealth increases**	**Low awareness & access**

Key barriers need to be addressed

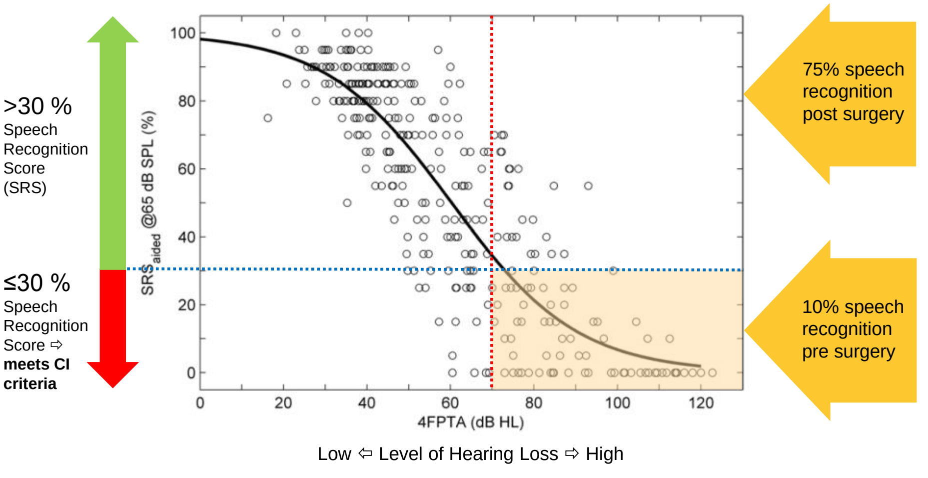
Cochlear

Adults & seniors developed markets

Key Barriers	Description
Low CI candidate awareness & acceptance	• Poor awareness of CI technology • Many get *'stuck'* in the hearing aid channel, receiving progressively more powerful hearing aids • Older candidates more likely to accept hearing loss as *'part of getting old'* and be less willing to seek treatment (especially if gradual onset hearing loss)
Low provider understanding of CI & the treatment pathway	• There is often a poor understanding of CI indications by referrers (e.g. GP and hearing aid audiologists) • Many view CI as a niche technology for children • Unclear CI treatment pathway – provider fear of incorrectly referring • Lack of evidence of effectiveness of CI versus hearing aids

Emerging evidence gives us confidence of the opportunity for adults & seniors

A recent study showed a group implanted with cochlear implants achieved a 65% point improvement in speech recognition



Defining standard of care

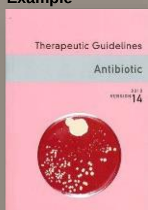
Hear now. And always

Standard of care refers to the formalised & standardised practice of medicine

Cochlear

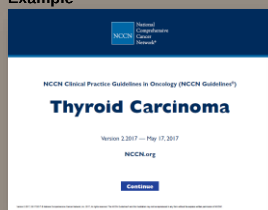
- Standard of care
  - Is the medical care provided by a doctor in accordance with what **other doctors** in that speciality would do for their patients in similar circumstances?
  - Is your doctor following evidence-based, peer reviewed **Consensus Statements,** or if they exist, **Clinical Practice Guidelines?**

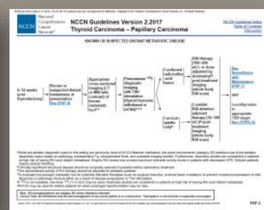
Example



Clinical Practice Guidelines
- Antibiotics
- Ensure appropriate prescribing
- Australian

Example





Clinical Practice Guidelines
- Thyroid cancer
- Prescriptive approach to treatment (same Rx offered in LA as NYC as Chicago)
- USA

- The goal – the medical care you receive is high quality, standardised, timely, personalised where appropriate and 'agnostic to the patient's portal of entry' into the healthcare system

Our objective is to establish CI as the standard of care for adults & seniors with severe to profound hearing loss

Cochlear

Standard of Care

Why treat hearing loss?

And what happens if we don't?

- Cochlear is supporting public health research via its University Partnerships
- This research examines the link between hearing and healthy ageing

Building the evidence base for CI as an effective treatment for hearing loss

- Clinical studies showing clinical benefit of CI
- Support the development of clinical practice guidelines on cochlear implantation

Optimise market access

- Ensure the most effective intervention is the most widely deployed
- Evidence to support broader funding and expansion of indications

Clinical Evidence

Why treat hearing loss?

