

# Beyond theory to practice: eAudiology Consensus Statement prepared by the Phonak Expert Panel in collaboration with Phonak

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Expert panel & Phonak collaboration





Recommendations for integrating eAudiology to reach new patients, enhance patient care and increase value of services

# How technology has changed the way we do things



# The Internet of Things

Refers to devices or objects that are connected to the Internet, like your smartwatch, Fitbit, or even your refrigerator. These devices are able to collect and transmit data via the Internet



Vehicle, Asset, Person & Pet  
Monitoring & Controlling



Agricultural  
automation



Energy  
consumption



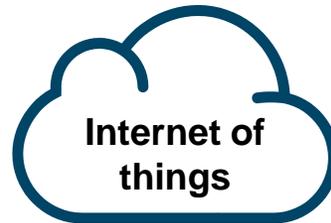
Security



Building  
management



Embedded  
mobile



Everyday things get  
connected for smarter  
tomorrow



M2M & wireless  
sensor network



Everyday things



Smart homes  
and cities



Telemedicine &  
Healthcare

Smart  
watches



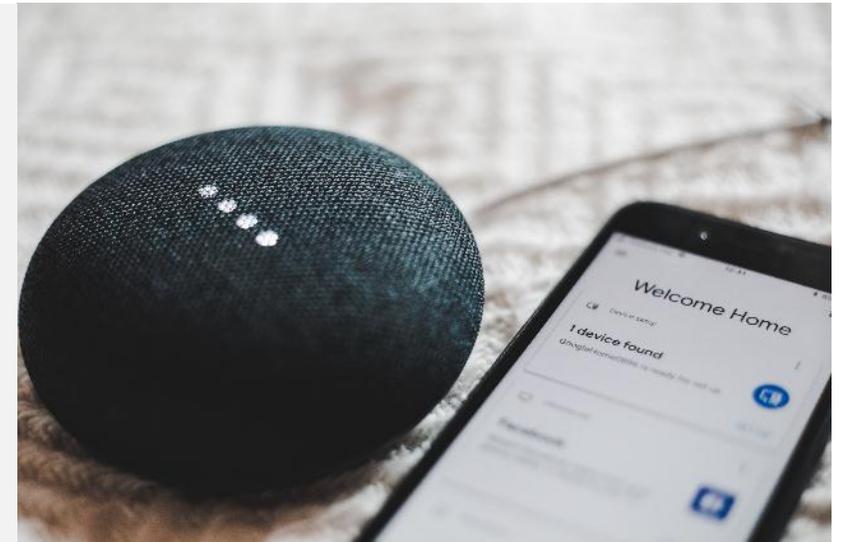
Connected  
drones



VR  
Glasses



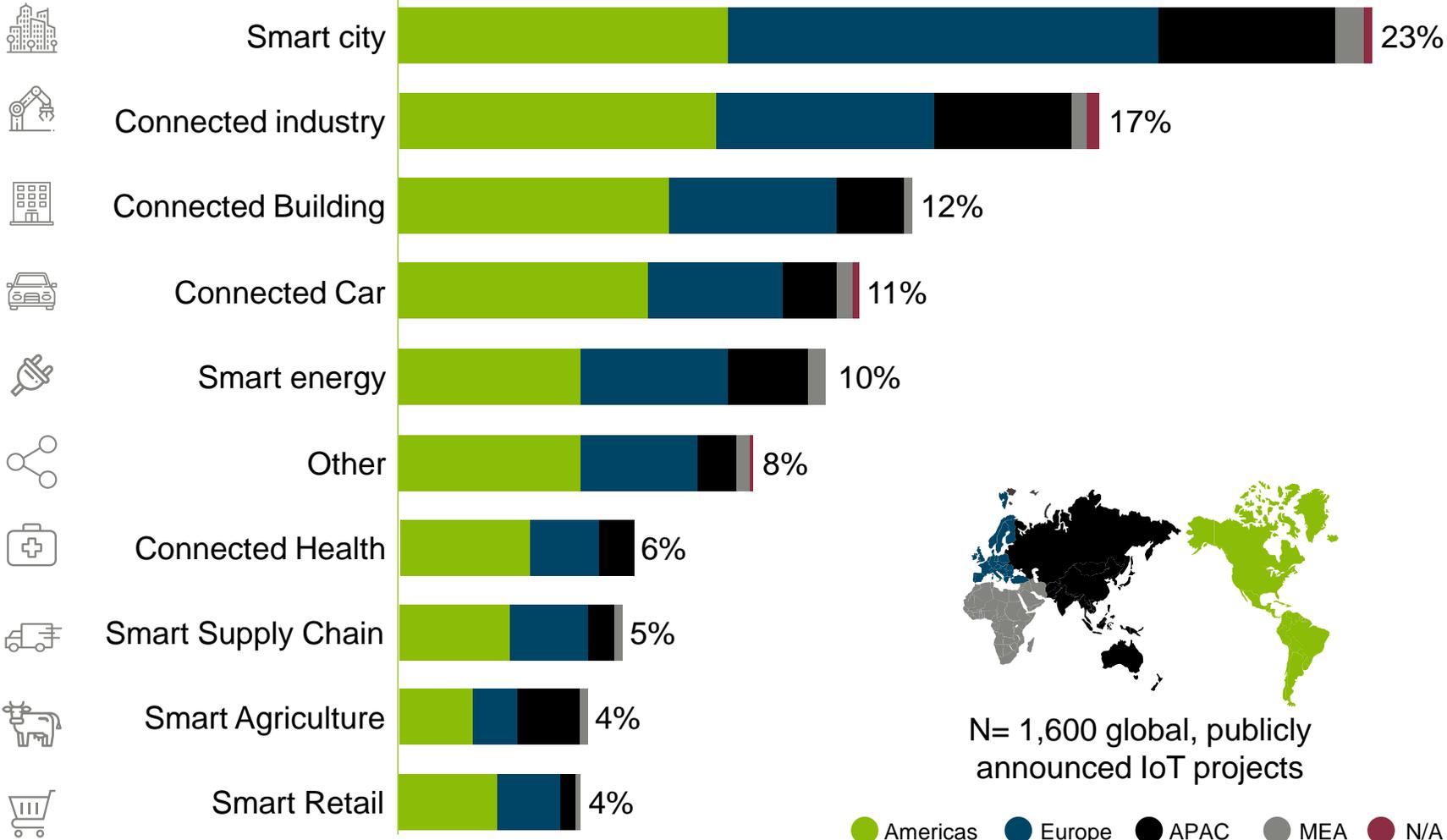
Smart  
Homes



**IoT segment**

**Global share of IoT projects<sup>1</sup>**

**Details**



Americas	Europe	APAC	Trend <sup>2</sup>
34%	45%	18%	↗
45%	31%	20%	↘
53%	33%	13%	↗
54%	30%	12%	↘
42%	35%	19%	↘
50%	34%	11%	↗
55%	29%	15%	↗
49%	36%	12%	↗
39%	26%	31%	↘
53%	35%	9%	↗

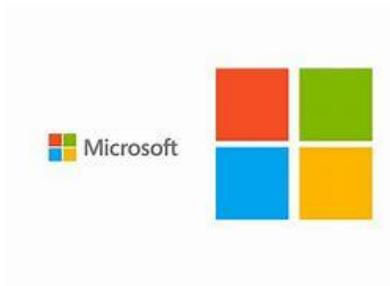


N= 1,600 global, publicly announced IoT projects

● Americas ● Europe ● APAC ● MEA ● N/A

# Internet of Things

- Think of the changes we have experienced in just the past 10 years



**THE  
FUTURE  
IS NOW**



## Audiologists' Attitudes Toward Telehealth Eikelboom, Swanepoel (2016)

- Surveyed 269 audiologists from 28 different countries
- Only 15.6% had used eAudiology
- Despite positive attitudes toward telehealth and associated technology, the low number of audiologists who have used eAudiology for services indicates limited clinical adoption

