### 4<sup>th</sup> International Accessibility Conference on Hearing Loops and Hearing Technology



Friday 6<sup>th</sup> to Sunday 8<sup>th</sup> October 2017 Berlin, Germany

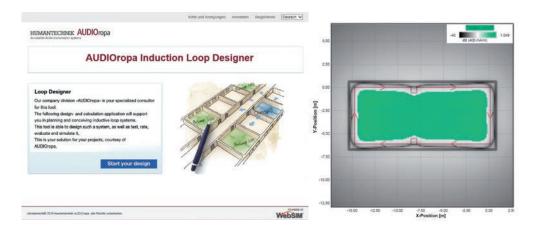








## Sound without restrictions: Audiologic systems for rooms of all sizes



- Loop technology (inductive)
- Radio transmission
- Infrared transmission

...for event locations, theatres, schools, churches

Get informed about the AUDIOropa planning software for professional inductive loop systems



# Welcome to the 4<sup>th</sup> Future Loops Conference in Berlin

**Welcome** / Dr. Ruth Warick

I am pleased to welcome you to the fourth international hearing loop conference and I wish to express my thanks to Deutscher Schwerhörigenbund e. V. for hosting it in lovely Berlin, Germany. The International Accessibility Conference on Hearing Loops and Hearing Technology, also known as Future Loops, brings together persons who have a hearing loss, their family members, friends and professionals from a variety of fields such as audiology, architecture, and engineering to exchange ideas, information and to advance accessible technology for persons with a hearing loss.

In September 2009 the first Hearing Loop conference was held in Winterthur, Switzerland, the brainchild of Siegfried Karg, a former board member of the European Federation of Hard of Hearing People which was a sponsor along with Pro Audito Winterthur and Pro Audito Schweiz, the Swiss national organization of hard of hearing people.

Hearing Loss Association of America put on the second conference

in June 2011 in Washington, DC, and Hearing Link, with EFHOH and IFHOH, hosted the third one in October 2013 in Eastbourne, England. I attended the last two conferences, and am thrilled to be attending the fourth one. I look forward, as I am sure you do, to an excellent programme of presentations and exhibits.

For many of us who are hard of hearing, technology is essential to communication and participation in all aspects of life. I got my first hearing aid at age 11 and at 24 years I paid for my first FM system which provided access beyond what hearing aids could provide. Many others have their own stories to tell and Future Loops is the perfect place to hear them.

At Future Loops, you will be invited to support the Berlin Declaration 2017 which acknowledges the importance of wireless technology for better hearing. Universal wireless systems need to work with all types of hearing aids! The Declaration will be unveiled at the conference and will be the sec-



Dr. Ruth Warick is the President of the International Federation of Hard of Hearing Persons and was first elected President in 2010.

ond time, since the first conference in 2009, that a statement is expected to emerge from the conference.

In closing, I wish you all the best in connecting with people, ideas and technology at Future Loops 2017!

> Sincerely yours, Dr. Ruth Warick IFHOH President

#### **Contacta's New Range of Hearing Loop Drivers**

This August, Contacta launched two drivers from their new V-Series range. These sleek, powerful drivers give you unparalleled performance and are created to be even easier to install and use.

Manufactured in the UK, Contacta's latest drivers are designed to produce supreme sound quality, with Automatic Gain Control and superior phasing performance. The output stage is based on technology proven in both the pro audio world and high end hi-fi sector to achieve life-like speech and first-class music reproduction.

The V-Series employs Class D technology and Digital Signal Processing together, making the drivers extremely efficient. Unlike many conventional drivers, these do not require fan cooling and have compact heat-sinks, resulting in quieter, lighter, and easier to maintain products.

Simplicity is key for Contacta. Their drivers are created with the installer and the user in mind, so every decision made in the design process ensures that the product works soundly for everyone. The new user interface, featuring a unique dial, makes adjusting the loop parameters effortless, while Euroblock connectors enable swift installation. Dual output drivers will be introduced for the first time into the range, simplifying purchasing and installing phased hearing loop solutions.



Contacta's V-Series will have 5 drivers in total with a variety of power levels and outputs to drive hearing loops wherever and however you need. The first to launch, with demonstrations at the Berlin Loop Conference, are the compact and powerful 5 amp drivers with single and dual outputs, the V7 and V12a. Visit www.contacta.co.uk for more details.

Adve



Renate Welter is the Vice President of Deutscher Schwerhörigenbund e.V., the German Association of Hard of Hearing People since 2003. She has been working for the aims and interests of Hard of Hearing People for nearly thirty years.

#### **Welcome** / Renate Welter

Dear guest of the Conference Future Loops,

On behalf of Deutscher Schwerhörigenbund e. V. I am very pleased to welcome you to the International Accessibility Conference on Hearing Loops and Hearing Technology in Berlin.

My enduring conviction is that accessibility in public places for hearing impaired people will expand when sound engineers, architects, audio/visual designers, installers and other responsibilities raise awareness of consumer interest and demand for this technology and when also hard of hearing can self-advocate more effectively for the wide availability of this technology within their own communities. DSB designed an extensive

and interesting program following the three Conference topics: Technical development, Experience and Motivation. The latest Loop technology will be presented as well as the many forthcoming alternatives, their scope of application and their benefits will be presented and discussed. This is what the motto *Future Loops* stands for

I would like to thank all speakers, exhibitors and other involved persons for their contribution and wish all attendees the best in enjoying this Conference in Berlin.

Yours

Neuste Welfen



A welcome from **Verena Bentele** the Federal Government Commissioner for Matters relating to Persons with Disabilities on the occasion of the 4<sup>th</sup> International Accessibility Conference on Hearing Loops and Hearing Technology

Ladies and Gentlemen, dear Future Loops participants,

It was a great pleasure for me to become the patron of your international conference, and I look forward to an inspiring exchange of ideas and opinions.

You chose Berlin as the venue for your fourth conference: a city, I may say, of particular diversity, and that applies to its sounds too. This is a city whose residents and visitors are colourful and diverse, surrounded by noises that are just as varied. And there are countless event locations here: from lecture halls, museums and churches to theatres, cinemas and concert venues. The acoustics in these spaces can often create very specific challenges for people with hearing impairments.

But nowadays technological opportunities also play a crucial role in determining the way in which people with hearing impairments perceive their acoustic environment. And induction loop systems, for example, enable them to listen to speeches and presentations with clear acoustics and without distracting sounds, irrespective of the space they are in.

Therefore I think it makes sense to consider induction loop systems at the very start of the planning process for publicly-accessible spaces, so that people with hearing impairments are able to participate too. The inclusion of DIN 18040 in the list of technical building regulations means that this standard now applies and illustrates what is meant by accessibility to public spaces and how these can be realized on a technical level. The standard provides practical examples which facilitate greater design freedom and allow plans to be drawn up based on

individual user requirements. It specifies problem-solving approaches which planners can use to ensure that the minimum requirements of barrier-free construction are met.