And what happens if we don't?

Hear now. And always

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Increasing awareness of the shear global burden of hearing loss

Cochlear

The World Health Organisation (WHO) and the Lancet reporting on the size and cost of untreated hearing loss

- >460M people with disabling hearing loss
- >5% of global population
- Expected to reach >900M people with disabling hearing loss by 2050
- WHO estimates the global cost of untreated hearing loss at $750bn pa
- Recognition that cochlear implants are a cost-effective intervention

Reference: Wilson B, *et al.* Lancet, July 2017 and World Health organisation report - 'Global costs of unaddressed hearing loss and cost-effectiveness of interventions'

Increasing awareness of hearing loss' association with other health impacts

Cochlear

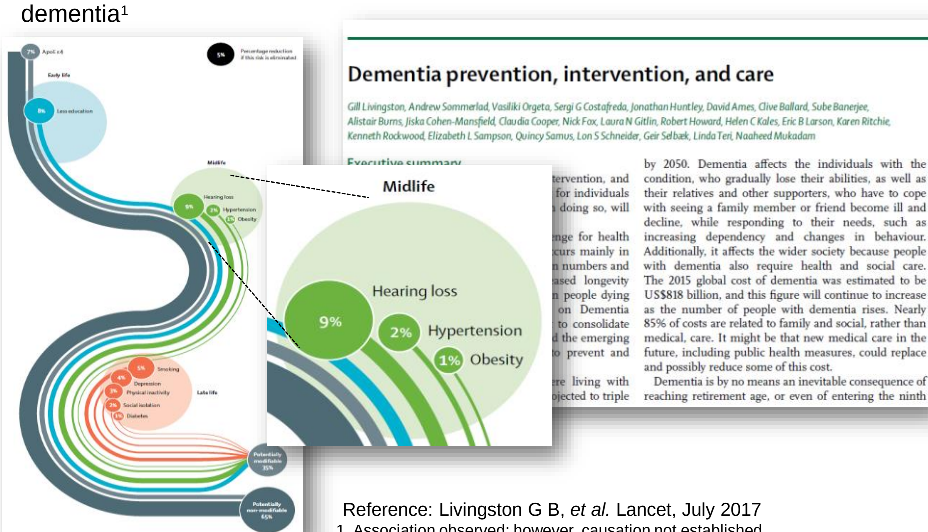
- Social isolation & withdrawal
- Depression & anxiety
- Cognitive decline & dementia
- Falls & physical injury
- Ability to self care

Reference: Better Hearing Institute

Hearing loss is associated with disease states that carry significant public health impacts

Cochlear

The Lancet reports that hearing loss is the single largest modifiable risk factor for dementia[1]



Reference: Livingston G B, *et al.* Lancet, July 2017

1. Association observed; however, causation not established

Building the evidence base for CI as an effective treatment for hearing loss

Hear now. And always

Cochlear®

Cochlear is supporting public health research into hearing loss via its university partnerships

Cochlear®

JOHNS HOPKINS BLOOMBERG SCHOOL of PUBLIC HEALTH

Established the Cochlear Center for Hearing and Public Health at Johns Hopkins University

- US$10M funding from Cochlear over 10 years
- Research into impact of hearing loss on public health
- Focus on
  - Cognition
  - Social – isolation, withdrawal
  - Mental health – depression, anxiety
  - Physical – falls, injury
- Associated healthcare costs
- Reduced productivity burden
- Influence health policy & advance global action

MACQUARIE University

Establishing the Cochlear Professorial Chair in Hearing & Healthy Ageing at Macquarie University

- Research into impact of hearing health on healthy ageing
- Focus on
  - Hearing health over the lifespan
  - Causes of hearing loss across the lifespan
  - Value of prevention
  - Identification of high risk groups
- Assemble the evidence confirming that hearing is an essential part of healthy ageing

Recent evidence suggests that treating hearing loss may have a positive effect on cognitive performance

Cochlear

"…our findings suggest a positive effect of hearing loss treatment on change in cognitive performance, especially memory…"

"Hearing impairment may also…adversely affect cognitive performance and increase the risk of dementia…"