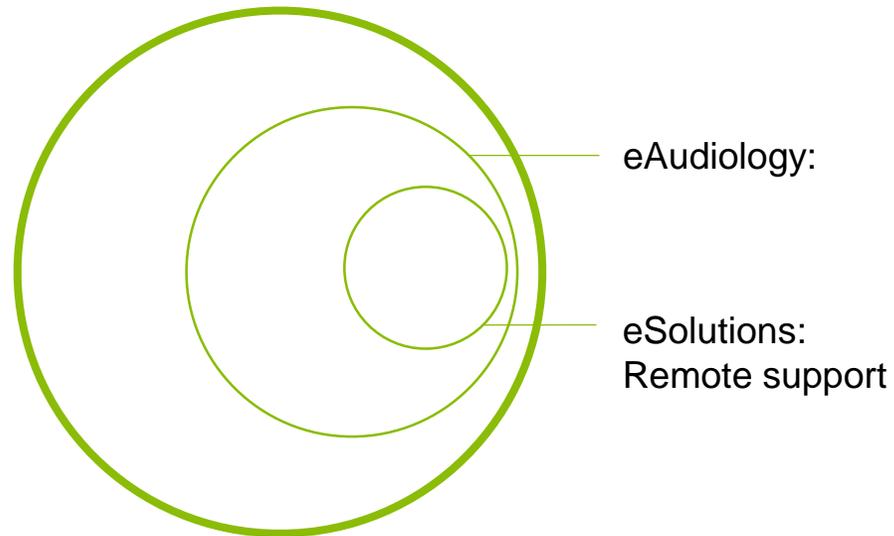
# Defining eAudiology



The evolution of terminology used to describe remote delivery of health services

“eAudiology” encompasses technologies and services that enable remote provision of audiologic care at each stage along the patient journey

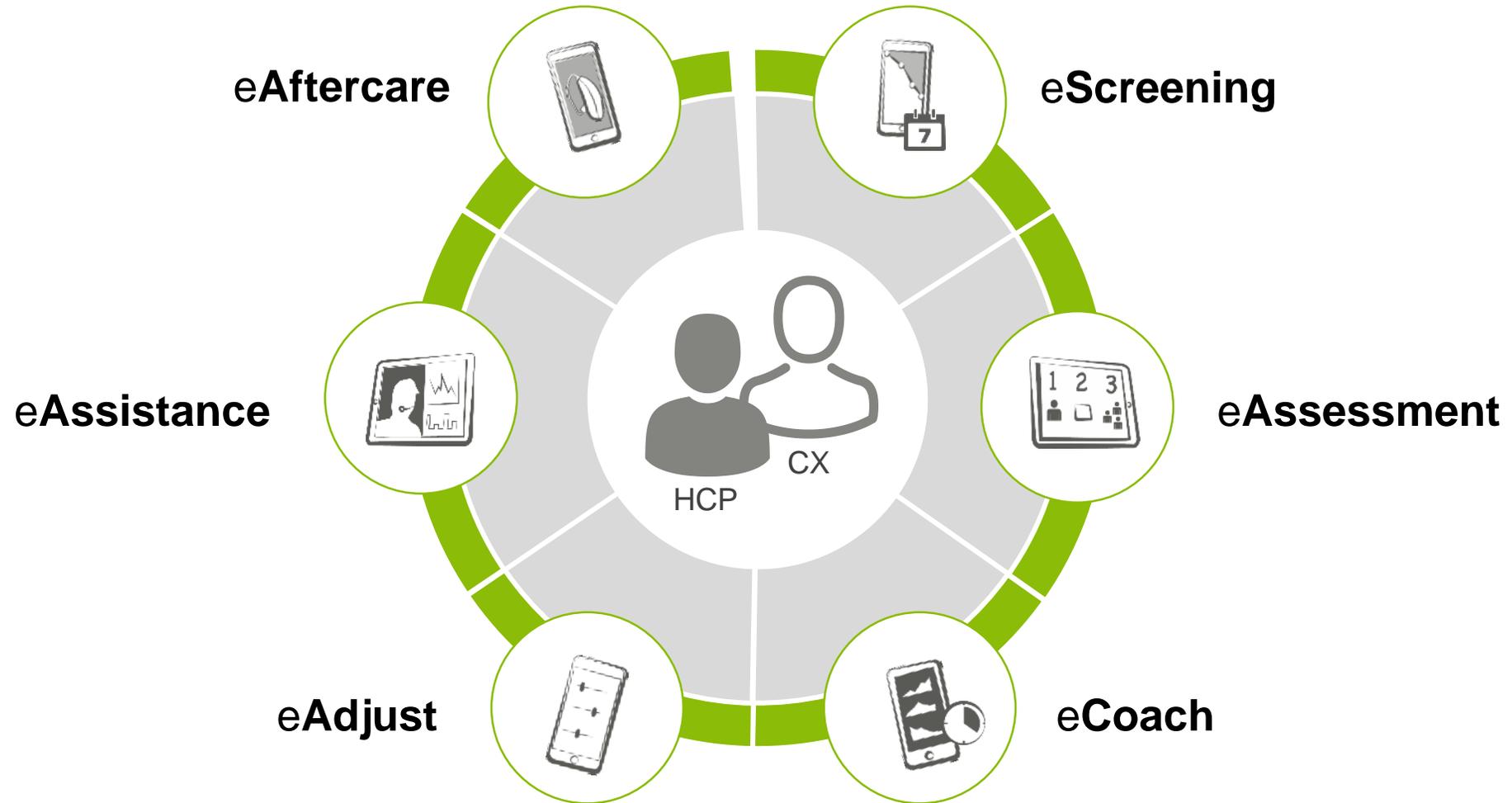
## eHealth:



Health and medical care with new technologies

A subset of eHealth that incorporates information, clinical implementation guidelines, resources related to hearing healthcare with new technologies and services

A suite of smart apps and solutions, is designed to seamlessly and securely connect HCPs with clients



# Barriers to eAudiology

## Patient barriers

Lack of confidence in accessing services

Fear of technology

Fear of loss of personal connection

## HCP barriers

Integration within day to day services

Fear of technology

Fear of loss of personal connection



# Barriers to eAudiology

## Family Centred Care approach

Obstacles are addressed when care provided from FCC approach. Respectful and responsive care according to individual preference, needs and values



- **Patients and families members prefer FCC approaches to Audiological care** *Singh, G. et al (2016)*
- **Provides support from others while trying to overcome technology fears**
- **Shared-goals create better outcomes** *Rathert, C. et al (2013)*
- **Family engagement increases confidence with managing hearing loss** *Singh, G. et al (2016)*

How can eAudiology  
benefit patients

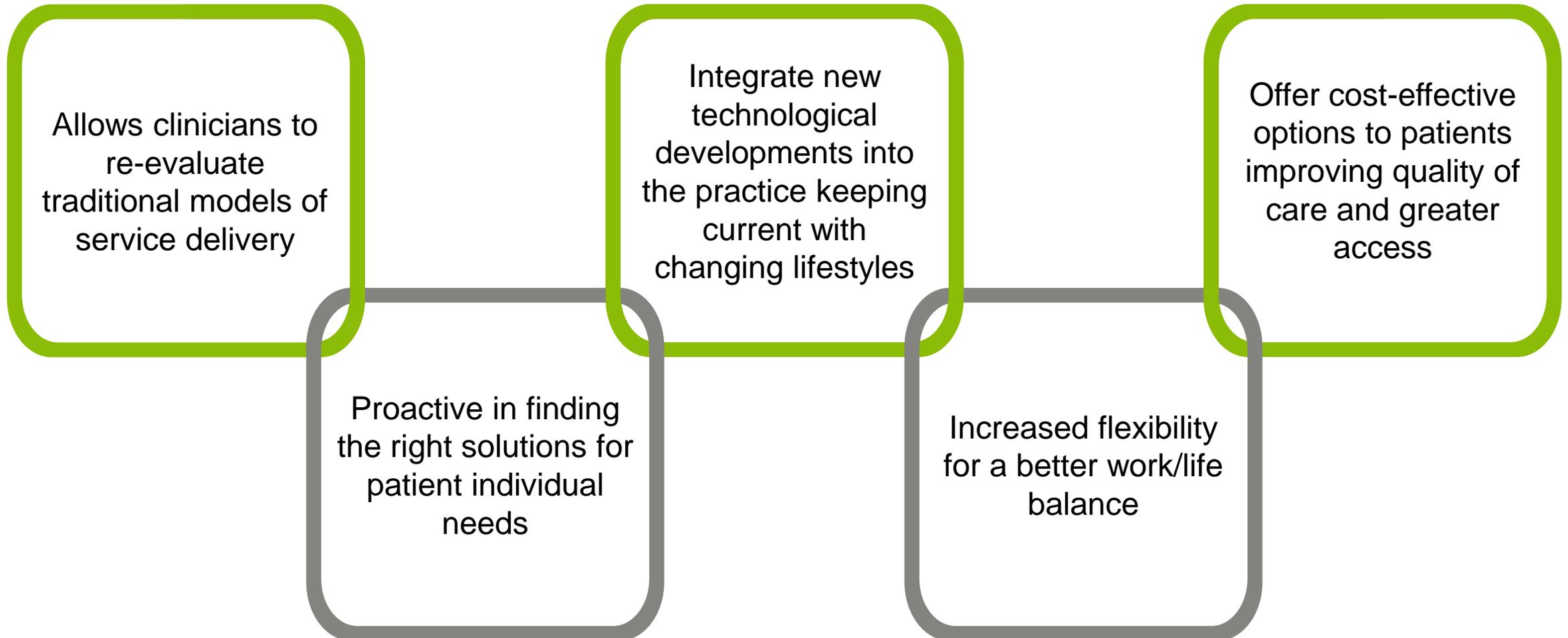


- **Overcome challenges of distance and access to care** *Swanepoel, D.W., Hall, J. (2010)*
- **May now be a preferred style of receiving services** *Carr, G. (2017)*
- **Accommodate busy lifestyles**
- **Facilitate the inclusion of family in the hearing management process by removing geographic barriers and appointment conflicts**