However, in my opinion it is not enough for the arguments for warning, orientation, information and guidance systems to be considered only on a case-by-case basis. I feel this regulation needs to go further. We also need a commitment to the "obligation to create barrier-free conditions".

I am very much in favour of equipment and information systems being designed in line with the "two-sense principle", whereby at least two senses must be engaged. The "two-sense principle" means, for example, that visual information must also be complemented by tactile or acoustic information. As a blind woman myself, I need warning signs in acoustic form, and people with a severe hearing impairment require additional visual assistance. Amplification provided by technical aids is a further option. However the important thing now is that we also implement the standard on accessibility.

With Article 9 of the UN Convention on the Rights of Persons with Disabilities Germany undertakes to provide access to the physical environment, means of transport, communications technology as well as to public facilities.

The Equal Opportunities for Persons with Disabilities Act (BGG) also aims to facilitate equitable and accessible participation for persons with disabilities.

The Arbitration Service (pursuant to Section 16 BGG), located in the offices of the Federal Government Commissioner for Matters



relating to Persons with Disabilities, is a place where citizens can now find someone to support them when public authorities fail to fulfil this duty.

This is a great achievement for all persons with disabilities as we head towards a barrier-free, inclusive society.

I would like to think that we won't stop there and that a next step will see the private sector committing itself to this obligation. And that is why I will keep working to ensure the private sector commits to accessibility - not just nationally, but ideally across Europe too, by harmonising accessibility requirements in a European guideline which is currently being drafted, the European Accessibility Act. Going forward, I think it would also make sense if in future the Arbitration Service, which already handles cases arising from the BGG, also dealt with arbitration procedures resulting from the General Equal Treatment Act (AGG). Because, as I said when the BGG was amended:

"My wish is that very soon arbitration for people with disabilities will also apply to civil law matters. So here too: there is always more work to be done!"

I wish you all an inspiring conference!

Yours

Verena Bentele

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The Conference will provide a rare chance for suppliers, service providers and specialists across the globe to collaborate and expand knowledge and insight concerning current and emerging hearing loop technology. It also provides an exceptional opportunity for hard of hearing people to learn about the benefits offered from hearing loops and related technology. In pursuit of this goal, all attendees will be provided with tools and information to help them more effectively advocate for the wide availability of this technology within their own communities.

#### **Technology and Access in Public Places**

The overall aim of the conference is to have a look at the latest Loop technology and discuss the many forthcoming alternatives and its benefits. Our aim is to look ahead.



### **Congress Program**

The Congress will take place at the convention center Hotel Steglitz International in Schloßstraße/Albrechtstraße 2, 12165 Berlin.

#### Thursday, 5<sup>th</sup> of October 2017

19.00 – 21.00 Welcome evening for International guests (Room Lankwitz)

#### Friday, 6<sup>th</sup> of October 2017

Room Ballsaal	Room Lankwitz
10.00 – 11.00 Opening ceremony and exhibition opening	
11.00 – 12.00 Keynote speakers	
13.00 – 14.30 Technology talks	13.00 – 14.30 Everyday life talks
14.30 – 15.30 Coffee break	14.30 – 15.30 Coffee break
15.30 – 17.30 Experience Talks	15.30 – 17.30 Technology talks
17.30 – 18.00 Intermission	17.30 – 18.00 Intermission
10.00 – 17.30 Exhibition at the Foyer and Room Atrium	
18.00 – 22.00 Sight Seeing Tour and Dinner (for participants who registered in advance)	

#### Saturday, 7th of October 2017

Room Ballsaal	Room Lankwitz
09.00 – 10.30 Technology - IHLMA panel discussion	
10.30 – 11.00 Coffee break	
11.00 – 12.30 Technology talks	11.00 – 12.30 Special topics/standards talks
12.30 – 14.00 Lunch break	12.30 – 14.00 Lunch break
14.00 – 16.00 Final ceremony -	
Keynote Speaker, Roundtable	
Discussion, Farewell	
00 00 16 00 Exhibition at the Edver and Poon	A trium

09.00 – 16.00 Exhibition at the Foyer and Room Atrium 19.00 – 22.00 Come together event (Room Lankwitz)

#### Sunday, 8th of October 2017

09.00 Guided tour of the Reichstag Building (only for participants that registered in advance) & Exploring Berlin on your own

We attach a guide for discovering interesting things around the city. It's very easy to get by.









### Roger - Gespräche uneingeschränkt genießen.

Für Hörgeräteträger ist nichts so wichtig, wie effektiv kommunizieren zu können. Sprachverständlichkeit in jeder Umgebung – ob im Restaurant, bei der Arbeit oder zu Hause – ist eine wichtige Voraussetzung, um das Leben rundum genießen zu können.

In geräuschvoller Umgebung und auf Distanz überbrücken moderne Wireless-Mikrofone Sprachbarrieren und bieten damit einen deutlichen Zusatznutzen. Die speziell auf diese Herausforderungen zugeschnittenen Roger Lösungen öffnen den Hörhorizont für Menschen mit Hörverlust.



### The Speakers

#### Volker Albert

Deutsche Tinnitus-Liga (DTL), President Netzwerk Hörbehinderung Bayern (NHB), Speaker Österreichische Tinnitus-Liga (ÖTL) Honor member Direktmarketing-Fachwirt Bayerische Akademie for Werbung (BAW) Major a .D.

## Successful communication only with emotions? How does it work for HOH people?

When talking with other people, it is very important to communicate your own emotions. A conversation succeeds better if one opens oneself emotionally and responds to his feelings, needs and desires. Moreover the quality of our interpersonal relationships is determined by communication. For this, we need hearing assistance of technical and human kind - both in work as well as in the private life. With language emotions are transmitted by harmonics (overtones). For hearing aids, the great variability of hearing is a problem that has not yet been solved, overtones are not transmitted.

Listening, however, controls language and emotions. The emotional access through the language is often not accessible to HOH people. The presentation will show how to find ways to get access to the emotions through facial expressions, gesturing and body language.

#### Jakob Stephan Baschab

Jakob Stephan Baschab (50) joined the Federal Guild of Hearing Acousticians (biha) as Director General in 2002. Prior to joining biha he worked for the Confederation of German Employers' Associations (BDA), where he lastly was Deputy Director and Managing Director of various subsidiaries. Jakob Stephan Baschab holds a degree in Political Economics and Business Administration. He is also an honorary member of numerous supervisory and advisory boards in German economy and judge of honour at social court.

### The Education of Hearing Acousticians in Germany

Hearing technology alone is not enough to compensate for individual hearing impairments. What is far more important is the service behind it, the service of fitting the systems perfectly. Qualified experts are needed. This inspired many audiologists to visit the Audiology Campus of the National Voca-

tional School and the Academy of Hearing Acoustics in Luebeck. The worldwide demand for top quality training as hearing acoustician, as in the German system of dual education, is increasing. Its mix of theoretical knowledge and practical skills makes the German system a guarantee for well-trained hearing acousticians and thus for high-quality hearing care.