"Hearing loss is independently associated with incident all-cause dementia. Whether hearing loss is a marker for early-stage dementia or is actually a modifiable risk factor for dementia deserves further study"

ELSEVIER

CrossMark

Alzheimer's & Dementia: Translational Research & Clinical Interventions 3 (2017) 410-415

Alzheimer's & Dementia

Short Report

A randomized feasibility pilot trial of hearing treatment for reducing cognitive decline: Results from the Aging and Cognitive Health Evaluation in Elders Pilot Study

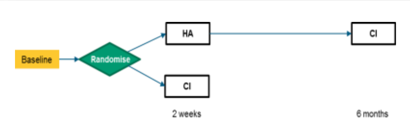
Focus for future clinical studies.....

Cochlear

Future clinical studies will build the evidence required to support development of clinical practice guidelines for cochlear implants with a focus on:

- Effectiveness of cochlear implants v hearing aids
- Economics of treating hearing loss
- Cognition studies

Randomized Controlled Trial of Immediate Versus Delayed Cochlear Implantation on Hearing Performance (COGNITION study)



For someone with severe to profound hearing loss, will a CI help ***maintain cognitive performance****, compared to the continued use of a hearing aid?*

Optimise market access

Hear now. And always

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Importance of clinical evidence for building market access

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Clinical evidence is important for successful market access and reimbursement

- **Consumers – a reason to act**
  - Awareness and advocacy
  - Investment in building capability across the business

- **Professionals – a reason to refer**
  - Standard of Care for adults & seniors
  - Research collaborations (John Hopkins, Macquarie Uni)
  - Building the evidence (clinical trials into cognition and hearing aids v CI)

- **Payers – a reason to pay**
  - Expand indications/access
  - Broadening candidacy criteria
  - Lifting funding caps
  - Broader bilateral funding

Cochlear Investor Day

4 May 2018

Europe, Middle East & Africa

Richard Brook President, EMEA & LA Region

Hear now. And always

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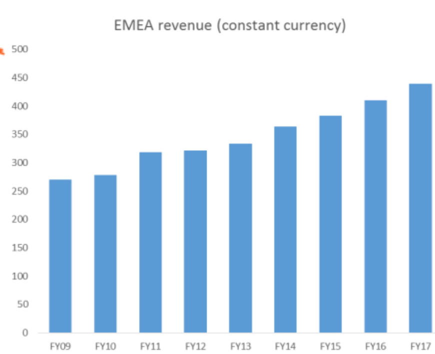
EMEA overview

Cochlear®

- Covering 73 countries, ~35% of the world's population, spanning both developed and emerging economies
- 35% of Cochlear's global revenue, delivering consistent revenue growth over time



2

Cochlear's history in EMEA

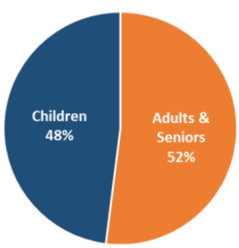
- Cochlear pioneered CI therapy in EMEA through 1980s & 90s, building on the research and relationships of Prof Graeme Clark
  - Funding initially for paediatrics (charity, gov't), followed by adults and seniors
- Initial EMEA offices opened in the 1990s, in Germany & UK
  - Additional # direct affiliates now established from 2005+
  - Direct in the majority of Western European countries with ~550 EMEA employees (excluding CBAS/Goteborg and CTC/Mechelen)
- Many long established distributors throughout the Middle East (ME) and Central & Eastern Europe (CEE)
  - Cochlear ME office established in 2014
  - Cochlear CEE office established in 2016
- Baha® technology (developed in Sweden) added to Cochlear's portfolio in 2005 via the acquisition of Entific

3

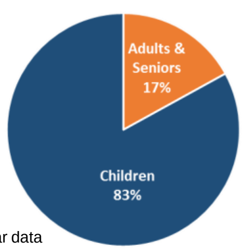
Differing cochlear implant age profiles

CI surgery mix

EMEA developed



EMEA emerging



Cochlear data

EMEA developed
- Surgery mix is broadly reflective of general market demographics i.e. an ageing population in Western Europe, where cochlear implants have now been established as the standard of care for newborns, with growth coming from adults & seniors.
- Funding mechanisms are more developed in Western Europe where the challenges centre more around awareness and access.