## How can eAudiology benefit HCPs



# Benefits to HCP



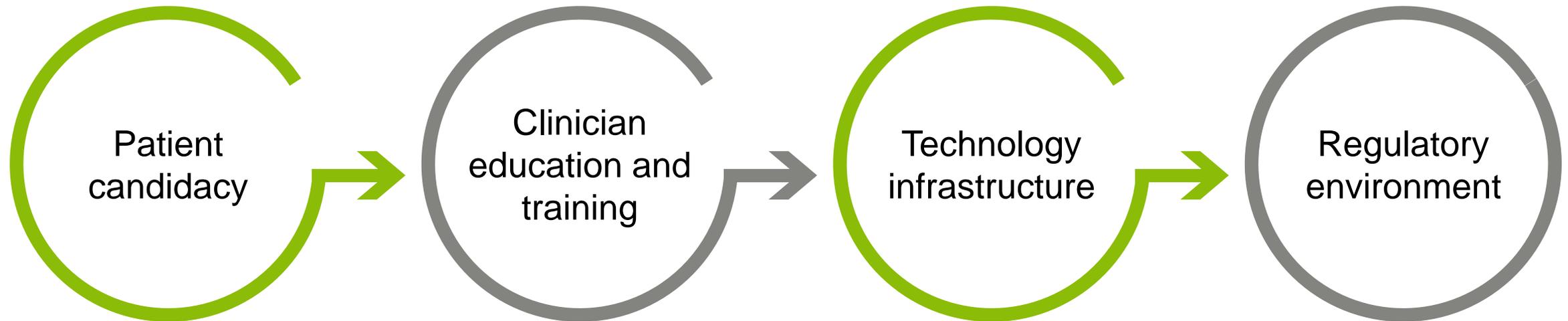
How can eAudiology  
benefit business practice



# Benefits to the Business Practice

- Distinguish the business form competitive threats such as OTC, internet sales and hearable devices
- Elevate the value of audiology services
- Expand patient reach
- Expand hearing aid fitting solutions (patients in their everyday settings)
- Potential cost savings, increased efficiency, improved workflow and patient satisfaction  
*Ballachandra, B (2017)*

## Steps towards eAudiology implementation



- Determine if the patient can be a candidate for eAudiology services before implementation
- Age, lifestyle, education, experience with technology and family involvement may influence patient candidacy ASHA (2018)

- Behavior change for the audiologist
- Must assess which tasks are appropriate for eAudiology
- Communication behaviors will be different.... What will be interpreted from non-verbal communication?
- Ongoing education process as learning will continue and services are being initiated.

- Need to be aware of equipment needs and wireless services are necessary for delivery of remote care
- Bandwidth?
- Home-based equipment?
- Compatibility?

# Regulatory Environment

- Licensure laws
- HIPAA
- Practice across borders

Future directions



Professional resources coming soon to our webpage.....

- eAudiology Consensus Statement
- Clinical implementation guidelines
- Patient profiling tool

#eaudiologyphonak

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Together,  
we change lives