



Media Release

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The HEARING CRC creates Sound Value

Many of us, through our own experience, or through relatives or friends, may be aware of the impact of hearing loss on the ability to communicate and participate in society. **One in six** Australians is affected by hearing loss, twice the number as those with poor vision. The prevalence of hearing loss is age-related, rising from less than 1% for people under 15 years to **three in every four people aged over 70** years. With an ageing population, hearing loss is projected to rise to **one in every four Australians by 2050**. A major cause of hearing loss is **noise injury**, all of which **is preventable**.

Hearing loss reduces our capacity to communicate, and therefore reduces our ability to work and contribute to society, as well as to equitably participate in education, to gain competitive skills and employment, and to participate in social relationships.

The financial costs of hearing loss per annum in Australia in 2005 amounts to \$11.8 billion (\$6.7 billion in productivity loss, \$3.2 billion in informal carer costs, \$0.7 billion in health system expenditures, \$0.2 billion in education, support and non-health aids and \$1.0 billion in other financial costs). Add to that figure \$11.3 billion in quality of life impacts and the result is a total **cost of hearing loss of over \$23 billion in 2005** (Access Economics, 2006).

The HEARING CRC will undertake research projects in **four individual Research Programs**, 'Biomolecular, genetic and physiological solutions to hearing retention' (a program focused on hearing loss prevention), 'Intelligent Sound Processing' (a program looking at better technology for individuals with hearing loss), 'Integrated Bioengineering' (a program focused on improved device performance), and 'Clinical Tools, Services and Techniques' (a program focused on improved diagnosis, fitting and provision of devices). In addition, the HEARING CRC has a detailed **Commercial Program**, an **Education Program** and an **Administration Program**.

Each of the programmes incorporate member parties with specific skills, expertise, or infrastructure required to address the key critical path to adoption component to ensure uptake of outcomes by industry partners or clinical end-users. **Net benefits** for the total seven programmes of the HEARING CRC are estimated to be significantly positive, amounting to **\$7,003 million**.



Core Participants

University: The University of Melbourne, Macquarie University

Australian Government: Australian Hearing Services

Industry / Private Sector: Cochlear Limited, Siemens Hearing Instruments Pty Ltd

Other: 20 Support Parties comprising industry SME, clinical service providers, universities & hearing healthcare professionals

Research Focus

The Vision of The HEARING CRC is 'keeping Australians productive through hearing healthcare'.

Our Mission is to undertake strategic initiatives aimed at preventing hearing loss and improving communication through enhanced technology and clinical solutions.

The HEARING CRC is unique world-wide in having the capabilities and capacity to address all facets of the hearing healthcare chain.

Building on the success of previous CRCs, The HEARING CRC plans to undertake research projects in four Research Programs:

- 'Biomolecular, genetic and physiological solutions to hearing retention' (a program focused on hearing loss prevention);
- 'Intelligent Sound Processing' (a program looking at better technology for individuals with hearing loss);
- 'Integrated Bioengineering' (a program focused on improved device performance); and
- 'Clinical Tools, Services and Techniques' (a program focused on improved diagnosis, fitting and provision of devices).

Each of the programmes incorporate member parties with specific skills, expertise, or infrastructure required to address the key critical path to adoption, leading to significant economic returns through the commercialization and end-user uptake of:

- Biomolecular approaches to prevention of hearing loss associated with ageing and noise injury;
- Intelligent hearing protection technology;
- New hearing aid technology products with improved user benefits and performance;
- New implantable technology for a variety of hearing loss etiologies;
- Innovative clinical procedures that enhance benefits to users of hearing devices and extend workforce capacity;
- Innovative approaches expanding professional training; and
- Technology transfer activities to ensure that Centre research and education outcomes result in improved communication benefits for hearing-impaired adults and children.

Areas of Research Expertise

Genetics and genomics, biomolecular research, signal and speech processing; electronics and communication engineering; bioengineering and biomaterials; surgery and clinical audiology; rehabilitation; computer modelling; hearing aid and implantable technology, bio-imaging.