



Adaptive: Dr Elaine Saunders

Welcome to the hi-tech sounds of normal life

Adrian Lynch

HEARING-IMPAIRED people around the world stand to benefit from Australian-developed software used in hearing aids.

Last week, the research centre behind the system, marketed by Melbourne's Dynamic Hearing, won the Prime Minister's Award for bringing it to commercial realisation.

The Adro software automatically adapts sounds to the dynamic range of the listener, using a digital signal processing chip. This supplies a hearing level users say is better, clearer and more comfortable.

The Adro system achieves its outcome by using loudness management rules across 64 audio channels instead of standard signalling compression, using only a handful of audio channels.

Production of the Adro-incorporated system has begun in France, where hearing aid maker Intrason has started marketing its Transparence range, emphasising the system's Australian origins.

Dynamic Hearing, a spin-off of the Co-operative Research Centre for Cochlear Implant and Hearing Aid Innovation, says its technology is not limited to hearing aids.

Chief technology officer Dr Peter Blamey says it could be used in any area where headphones are used to improve hearing.

Possibilities include defence and emergency services applications and bi-directional microphones in which messages are sometimes distorted by external factors.

Dynamic Hearings chief executive Dr Elaine Saunders says other hearing aid makers are expected to adopt the Adro system.

Adro's use of adaptive computations means soft sounds become more audible and loud sounds are more comfortable, she says.

Saunders says speech intelligibility is increased while overall sound quality is improved.

"Environmental sounds such as road traffic noise do not become overwhelming to the hearing aid user but are audible in the background," Saunders says.

Dynamic Hearing is having talks here and overseas about licensing its system for a range of sound-dependent devices. It is also having talks with other hearing aid makers.



Dynamic: Adro technique