#### Abraham (Avi) Blau

Vice-President of IFHOH, Israel

Mr. Blau is one of the founders of "Bekol - Organization of Hard of Hearing People in Israel". He was the chairperson of this organization for several years. He is also the Chairperson of the Schlesinger Fund for the deaf and HOH persons.

In his profession Mr. Blau is en Electronics Engineer, BioMedical engineer and an MBA. He is also a certified advisor for accessibility for persons with disabilities.

Using technology to help HoH people is one of Mr. Blau's passions. He is involved in several technology developments in these fields. Legislation for the equal rights of HoH people is very important to him as well.

Mr. Blau is dedicated to promoting equal rights and equal opportunities for HOH people everywhere in the world, to spread knowledge about hearing issues, to raise awareness to the need for inclusion of HoH people in society, to help national organizations to advocate and promote this inclusion in their countries, to promote the use of hearing aids and assistive listening devices and to make general communication devices like cellular phones, tablets and personal computer more accessible

### Why the New Smartphones make Interferences to Hearing Aids?

In the last years, smartphones got bigger screens, higher resolutions, more processing power, and bigger batteries. This trends leads to higher currents flowing inside the smartphones. With higher currents comes higher interferences to hearing aids and cochlear implants. These interferences are different from the cellular transmission (CDMA, GSM, etc.) interferences.

Testimonials will be presented from persons who had disturbing interferences from their smartphones. Some tips will be given on how to check interferences and how to select new smartphones. We will also explain how to improve the rating process of cellular phones and how the manufacturers can build phones with less interferences to hearing aids and cochlear implants

#### Sam Burkinshaw

Sam studied Broadcast Audio Design at Ravensbourne College; prior to joining Ampetronic he traveled around the UK and Europe as a live sound engineer, having worked on a variety of projects including; theatre, festivals and corporate sporting events. He joined the Ampetronic engineering and system design team in 2013 to further his career and gain experience in audio electronics manufacturing and assistive listening systems.

As a move that embraces his passion for travel, Sam now provides training and support for Ampetronic customers around the world. He plays a pivotal role in the development of Ampetronic's technical training materials and has been involved in the evolution of the company's new system design and measurement tools.

### Standards: What the IEC 60118-4 & 62489-1 Standards define and how they help us

Since the inception of IEC60118 there have been multiple iterations, despite the aims remaining consistent, the method of testing standard compliant systems has been refined.

Sam will review each of the key requirements dispelling some common misconceptions and provide a simple breakdown of the aims of the IEC 60118-4 and 62489-1 Standards, and how they can be leveraged to the advantage of specifiers, installers, venue operators and hearing aid users.

#### Liliana Cardone

Liliana Cardone is hard of hearing. She has been familiar with the hearing loop technology, since 1974. She has kept herself updated on the newest developments on the hearing loop technology for hearing impaired people. She has been the president of the "Associazione Ligure Ipoudenti - sulle ALI dell'udito Onlus" (Ligurian Hearing Impaired Association) - SORI (Genoa) since 2005. Often she collaborates with other Italian hearing loss associations on important accessibility projects or participates as speaker in different conference.

### The spread of the hearing loop in Italy, Obstacles and opportunities.

We have verified that in Italy there is little or no knowledge of the technologies that could be accessible to hearing loss people. Twelve percent of the Italian population is affected by deafness and this percentage is still increasing.

The goals of A.L.I. Association are: to promote the diffusion of the hearing loop system in all public places and to spread the technologies that can improve the quality of the lives of hard of hearing

people. Moreover, to take initiatives to inform authorities in charge on the requests of necessary interventions to overcome communication barriers, which cause difficulties to people with hearing loss. In the province of Genoa there are 17 venues with hearing loop. This is not much, because it gets only a small amount of attention as well as insufficient knowledge about the issues concerning these topics.

#### Carsten Daugaard

Senior Consultant, Force Technology, Technical-Audiological laboratory

Educated M. Sc. E.E. from DTU, The technical university of Denmark in 1997, with specialities in acoustics and programming. Since then employed as consultant at the Technical-Audiological Laboratory (TAL) in Denmark. TAL is a part of DELTA, now merged with FORCE Technology, both so-called GTS institutes; government supported institutions with the purpose of making new technology available for the industry.

The main work areas have been electro acoustical testing of hearing aids and assistive devices, as well as consultancy in acoustics and technical audiology for the hearing health care. Knowledge communication of technical challenges has been a major part of the consultancy work. Since 2007 associate professor at University of Southern Denmark, teaching technical audiology, and helping students with their projects.

### Technical evaluation of wireless communication devices

This presentation reports from technical evaluation of assistive listening devices in Denmark. Technical Audiological Laboratory has in many years performed technical measurements on various devices as a part of our consultancy work for the Danish health care. Some of these devices are: Neck loops, Hearing aid compatible telephones, and tele loop systems of different size. This talk will present the technical measurements that are performed on the devices and the origin of these requirements. Considerations of the correspondence between the objective measurements and the user experience will be given. Ideas of future technical measurements to evaluate wireless devices will be presented.

#### Peter Dieler

Peter Dieler works in counseling for hearing-impaired people as a leading Audio therapist in the MEDIAN Clinic at Burggraben, a specialist clinic for hearing impairments, tinnitus and dizziness in Bad Salzuflen. He is also active in the training and further education of hearing aid acousticians, special education teachers, and Audio therapists. He works with hear-

ing-impaired children, adolescents and adults to develop tools to support their acceptance of their hearing impairment and to adequately deal with difficult communication situations. Particular attention is given to the use of technical tools in his work.

Audio Inductive Loop Systems AILS – A point of view from the perspective of those affected.

Audio Inductive Loop systems seem to have lost their importance in the age of high tech alternatives. Better and, above all, low noise solutions ensure that the classical induction coil is displaced in technical hearing systems. The viewpoint of the affected parties and, above all, the users, is often underrated in the discussion about the meaning and usefulness of "older" technology. The lecture is intended to take a look at the user's view of induction loops systems.

#### Hildegunn Fallang

Political advisor in the HLF (Norwegian Association of the Hard of Hearing).

#### The Norwegian Hearing Loop Guerilla.

2016 was a "looping year" for HLF. Our campaign "The Hearing Loop Guerilla" had voluntaries all over Norway checking public buildings and advocating for hearing loops. The main objective with the project was to improve hearing loop accessibility in public buildings.

About 30 of HLFs 170 local chapters participated and a total of 205 public buildings had been checked during the six months the campaign lasted. 40 percent of town hall meeting rooms did not have a functioning loop, which Norwegian law requires. This led to several newspaper articles and some local governments installed loops after the HLF visited.

The participation in the campaign was impressive considering our member base has a high average age and this campaign had an activist nature. The visibility in the media was excellent and we believe this campaign contributed to a wider knowledge of loops and better accessibility in public buildings. We hope other organizations can learn from our experiences.

