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Committee Secretary
Standing Committee on Science and Innovation
House of Representatives
Parliament House
CANBERRA ACT 2600

26th April 2005-04-26

Re: Inquiry into pathways to technical innovation

Dear Sir,

Please find enclosed a submission outlining our recent experience over the last five years in the areas of technical innovation. My company Dynamic Hearing Pty Ltd is a start-up company financed with Australian venture capital and staffed by a talented range of dedicated technical experts. We are steadily meeting the challenge of gaining market-share for high-tech software solutions for hearing aid and audio applications whilst competing with some established global companies based overseas.

I believe my submission about our particular pathway will inform the committee members about how the successful interaction between government support for university research and commercialisation from venture capital can provide opportunities for Australians to develop and market technical innovation. Further, we are appreciative of AusIndustry's role in the development of our business. Dynamic Hearing's aim to become a major provider of independent software for the hearing aid and audio applications industry and thus consolidate our standing amongst Australian companies exporting to the world.

Yours sincerely,

A handwritten signature in cursive script, appearing to read "Elaine Saunders".

Dr. Elaine Saunders
CEO, Dynamic Hearing Pty Ltd

Submission to the inquiry into pathways to technological
innovation

Standing Committee on Science and Innovation
Parliament of Australia, House of Representatives

Dynamic Hearing's Innovation Experience

Executive Summary

Dynamic Hearing is an Australian start-up company that licences its intellectual property to manufacturers in the field of hearing aid technology and audio applications. This submission outlines briefly the history of Dynamic Hearing, its origins and its successes.

Dynamic Hearing has benefited from Commonwealth Government support for in research and development both through the CRC scheme and AusIndustry's development grants.

Major challenges in the future for Dynamic Hearing are:

1. fair and equitable agreements and governance of intellectual property rights both in Australia and overseas.
2. the development and implementation of appropriate marketing strategies for potential customers especially those of Asian cultures.
3. establishment and maintenance of a place in the market in competition with large foreign based multi-national companies.
4. the lack of opportunity to compete in the local Australian market given the present structure of Australian Federal Government's support for foreign owned manufacturers.

Brief History

November 2000: "Digital Solutions for Deafness" business plan wins the inaugural Entrepreneurs' Challenge at the Melbourne School of Business

January 2002: Dynamic Hearing starts with venture capital funding from Nanyang Ventures and Rothschild Bioscience, intellectual property from the CRC for Cochlear Implant and Hearing Aid Innovation and staff from the CRC.

October 2002: Dynamic Hearing and the CRC complete clinical evaluation of the ADRO hearing aid strategy.

November 2002: Dynamic Hearing signs first licensing deal with French hearing aid manufacturer Intrason.

April 2003: ADRO technology receives the CRC Association's innovation award.

June 2003: Dynamic Hearing receives a further \$3,000,000 investment.

October 2003: Dynamic Hearing signs second licensing deal with German hearing aid manufacturer, Interton.

September 2004: Dynamic Hearing's CEO wins Telstra Business Women's Award (Australian Government Private and Corporate Sector, in both the National and State categories).

October 2004: Dynamic Hearing wins a Commendation in the Victorian Export Awards.

January 2005: Dynamic Hearing signs licensing deal with headset company Plantronics.

March 2005: Dynamic Hearing signs licensing deal with Gennum who is a provider of circuit components to the hearing aid industry.

Business Model

Dynamic Hearing holds a technology licence agreement with the HearWorks Pty Ltd representing the CRC for Cochlear Implant and Hearing Aid Innovation. The technology licence agreement covers applications of the ADRO digital signal processing (DSP) strategy for all applications other than electrical hearing (cochlear implants)¹. Dynamic Hearing aims to build its own portfolio of intellectual property which, together with the ADRO technology, is licensed to hearing aid manufacturers and audio equipment manufacturers. ADRO is a multi-channel amplification strategy, which is particularly suited to providing improved audibility, improved comfort and advantage in background noise to the listener. Products are implemented as software for specific signal processing hardware that functions as a miniature computer. Hearing aid and headset manufacturers source these hardware DSP chips from component manufacturers such as the Dspfactory and Gennum from Canada.

