

# Facilitating hearing aid usage by means of gamification

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Hearing loss is an inevitable part of the ageing process from around 25-30 years old. As the average age of Europe's population is increasing, with expectations by 2050 of two fifths being over 50 years old, demand for assistive hearing devices also is expected to grow. Hearing Aid (HA) technology has dramatically advanced in the last 25 years, since the commercialization of the first digital hearing aid. Nevertheless, this technological advancement is not always accessible or accessed by the hearing impaired population. The majority of individuals with hearing aids use the device as if it was a standard analogue hearing aid, i.e. only for its amplification and equalisation features, and new algorithms are under-used or not exploited to their full potential. Hearing impairment in older adults can lead to frustration, low esteem, withdrawal and social inclusion. Further to these, in children, hearing loss affects speech and language development that impacts on academic achievement and future vocational choices.

Traditional gaming technologies have been successfully employed in non-leisure scenarios for learning and skill acquisition, empowerment and [social inclusion](#). The challenge of 3D-TUNE-IN is to facilitate the successful exploitation of existing, overlooked or neglected functionalities of hearing devices to optimise their potential thus greatly improving people's quality of life, and their interactions with other people and their surrounding environment.

Bringing together the relevant stakeholders from traditional gaming industries (SMEs - Reactify, Vianet, XTeam, Nerlaska), academic

institutes (Imperial College London, De Montfort University, the University of Nottingham, the University of Malaga); a large European hearing aid manufacturer (GN Hearing); and hearing communities (through Associations - Extra Care, Hearing Link, Action Deafness, Accesibilidad y Personas Sordas and Ente Nazionale Sordi), 3D-TUNE-IN will create a Toolkit and five different games - tailored to different target audiences and focusing on different situations - that will help end-users in optimising the usage of their hearing device. In doing so, 3D-Tune-In envisages to impact the lives of those suffering from [hearing impairment](#) - countering social exclusion and increasing life quality - while simultaneously increasing awareness about [hearing loss](#) among the general public. The project is expected to last 36 months, concluding May 2018.

Provided by CORDIS

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