#### Dieter Fricke

Claus-Dieter Fricke is Director of Audiology at GN Hearing GmbH. Dieter Fricke has been working for over 30 years. Since 2006, Dieter Fricke has worked for GN ReSound in Germany, in the areas of product management and audiology at the international GN ReSound Group - respectively for its predecessor

company Audium BV and GN Danavox. He was Head of Sales & Marketing at GN ReSound in the Netherlands as well as International Product Manager of the company headquarters in Denmark. He had originally graduated as a technician for industrial electronics in the Netherlands.

The 2,4 GHz Initiative of Hearing Aid Manufacturers

#### Bernadette Fulton

Audiology Manager at Phonak Communications AG Switzerland.

She trained in Clinical Audiology at Melbourne University (Australia) She has extensive clinical experience in audiology, including aural rehabilitation, hearing aids and diagnostic audiology in private and government clinics. In 2004 Bernadette moved into research and development. In 2015 she joined the team dedicated to adults with severe to profound hearing loss at Phonak Communications in Murten as Audiology Manager.

The Simple Way to Hear More

If you are getting a cochlear implant in one ear, consider what you will use on your other ear.

The Naída™ Link CROS Solution

Jill hears with a cochlear implant in one ear but does not have any hearing in her other ear. She uses a Phonak Naída™ Link CROS to send sounds from that side to her Naída Cl so that she can hear from wherever she wants.

Further information www.AdvancedBlonics.com

### Latest developments in hearing aids for people with severe to profound hearing loss.

Wireless technologies such as telecoil and remote microphones; significantly improve speech understanding in noise and over distance, where adults with severe to profound hearing loss face significant challenges. Special challenges arise for people with large degrees of hearing loss because of changes in the auditory abilities compared to those with lesser degrees of hearing loss. The result is a huge variability in the ability to understand speech even when quiet and when there is no difference in the amount of hearing measured by the audiogram. This paper will outline some new developments in hearing aids which can help even more. One example is hearing aids which switch to directional microphones setting at the same time as using a remote microphone. A new study shows that this results in improvements in understanding speech when listening to a speaker nearby (hearing aid microphone) and when the speaker is in the distance (remote microphone). The performance of small and versatile remote microphones can be enhanced when the hearing aid and remote microphone function together seamlessly.

#### Lise Hamlin

Director of Public Policy, Hearing Loss Association of America

Lise Hamlin joined the Hearing Loss Association of America's (HLAA) national staff as director of public policy in 2008. Ms. Hamlin, who has a hearing loss herself, has worked as an advocate for people with hearing loss for 20 years. She currently represents HLAA on U.S. federal advisory committees, industry advisory groups, and consumer coalitions. She has also taken part in developing, maintaining and presenting training programs on hearing assistive technology and on emergency preparedness. Ms. Hamlin fields emails and calls daily from consumers with hearing loss who experience barriers to employment, technology, access to public places and telecommunications access and works directly with them to help overcome those barriers. Loops are one way consumers can overcome those barriers. Ms. Hamlin has been recognized with a national Oticon Focus on People award, a Spirit of SHHH award and the F. Michael Taff award from the Human Rights Commission of Rockville, MD.

### Hearing Loss Association of America and Looping in America

Hearing Loss Association of America, our members and our chapters continue to work both locally and nationally to ensure more Americans get the benefits of hearing loop systems. We continue to see requests for information about hearing loops in our national office. We are also seeing activity across the country to introduce legislation that would require the dispensing of hearing aids with telecoils and in support of legislation that would require the use of hearing loop systems in public places. This presentation will cover the latest activity on hearing loops in America.

#### Johan Hammarström

Johan Hammarström is the CEO and owner of AB Transistor Sweden – a Swedish hearing tech company originally founded in 1953. Johan, himself hard of hearing, suffered from stigma in his youth but later became active creating awareness about hearing loss. Johan dreamt about becoming a pilot as a child and as a 21 year old he struggled to achieve medical approval for a commercial pilot license. He finally managed and could complete pilot education. In 2006 he circumnavigated earth in a small airplane to fulfill his dream, prove much is possible and inspire others to live their dreams (World Flight for Hearing). The meetings with hard of hearing people all over the world inspired Johan to work in the field of hearing and today he runs a business that represent a wide portfolio of products that facilitate for people with hearing loss.

#### Making hearing loops visible

Johan will present T-SIGN – the first main stream active hearing loop sign that visualizes for everyone how the hearing loop is functioning. Johan will share a few memories when hearing loops have saved him, but also describe the disappointing moments when hearing loops have not functioned as expected. In the presentation Johan will take the audience on the journey from idea to a main stream product and the challenges that have been encountered on the way.

#### Benjamin Heldner

Senior Product Manager at Phonak Communications

Ben started working with Phonak in 2002 while he was an engineering student at the university of applied science in Biel / Bienne, CH. After graduating as engineer in micromechanics, he started working for Phonak full time. He led various technical and clinical studies and contributed to the development of the new Roger wireless protocol that replaced the FM technology. As a senior product manager he is now responsible for Roger wireless microphones that can be used by adults in most challenging listening situations such as restaurants, bars and any other place with noise or lot of reverberation. Ben has a profound hearing loss and wears a cochlear implant on the left side and a Hearing aid on the

right side. He uses wireless technologies every day, making him an expert in this field.

### Combining the telecoil with advanced wireless technologies

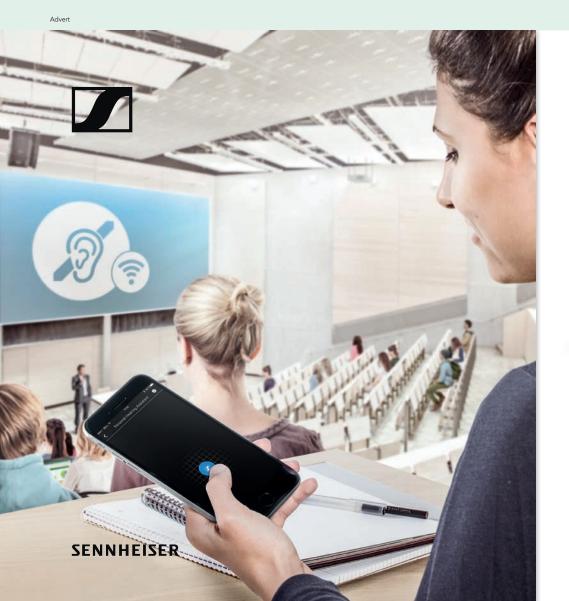
Individuals and groups have different requirements for a wireless communications system. There are an increasing number of options available to people with hearing loss, but which one is best for which individual or group? This paper will present a number of considerations for selecting the appropriate technology for different situations. Loop systems and advanced wireless technologies can complement each other. New advanced wireless technologies can offer flexibility, portability, reliable sound transmission and can be personalized to suit an individual or group.

