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## **40 years of technical progress – is everything really new?**

I started working in hearing aid acoustics in 1984. The lecture will look at what was already available at that time: digital devices; in-situ measurements; rechargeable batteries; battery control; connectivity; feedback, noise and wind noise cancellation; switchable directional microphones. Due to technological developments, these functionalities have been significantly further developed for the benefit of the user. In 2016, Le Goff et al. they mentioned automatic microphone technology that does not require beamforming. In 2018, Keshavarzi et al. demonstrated how loud and quiet impulse noise can be reduced without reducing speech. Gue et al. described a patent in 2018 to prevent feedback without audible artefacts, amplification beyond the feedback limit is even possible. In 2020, Alickovic et al. described the advantage of deep neural networks. Man et al. succeed in optimising music transmission in 2021. Gade et al. reported artefact-free wind and handling noise suppression in 2023. 2024: Brændgaard et al. give details on sensors for detecting listening intention. Love et al. mention the integration of ACT measurement into the fitting software.