EMEA emerging
- A younger population in the Middle East continues to dominate healthcare funding choices with an incidence of profound hearing loss at birth higher than current implantation rates.
- In emerging markets, the vast majority of funding is directed towards treatment of paediatrics with little change expected in the medium term.

4

EMEA in developed markets

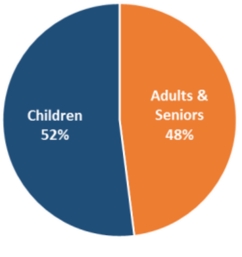
- Healthcare systems, funding mechanisms and indications vary across Western European countries
- Government funding of CI/bone conduction is reasonably well established across the majority of WE countries
  - Only small # of private health insurance or private pay for CI/Baha
  - Funding caps and/or tight indications for CI exist across many countries
- A growing number of implantations for asymmetric hearing loss and adult bilaterals
- Bilateral CI implantations are funded for children in the majority of countries
- Baha funding broadly established for conductive, single-sided deafness and mixed hearing loss

5

UK & Ireland : Market overview

CI Surgery mix

UK



Penetration rate:
- Children ~70%
- Seniors ~3%

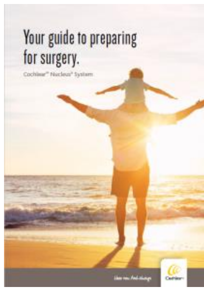
- Early adoption of CI in UK, following experimental work through 1980s
  - Nationally 22x CI clinics, ~135x Baha clinics
- CI & bone conduction are both funded via NHS, supported by National Institute for Health and Care Excellence (NICE) assessments
  - Bilaterals for children recommended 2009+
  - Current review of conservative CI indications
- Cochlear UK pursuing a range of initiatives to drive awareness and access
  - Raising awareness via Direct-to-Consumer campaigns for CI & Baha
  - Cochlear Care programmes with clinics to support recipients, provide services
  - Cochlear Family for direct communications with recipients
  - New technology including Nucleus 7 Sound Processor introduction, Baha Power and SuperPower Sound Processor and Baha SoundArc

Cochlear data

6

DTC Example
Hear more campaign – UK

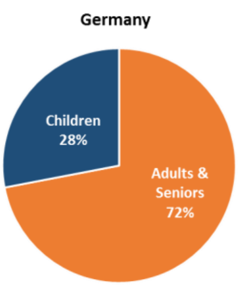
- Initial aim = to enable informative connections with candidates and their families
  - Important to be light on product, with a focus on helping to inform and provide link(s) to others
  - Utilising a range of "Nurture" emails over a period of time to avoid tech overload
- Complemented by promotion of outcomes and possibilities via various social media channels and tools
  - Adapted for web and mobile devices
- Timely and informative exchanges:
  - Hearing Health brochure
  - Hearing Situations Questionnaire
  - Audiology Appointment Guide
  - Surgery Guide
  - Accessory Guide



7

Germany : Market overview

CI Surgery mix



Penetration rate:
- Children ~80%
- Seniors ~4%

- 1st CI in 1984 (MHH, Hannover); now ~85 active implanting clinics across the country
- CI therapy covered by public reimbursement
  - Implantations via DRG clinic budgets; rehab budgets; upgrades via medical aid reimbursement budgets
- Broad CI indications:
  - Early adoption of broad(er) indications which helps drive higher # of adults & seniors
- Investment in field force over last years
  - To enable & support growth of clinics
- Focus on raising awareness and linking patient referrals to implanting clinics
  - Mix of offline and DTC initiatives
- Important service business
  - Significant Cochlear Family program with >50% of recipients now connected to Cochlear; investments in a number of in-clinic Service Lounges

Cochlear data

8

Germany:
Awareness marketing in regions with high 65+ population

Cochlear

Medium

- Ads & Advertorials: links to candidate events and online information; “Don’t accept hearing loss”
- Distribution focus on adult/senior populations
- Response element: coupon to register for info package, phone, link
- Example: Apothekenumschau = biggest German pharmacy magazine; >85% of German pharmacies

9

Germany:
DTC online core activities

Cochlear

Search Engine Optimization

Candidate EDMs

Professional & user testimonials

Social Media

Lightly Branded Website & Landing Page

Search Engine Advertisment (SEA)