#### Jonathon Hoskin

Jonathon is Ampetronic's Business Development Engineer for the Asia Pacific region and other territories within Europe. He has a Bachelor of Sciences, graduating from Demontford University, with a Degree in Audio, Technology and Innovation. Jonathon has worked as a professional audio engineer for the BBC and several theatres in early career; he joined Ampetronic, manufacturers of Hearing Loops, as a system design engineer in 2011. Utilizing the knowledge and skills developed through at Ampetronic, He has become an expert in ensuring that Hearing Loop system provide an excellent audio experience for their users and now shares this experience with system designers and installers in training workshops around the world.

### How the digital revolution benefits Hearing Loop solutions

Hearing Loops have been available for the benefit of hearing aid and cochlear implant users for decades and have vastly improved over the years, however, the analogue technology at their core has limited the applications that it can be used in. Jonathon will provide an overview of the features and benefits of the new generation of digital Hearing Loop drivers, explaining how networking, remote control interfaces and fault reporting improve quality and reliability, and how utilizing smart devices improves set-up and commissioning and reveals new ways for users to access the audio.





## MobileConnect Assistive Listening over WiFi

Adjust the audio signal to your individual hearing needs using the Personal Hearing Assistant. Seamless operation and integration in standalone mode or in existing infrastructure.

sennheiser.com/mobileconnect

#### Matthias Jöde

Matthias Jöde completed his training as a hearing acoustician after finishing studies at the University of Applied Science in Lüneburg. After further training he was employed as an acoustician and also has six years' experience as a Senior Sales Manager at an advertising and communication agency in Hamburg. As of April 2015, Mr. Jöde has been representing the wireless solutions of Roger and Comfort Audio as the Regional Sales Manager for Phonak, a division of Sonova GmbH, in Northern Germany. In addition to acousticians, Mr. Jöde also consults clinics, special learning schools, regular (inclusion) schools and CI centers. Further networking partners include offices and special services for integration.

### Hearing at work – technology for barrier free listening

Working adults with modern hearing aids often refer to lower speech understanding in complex listening situations. In a working environment, barrier free listening is the key to full participation and performance in meetings or in telephone conferences. As many working places have become "open plan offices" hearing is even more difficult due to higher background noise. Examples of overcoming the obstacles of distance/background noise will be shown through the latest wireless technologies. Furthermore, connection options to several audio sources (phones, internet, VoIP...) will be presented, relevant institutions which support full access to speech will be displayed and experiences shared.

#### Siegfried Karg

Siegfried Karg, BD, ThM, born 1946 in Oberurbach, Germany. Theological studies in Hamburg, Germany, and Switzerland, Fellow at the Institute for Social Ethics of the University of Zurich (1974-1980). Pastor and Pastoral Counselor in Adliswil and Winterthur, Switzerland (retired 2011). Vice President European Federation of Hard of Hearing People EFHOH (2002-2010), Convener of the First International Hearing Loops Conference in Winterthur in 2009, Board Member of the Swiss Hearing Loss Association pro audito Switzerland (2003-2012), Honorary Member, President of pro audito Winterthur (1993-2015), Member of the International Federation for Pastoral Care to Hearing Impaired Persons IVSS-Churchear since 1994, Member of the Swiss Acoustical Society SGA-SSA, presenter at international conferences, author of magazine articles about hearing loops (since 1988), book author.

#### Hearing Loops: Past, Present, and Future. A historical and international perspective

Although Audio Frequency Induction Loop Systems (AFILS) have been used for quite a long time to benefit people with hearing loss, no other technology has yet emerged which is as universal, cost effective, requires no extra equipment, has no time delay, does not have to be "paired" and is as popular with consumers as hearing loops. Three major points have substantially improved the loop technology: 1. special current loop drivers, rather than voltage drivers, give an even frequency response especially in high frequencies important for speech intelligibility. 2. The new loop standard of the International Electro technical Commission (IEC) in 1981 guarantees high quality. 3. "Phased array" loops improve sound quality in large venues. Three international conferences have been held to expand the use of hearing loops internationally, especially in the USA. A preview of future possibilities will be given.

#### Thomas Kaufmann

Thomas Kaufmann holds a diploma degree in Physics from the University of Bonn and a Master of Science degree in Chemistry from the University of California Santa Barbara. In 2012, he founded OTOjOY to raise awareness about hearing loop technology and provide better accessibility for individuals with hearing loss in public spaces. In partnership with two local non-profit organizations OTOjOY created the Loop Santa Barbara public awareness campaign to educate venues, consumers, and hearing professionals about hearing loop technology. More than 80 community spaces have been equipped with hearing loop systems, transforming Santa Barbara into the most hearing-friendly city in California. As a result, OTOjOY was honered with the Santa Barbara Mayor's Award for Outstanding Effort.

### Recent Innovations in and Around Hearing Loop Technology

This presentation will discuss non-traditional uses of hearing loop technology in settings such as concert venues and music festivals, as well as several recent developments and innovations related to induction loops. These include LoopFinder, a U.S.-wide web platform and iOS app that allows users to locate hearing loop-enabled venues, the newly created capability to receive the signal from a hearing loop using a smartphone, and recent advancements in creating automatic captions with low latency and high accuracy using hearing loop technology. The presenter will further discuss the need for multiple channel audio transmission, low bandwidth data transmission, a globally universal platform to locate accessible facilities, and currently unavailable features

in hearing devices to improve accessibility and convenience for users.

#### Markus Landwehr

Markus Landwehr was born with a bilateral severe sensorineural hearing loss. He first successfully completed an undergraduate degree in Communication and Electrical Engineering at the University of Applied Sciences in Konstanz, Germany before he started a Master's Degree in Audiology (M.Aud.) at the Flinders University in Adelaide, South Australia. There upon followed positions at Phonak in Switzerland, ENT-Department at the University of Cologne and Rehabilitation Clinic Bosenberg Kliniken in St. Wendel. Markus Landwehr took up a position in 2012 as Audiologist and Head of Therapy at the ENT-Department, Heidelberg University Hospital to establish an Outpatient Cochlear Implant Rehabilitation Centre. Since 2016 he is working as a Cochlear Implant Clinical Support Specialist for Oticon Medical, Hamburg

Moderator of the Conference

#### **Gary Leverington**

Action on Hearing Loss, Technical Support Manager Mr. Leverington has been working for charity for 12 years as he was drawn to a career in audio as a technical engineer after completing his HNC in electrical engineering. Mr. Leverington has been actively involved in some large installations including Buckingham palace, BBC studios and Suffolk county council from concept and design through to implementation. He enjoys using his experience in this difficult and confusing industry to help others make the right choices.

Mr. Leverington is now managing the technical support team within Action on Hearing Loss who support thousands of enquiries received annually regarding induction loop systems. These could be regarding smaller domestic systems or larger complex multi phased systems. Actions on Hearing Loss work with a number of suppliers to provide a comprehensive support package from products through to training and post-sale support.

