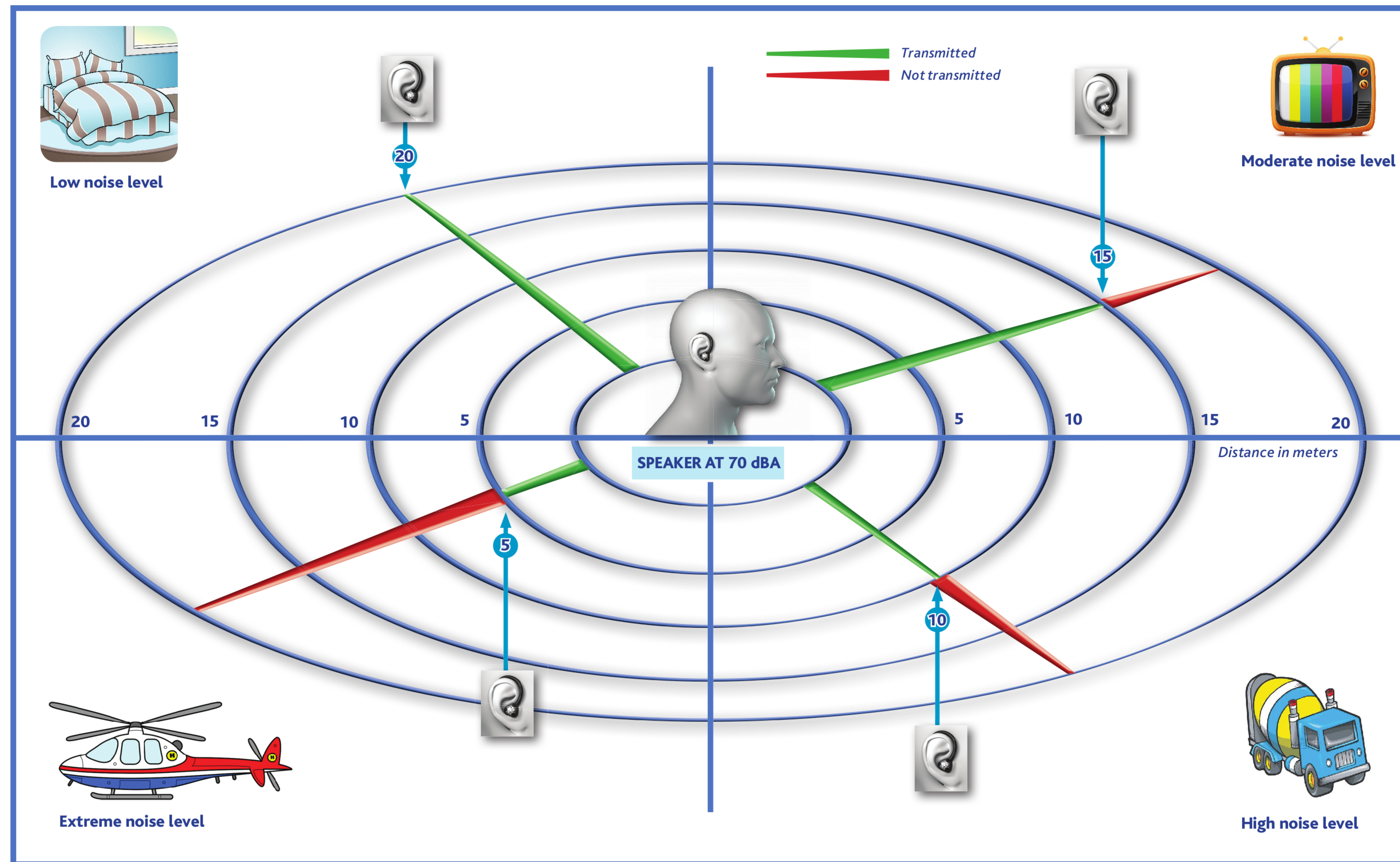


# TOWARDS A "RADIO-ACOUSTIC VIRTUAL ENVIRONMENT" IN NOISY WORK ENVIRONMENTS

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## I - MOTIVATION

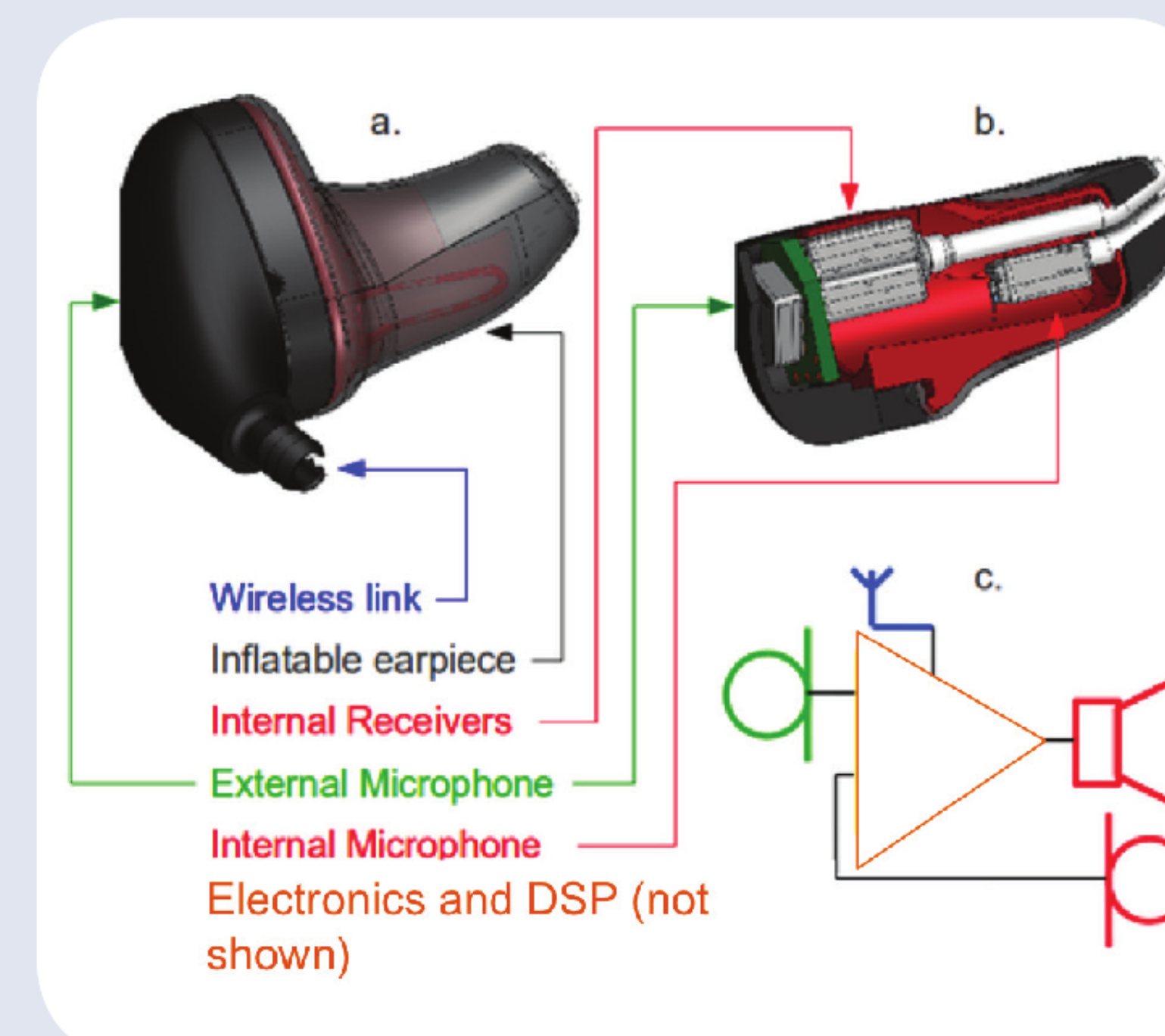
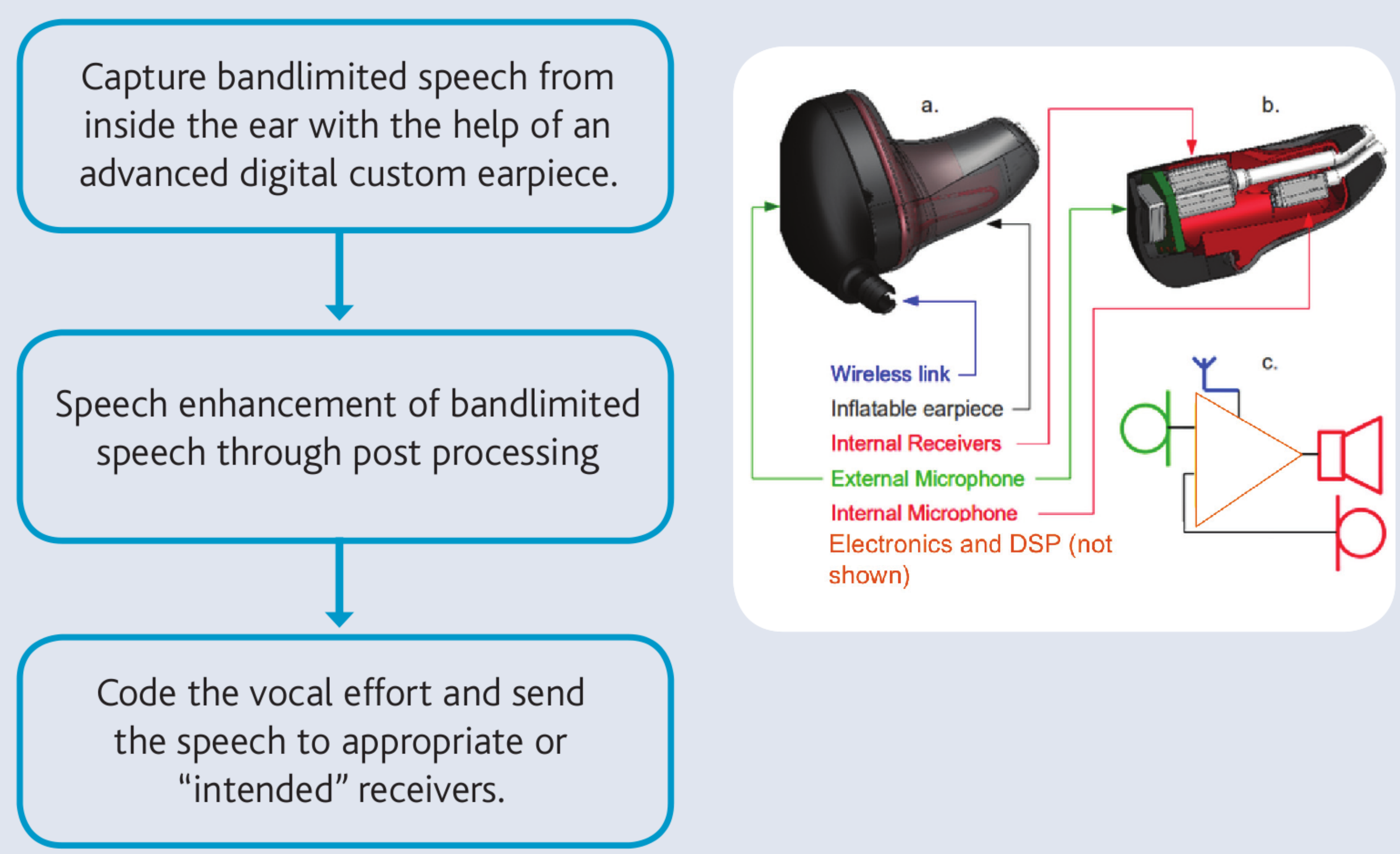
Workers in noisy environments must be provided with both adequate hearing protection and good communication. Current communication in noise compromises one factor for the other. There is a need for a device that provides intelligible communication for persons wearing hearing protection in noisy environments.

### METHOD OF COMMUNICATING NOISE

	Removing HPD	Using passively filtered HPD	Using a hand-held radio	Using an HPD with external microphone
<b>Issue 1</b> Compromising hearing protection	✓		✓	
<b>Issue 2</b> Proximity when communicating	✓	✓		
<b>Issue 3</b> The effects of background noise			✓	✓
<b>Issue 4</b> No designated receiver			✓	✓

ISSUES

## II- METHODOLOGY



## III- CONCLUSIONS

The Radio Acoustical Virtual Environment (RAVE) described will provide both hearing protection and good communication to workers in noisy environments. Undisturbed speech will be captured from inside the ear, enhanced, then sent to an appropriate radius of listeners. This year a live audio demo is presented to demonstrate how RAVE will encourage workers to wear their hearing protection.