Over the last three years, Dynamic Hearing has been attempting to create a new niche within the hearing aid and headset markets by supplying software for new technologies. Our main competitors in this area are similar engineering start-up companies in the US and Europe and the R and D departments of the major hearing aid companies.

Dynamic Hearing is aiming to establish itself such that the investors can exit either by a trade sale or by an initial public offering in the Australian stock market.

Current Status

Dynamic Hearing employs eighteen staff in offices in Richmond, Victoria and one consultant in the United States. Employees include eight engineers, four audiologists, three support staff and four business development staff.

¹ HearWorks Pty Ltd has a separate agreement with Cochlear Ltd for use of the ADRO technology with cochlear implants.

Crucial marketing opportunities are offered at the major conferences and trade shows. The American Audiology Association's conference is held annually in the northern hemisphere spring in the US and the European Union of Hearing Aid Acousticians (EUHA) conference is held annually in the northern hemisphere autumn in Germany. Hearing aid manufacturers use these conferences to launch new products each year.

Dynamic Hearing's CEO Dr. Elaine Saunders and the CTO Dr. Peter Blamey spend approximately four months of the year travelling to customers and potential customers in the US, Europe and Japan. Ron West the past CEO of Cochlear Americas is employed as a consultant in the US.

Government Grants and Assistance

2003, 2004: R and D tax concession

2003: Export grant

2003: R and D start grant

2004: BIF grant

Personal awards: Dr Elaine Saunders, CEO, Victorian and Australian category winner, Telstra Business Women of the Year Awards

Major Challenges

1. Intellectual Property Regulations and International Agreements

The ADRO technology is a patented intellectual property owned by HearWorks on behalf of the CRC and licensed to Dynamic Hearing for use with non-electrical hearing via a technology licence agreement. Dynamic Hearing has further increased its intellectual property portfolio by applying for another four patents. A major challenge to Dynamic Hearing is to maintain its competitive advantage by creating further innovative products from its research and development activities and to gain appropriate reward for the lifetime of its inventions. Presently, Australia is a net importer of intellectual property with more than 90% of Australian patents granted to non-Australian residents². Further, less than 10% of Australian patents are active for the full statutory protection period. Therefore, it is essential that Federal Government represent and maintain a level playing field with respect to international relations and agreements, such that emergent industry sectors have a fair chance of competing at the international level.

2. Relationship with customers from other cultures

Dynamic Hearing executives and staff have travelled to North America, Europe and Asia to promote business relations and recruit customers. Dynamic Hearing has been appreciative of the help received by AusTrade representatives in overseas locations. However, Dynamic Hearing feels it would be of particular help to have some targeted marketing assistance in the form of grants especially at the early stage development and

² Extending Patent Life: is it in Australia's economic interests? Nicholas Gruen, Ian Bruce, Gerard Prior, Industry Commission, Commonwealth of Australia, June 1996

consolidation. Such a grant could be used to source expertise to develop an appropriate cultural marketing strategy suitable for the local customer and to support the process whilst it is being carried out.

3. Overseas competition

The hearing aid industry is dominated by six major manufacturers which together account for 80% of the market share of 6,000,000 units a year. The largest, Siemens of Germany, sells approximately 1,200,000 units a year. Three companies Oticon, GN ReSound, Widex, are Danish companies. Phonak is based in Switzerland and Starkey is the only major US representative. Since these companies have a large turn over, they each year they consequently have large budgets to spend on research and development. Dynamic Hearing has made a laudable impact in the market given its humble origins but aims to follow the Danish model where a country with a small population can produce world beating smart technology.

4. Relationship with Australian stake-holders

The overseas competition also has an impact in locally. Australian Hearing contracts a five year agreement with a manufacturer to supply approximately 100,000 hearing aids for Australian pensioners and children. Currently the contract is held by Siemens. The Office of Hearing Services oversees the supply of federally funded hearing aids to Australian part pensioners via private dispensers and audiologists (approximately 30% of the Australian market). These dispensers are free to recommend hearing aids from any OHS approved supplier.

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