#### A collective perspective regarding Hearing loss and the negative and positive implications of assistive technology

We would welcome the opportunity to discuss how assistive technology is helping people on a daily basis to access services and increase overall quality of life. This could include positive and negative experiences in equal measure. As a national charity this is the collective voice that we represent and we feel at times this message from the public can be

missed. Furthermore our collated reflection on how current industrial standards are being conducted. What works well, what doesn't the importance of awareness to ever increasing legislation and growing competition. What does the customer want, how we promote good practice and the struggles this creates.

#### Dr. Karen MacLennan

Doctor of Audiology/Teacher of the Speech & Hearing Handicapped

Dr. Karen MacLennan has been an Audiologist for 20 years. She has provided audiological and educational audiology services in hospitals, private practices, and nonprofit educational/ rehabilitation agencies. She teaches graduate and undergraduate courses in audiology and audiologic rehabilitation at Long Island University in New York. Her company, North East Hearing, has been installing hearing loops throughout the United States since 2011. Dr. MacLennan provides educational seminars to hearing healthcare professionals, students and consumers as part of the Hearing Loss Association of America's outreach to educate individuals about hearing, hearing loss and hearing assistance technology (HAT) and is attending this conference as a representative of the Hearing Loss Association of America (HLAA).

#### Telecoil (T Coil) Features and Functions For Use with Hearing Assistance Technology (HAT).

T Coils are placed within hearing devices on a horizontal, diagonal or vertical orientation. There are benefits and limitations with these three T Coil orientations when using HAT (hearing loops, FM/RF or IR system receivers). Consumers, who live with hearing loss, should be knowledgeable about T Coil orientation within hearing devices in order to use HAT successfully. T Coil programming can also affect how T Coils function when used with HAT. During this presentation, attendees will learn about T Coil orientation and how to use T Coils successfully within a hearing loop or with FM/RF and IR receivers. T Coil programming and advancements in T Coil features will also be reviewed. Informed decisions when requesting a T Coil in a hearing device and its features and functions can lead to a more enjoyable listening experience when using HAT.

#### Juha Nikula

CEO, co-founder at QLU Ltd. MSc. El. Eng.

Mr. Nikula has decades of experience in the semiconductor industry.

He is on his encore career as co-founder and CEO of QLU, a Finland based company that develops

assistive listening technologies and services for people with hearing loss.

Qlu services and products are globally recognized and its patented induction loop quality analysis and visualization method is targeted to be the de-facto standard.

### T -sign re-invented; hearing environment visualized

T -sign tells you where you can expect to hear well using your hearing aids, but it doesn't tell where nor how well the induction loop really works. We will introduce our unique, patented method and service concept for accurately testing the quality of the induction loop system with seat-accurate exactness. The results of the induction loop quality-mapping are published to an internet portal, where hearing aid users and event organizers can search accessible venues, and printed versions are delivered to the venue. We visualize the hearing environment!

#### **Julian Pieters**

Julian is Managing Director of Ampetronic, a global leader in Induction Loop systems for the last 30 years. Julian is an Engineering graduate from Cambridge University and has an MBA from INSEAD. Julian's original involvement in Ampetronic was nearly 30 years ago, developing software modelling techniques for designing magnetic fields in loop systems, the backbone of the tools the company uses today. Since 2004, Julian returned to lead the company, applying his vision and passion for helping people to hear. He has led the growth of Ampetronic and, by professionalizing the products and support services in the market, has driven the growth and quality standards of the global market for Hearing Loops.

As a passionate and active advocate for assistive listening solutions that provide a genuine benefit to people with hearing loss, Julian has played a key role in international Hearing Loop conferences, as well as Ampetronic's significant investment in standards committees and charitable projects.

### The future of hearing loop technology for assistive listening

Why will loops continue to be relevant, and for how long, especially with changes in hearing aid technologies, smartphones and other technologies? What are the new technologies being used in modern and future hearing loop systems?

What new applications are there for hearing loops? Julian Pieters will answer these questions, presenting a realistic view of the future for loop technology for assistive listening, and highlighting some of the trends seen in today's hearing loop market.

#### Aïda Regel Poulsen

Aïda Regel Poulsen is a hearing consultant at the CfH (Centre for Hearing Loss) in Denmark. She is a trained teacher and a speech and hearing therapist. Aïda has worked in the school department at the CfH and works in the department for counselling at the CfH, counselling and guiding children using HA and/or Cl, parents and pedagogical staff nation-wide. This function has been developing extensively during the last years.

Aïda worked as a hearing therapist at an audiological clinic, taught pedagogical audiology at the Southern University of Denmark and given courses to parents and professionals.

Aïda herself has a hearing loss. She is a volunteer for the Danish Association of Hard of Hearing, HØRE-FORENINGEN. When HØREFORENINGEN nominated Aïda to candidate for the EFHOH board (European Federation of Hard of Hearing) in 2015, Aïda was elected secretary for EFHOH.

#### To Loop or Not To Loop

The market for Assistive Listening Systems for people with hearing loss is growing - in particular are more technologies being introduced to us.

In her presentation Aïda Regel Poulsen will discuss the need of loops and tele coils along with other technologies such as streaming, Blue Tooth, FM et al.

- What to use in different communications and situations.
- How many different ALS is it relevant for one person to manage?
- How can society be made accessible?
- Does age matter?
- How do people with hearing loss interact best possible in family and society?

#### Dr. Hannes Seidler

Dr. Hannes Seidler studied electrical engineering at Technische Universitaet Dresden. As scientific assistant he researched for the development of procedures of hearing aid fitting. After 3 years activity in the industry he founded its own engineer's office in 2003. He focuses on room and building acoustics and assistive listening devices for hearing impaired people. For some years a research contract for the advancement of cochlea implants connects him with the University Hospital Carl Gustav Carus in Dresden additionally.

Hannes represents the DSB at the final panel discussion. As an expert on questions of accessibility and head of the respective DSB department he will outline and explain the DSB point of view in matters of a barrier free living environment for HOH people.

#### Dr. Louise Sinden-Carroll

Dr. Louise Sinden-Carroll, QSO, PhD. Dr Carroll, who is Caucasian, has hearing loss and wears two hearing aids. She is the past IFHOH Human Rights Officer and current IFHOH General Secretary; Patron, Hear for Families in New Zealand and Board member of Hearing Support, Christchurch (in NZ). Whilst working as Chief Executive of The National Foundation for the Deaf in New Zealand Louise completed a PhD thesis on the New Zealand Government policy response to prisoners with hearing loss (Flinders University, South Australia).

Limitations to achieving hearing loss identification and access to rehabilitation through technology by women living in New Zealand.

This collaborative presentation shows the challenges to achieving hearing loss identification and rehabilitation through technology by a Caucasian woman and a Maori woman living in New Zealand. It clearly highlights the need for State mandated hearing screening at regular intervals during a child's education and the loss of life opportunities that a failure to provide such early intervention can underscore.

It also shows how hearing loss identification and the provision of hearing loss rehabilitation through technology, can, at any age, lead to positive lifechanging opportunities.

By enabling access, the greatest investment of all, the growth of knowledge, can be achieved.