Customer Relationship Management Tools

salesforce

Marketo

10

EMEA in emerging markets

- Two geographies: Middle East & Africa, Central & Eastern Europe
- Common government focus on expanding access to healthcare for their populations
- Increasing awareness and funding of CI & bone conduction therapies, but often unpredictable timing of purchases
- CI implantation rates remain well below the annual incidence of deaf born -> markets are growing, but funding can be inconsistent and unpredictable
- Important to build the post-operative infrastructure (audiology, speech and language therapy, rehab), not just conduct & fund initial surgeries
- Critical to have professional distributor partners, committed to the long term development of CI & bone conduction therapy
  - Supported by Cochlear's regional and (where warranted) country/local expertise and presence

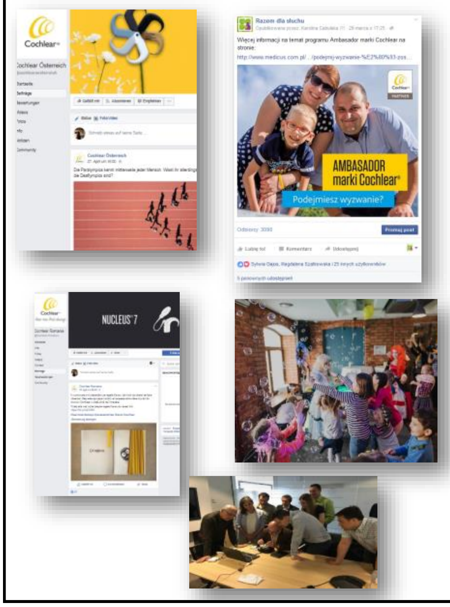
11

Middle East & Africa

- Cochlear Middle East & Africa office in Dubai
  - Multi-skilled team dedicated to support distributors, professionals and patients
- A mix of market maturities across the ME, with some supply (capacity) limitations
  - Regional CI pioneers involved in early research, trained with other KOL adopters
- Funding has been slow(er) to follow and grow after initial implantations
  - Govt funding for paediatrics, often via tenders – can be oil price related
  - Limited private pay & adult CI implantations
- Tenders can differ markedly, both in size and significance
  - range between framework agreements, one-off purchases, multi-country (e.g. GCC), differing public sector agencies (e.g. Military & MoH)
- Acoustics interest rising
  - Baha portfolio (Connect & Attract), Baha SoundArc, Carina system

12

Central & Eastern Europe



- Cochlear Central & Eastern Europe office in Vienna
  - Team dedicated to support & work with distributors, professionals and patients
  - Mix of economies and CI/bone conduction maturities, ranging from Austria (direct) to Azerbaijan
- Awareness is growing (CI & bone conduction), patient groups starting to make an impact
  - Strong regional social media engagement
- Many similar market characteristics as the Middle East
  - pioneers involved in early global research; longstanding distributor partners
  - mainly central funding across CEE, with some devolution starting to clinic-level purchasing
  - upgrades are funded periodically
- Timing of tenders can be unpredictable
  - Limited private pay market, small # adult CI implantations

13

Summary of key priorities for Cochlear EMEA
Awareness & Access

EMEA developed markets – building awareness and access for adults & seniors

- Working to support cochlear implants the standard of care
- Demonstrate the positive economics of treating age related hearing loss
- Demonstrate that functional hearing is essential to enable healthy (and cost effective) ageing
- Focus on increasing referrals – direct-to-consumer information, hearing aid channel links
- Opportunity to further expand indications and reimbursement in certain markets

EMEA emerging – market expansion focussed on paediatrics

- Build awareness – public education, social media marketing, support of hearing screening
- Expansion of funding – highlight the compelling health economics of CI in children
- Expand presence – with distributors, combined with an expanding "hybrid" Cochlear presence
- Invest in training and development of professional capabilities
- Maximise penetration through tiered product & service offering

14

...and finally...

- A significant and ongoing opportunity to raise the profile and importance of hearing across all of Cochlear EMEA's markets, both in developed and emerging economies
- For the first time in 22 years, that WHA has adopted a resolution on hearing
- An important complement to the market access and awareness initiatives that are central to Cochlear's work across EMEA

The World Health Assembly

Resolution on prevention of deafness and hearing loss

Adopted 30th May 2017

15