#### Lidia Smolarek-Best

Lidia Best. Vice President / EFHOH Lidia Best is the Chair of the National Association of Deafened People (NADP) in UK and a Vice President of the European Federation of Hard of Hearing People (EFHOH). She is responsible for running the EFHOH Policy Office, policy development and managing EFHOH strategy. Her work includes consultations, organizing training workshops on accessibility, and publications. She also does speaking engagements related to accessibility and quality of hearing care for hard of hearing people. Her main areas of focus in her work are accessibility, including access to ICTs and quality of hearing care as she sees this as a gateway to improved wellbeing for hard of hearing people. Recently she joined G3ict (the Global Initiative for Inclusive ICTs) as an accessibility consultant at the UN agency of the ITU (International Telecommunications Union) where she contributes her firsthand knowledge to include persons with disabilities in creating mainstream international standards to multimedia that make them accessible to persons with disabilities.



Importance of standards and consulting with hard of hearing people as experts by experience.

Hard of hearing people face so many different choices of listening experience thanks to new technological development, but are those developments breaking the barriers or are they creating new ones? Recent concerns related to wireless interference issues are a very good example to highlight. Hearing Loops are important to hard of hearing people, their universal appeal is important to us. However, there are new developments such as FM and especially Bluetooth applications have opened other venues to explore. Bluetooth and radio aids do not have the international standard like hearing loops have. This causes difficulties and for past few years, advocates struggled to ensure that governments take a note that some of their action may have detrimental effect on hard of hearing people ability to connect without any interference.

#### Dr. Juliëtte Sterkens

Audiologist Dr. Juliëtte Sterkens is on her encore career after 30 years in private audiology practice as the Hearing Loss Association of America Hearing Loop Advocate. In this capacity she advocates for the use of hearing loop systems to improve hearing access for consumers with hearing loss. She works to educate consumers, audiologists and hearing care specialists, as well as professionals in the building and AV business, of the benefits of hearing loop technology. Her efforts have led to 600<sup>+</sup> loop installations in Wisconsin and many more around the USA. For her work she received the Wisconsin Audiologist of the Year, Arizona School of Health Sciences 2013 Humanitarian of the Year and the American Academy of Audiology Presidential Awards.

#### Progress towards Looping the World

Hearing loss is often misunderstood; not just by the person with hearing loss but also by family, friends and co-workers. Even greater misconceptions exist regarding hearing aids benefits, and advertising claims have raised expectations beyond reality. Used alone, hearing aids are simply unable to deliver in many public places; but hearing loops can overcome these inherent limitations, only if the consumer has a telecoil equipped hearing aid and is aware of how to use it. Hearing loop installations are on an upswing thanks to increased demand driven by positive user experiences in properly installed hearing loops, and effective consumer advocacy by many organizations. The hearing aid industry, recognizing loops increase hearing aid user satisfaction, is starting to mention telecoils in advertising, educating providers and creating telecoil-functionality improving apps. Juliëtte Sterkens will explore ways to build on this world-wide movement to encourage and facilitate IEC-standard loop installations, as well as ways to increase the likelihood that consumers are routinely offered the telecoil option while purchasing hearing aids.

#### **Andrew Thomas**

Andrew Thomas, Market Development Director for Contacta Systems, has over 25 years' experience in assistive listening systems. Through his work, Andrew has developed a unique understanding of the needs of people with hearing loss, particularly in the way that they interact with assistive listening systems. In recent years, Andrew has gained extensive knowledge of the requirements within the industry, focusing on the specialty of the customer journey for people with hearing loss in many areas of their daily lives. This has led to him being involved in the revision of the BS8300 standard as a BSI Committee member.

As chairman of IHLMA (International Hearing Loop Manufacturers Association) one of his objectives is to improve the standards of hearing loop and assistive listening systems in the UK. Within this role Andrew has access to a great depth of knowledge that can be drawn upon to compliment what is already available to him, both technically and practically, in all fields of assistive listening systems and new any technologies that are developing.

#### UK development of 'Lets Loop' campaign and subsequent progression to the 'Let's Hear' initiative.

The presentation will explain how the 'Lets Loop' campaign has evolved into 'Let's Hear', a wider initiative about better hearing. By embracing the wider issues around hearing access, the campaign's reach has increased which has produced more opportunities for assistive listening solutions. The initial Let's Loop the UK campaign was launched in 2012 and has shown that, with the right set up, local communities can initiate change for the better and improve access to better performing hearing loops. The presentation will look at group structure, what has worked and what hasn't, the step-by-step guide and results from the campaign. It will also look at how closer links with other bodies (Age UK & the Dementia Society) help to raise awareness and ultimately bring about change for the individual and improve community hearing accessibility and inclusion.

#### Wendelina Timmerman

Wendelina Timmerman was born to a family in which 6 out of 10 members, including her, had hearing loss. Over the years, Wendelina witnessed many different people's ways of coping with this loss, and later her work as a physiotherapist and haptotherapist led her to develop various methods and tools to help them. She has been coaching people with hearing impairment since setting up her company, Hooridee ('hearing idea') in 2001. She also trains professionals who work in the field of hearing loss, audiology and ENT.

### How those with hearing loss improve work conditions for everyone

During her presentation, Wendelina will present the following methods and tools she has developed to enhance the work environment, both for those with and without hearing loss.

- Extra technical hearing solutions
- Communication skills to maximize the understanding of speech
- New solutions to improve interaction with t eam members

Thanks to their ability to render exchanges in the work place more alive and dynamic, Wendelina offers these methods and tools as veritable 'gifts.'

#### Senthil Vellaichamy

Sennheiser Streaming Technologies GmbH Manager Research & Development

### Assisitve Listening over WiFi – requirements, challenges and technical solutions

MobileConnect: optimal speech comprehension through Sennheiser's MobileConnect has made live audio streaming via Wi-Fi possible on mobile devices, thereby enhancing speech intelligibility in various environments.

MobileConnect - Sennheiser's Wi-Fi based system for cultural events or lectures at universities enables low-latency transmission of audio content to mobile devices such as smartphones and tablets. With our real time audio streaming server and the Mobile-Connect App, you can easily provide assistive listening, audio description, interpretation channels or audio for silent screens to your venue.

Sennheiser's MobileConnect system embraces the bring-your-own device (BYOD) principle enabling users to use their own mobile devices on the Mobile-Connect Wi-Fi network or using their own existing network. The system consists of a ConnectStation, a central unit for integrating different audio streams and transmitting them via Wi-Fi access points to the personal mobile devices.

We believe that everybody should hear the best possible audio to get the full experience. We created MobileConnect as an Assistive Listening Audio App for everyone to use on their own smartphone.

#### Horst Warncke

Horst Warncke studied medical technology in Hamburg from 1979 to 1983. Since 1984 he has been the head of Audiology at Oticon GmbH in Hamburg. Private life: family man (two sons), grandpa, amateur musician. He also contributes to the Technical Commission of the German Association of the Hearing Instruments Industry and is a member of the advisory board of the German Society of Audiology (DGA) and the hearing aid standards committee

### Hearing Systems go online - from Telecoil to Internet

When hearing systems reach their limits, people think about assistive devices. Especially people with severe hearing loss know of this difficulty. In the past, the telecoil, along with the microphone, was the most important solution to feed signals into

hearing systems. In addition, there was the galvanic (wired) audio shoe, a "socket" to connect, for example, to FM-systems. Furthermore, there were various special solutions which all had to be additionally purchased and operated, such as text telephones, fax machines, or flashing lights.

Now, thanks to new power saving radio frequency signals in the 2,4 GHz band, various supportive operations can be employed either directly in the hearing system or with the help of a coupled smartphone.

This combination allows for diverse improvements – often at no additional cost, because the required app is offered free of charge. Utilizing specific apps, as for example for Tinnitus, enables users of a hearing system to build their desired system. This can be used for phone calls, watching TV, monitoring of batteries for example – making daily life more convenient.

The lecture provides a brief overview of the exciting possibilities of today's hearing systems. A small glimpse into the future rounds out the presentation.

#### Anna Kain Wyatt

She is the policy officer at the Swedish Association of Hard of Hearing People (HRF) and responsible for influencing government policies in areas such as education and sing language. Raising awareness of the challenges facing hard of hearing students and provide the authorities with the necessary solutions in order to improve the students' situation and results.

#### Assistive Listening and Communication Devices at School – results from the HODA Study

An introduction to the structure and results of the HODA-study conducted by the Swedish National Agency for Special Needs Education and Schools. The study deals with issues that have an impact on the auditory environment in schools, i.e. on the preconditions for communication in the classroom. Significant components of the auditory environment are the acoustic characteristics of the classroom, the teaching methods used, and the technological and pedagogical qualities of assistive listening and communication devices. Eighty-five pupils with hearing loss in inclusive education, their teachers, mentors, and municipal special needs teachers (specialized in hearing loss issues) took part in the study.

### **Our Sponsors**

We extend our sincere appreciation to the sponsors of Future Loops, the 4<sup>th</sup> International Accessibility Conference on Hearing Loops and Hearing Technology



Since 1985, Humantechnik develops and produces technical solutions which help people with hearing disabilities in their every-day life. Founded by Gerhard Sicklinger with much ambition, after experiencing the need for assistive devices in his own family, Humantechnik has developed into a company with a workforce of over 70 people, some

#### **Gold Sponsor**

of them with impaired hearing. In Germany alone, over 3000 hearing aid/acoustics specialists are partners and with exports now accounting for over 60 percent of sales volume and rising sharply, the success confirms the high level of acceptance which HUMANTECHNIK enjoys in its homeland and internationally.

With affiliates in France, Great Britain, the Netherlands and Switzerland as well as distributors in Canada, Eastern Europe and Australia, our products are available in ever more countries.

AUDIOropa was formed in 2012 as a subdivision brand to separate the professional audio transmission systems from the domestic product line.

To find out more about HUMANTECHNIK's devices and systems, please visit http://www.humantechnik.com for domestic solutions and http://www.audioropa.com for their professional line of products.

### **AMPETRONIC**

Listen to the difference

At Ampetronic, we've been developing innovative, world-leading Hearing Loop systems for over 30 years. Our products, services and professional training programs provide unrivalled audio clarity in almost any public environment

#### Silver Plus Sponsor

- making the everyday easier and the extraordinary just as extraordinary as it should be.

Ampetronic has been a proud sponsor of the International Hearing Loop Conference since the inaugural event, and is a loyal supporter of worldwide advocacy and educational campaigns for hearing assistance.

The Ampetronic team, and our German partners Lausser & Vohl will welcome you and answer any questions at our booth in the main hall.



We believe that Univox loop systems should always work perfectly for the people who rely on them.

To ensure that they do, we invest in providing the necessary tools and knowledge on how to design and install IEC-60118-4 compliant systems.

#### Silver Sponsor

We pride ourselves in developing fantastic hearing loop products, and being the most innovative provider of induction loop systems in the industry, as we been since launching the world's first true constant current loop driver in 1969.

Univox offers a complete range of induction loop products and system design tools for the professional audio installation market.

#### Silver Plus Sponsor

In 2017, Phonak, a member of the Sonova Group, proudly celebrates its 70<sup>th</sup> anniversary.

Headquartered near Zurich, Switzerland, Phonak was born in 1947 out of a passion for taking on the most difficult hearing challenges. Seventy years later, this passion remains. As the industry's leading provider, we offer the broadest portfolio of life-changing hearing solutions. From pediatric to profound hearing loss, we remain committed



to creating hearing solutions that change people's lives to thrive socially and emotionally. We believe in creating a world where 'Life is on' for everyone.

#### Silver Sponsor

Sennheiser is shaping the future of audio – a vision built on more than 70 years of innovation culture, which is deeply rooted within the family-owned company. Founded in 1945, Sennheiser is one of the world's leading manufacturers of headphones, microphones and wireless transmission systems. With 20 sales subsidiaries and long-established trading partners, the company is active in more than 50 countries and operates its own production facilities in Germany, Ireland and the USA. Sennheiser has around 2,800 employees around the world that share a passion for audio excel-



lence. Since 2013, Sennheiser has been managed by Daniel Sennheiser and Dr. Andreas Sennheiser, the third generation of the family to run the company. In 2016, the Sennheiser Group had sales totaling €658.4 million. www. sennheiser.com

#### **Bronze Sponsor**

#### **Advanced Bionics GmbH**



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#### **Cochlear Deutschland GmbH**



Hear now. And always

#### **Bronze Sponsor**

#### **Contacta Systems Ltd**



### **Our Exhibitors**



































Hear now. And always

### **Social Program**

#### Welcome evening:

On Thursday the 5<sup>th</sup> of October at 19.00 - 21.00 a welcome evening for International quests will take place at the Raum Lankwitz.

#### Sightseeing and dinner:

On Friday the 6<sup>th</sup> of October at 18.00 - 22.00 we welcome you to join our Sight Seeing Tour and Dinner (only for participants who registered in advance)

#### **Come Together event:**

On Saturday the 7<sup>th</sup> of October at 19.00 – 22.00 we will host the "Come Together Evening" at the Raum Lankwitz.

#### **Sunday culture Program:**

On Sunday the 8<sup>th</sup> of October, starting at 09.00 you can join the guided tour of the Reichstag Building that you pre-ordered.

#### **English Tour:**

We'll depart from the hotel at 9:00 and take public transport to the *Reichstag*. The English language tour starts at 10:30 and takes about 90 minutes. FM technology will be available. Then we will visit the *Reichstag dome*.

#### German Tour:

Pünktlich um 11:30 treffen wir uns am Zentralen Eingang für Besucher, Scheidemannstr. /Höhe des Westportals des Reichstaggebäudes. Die Führung beginnt um 12:00 und dauert ca. 90 Minuten. FM Technik bringen wir mit. Im Anschluss an die Führung besichtigen wir die Reichstagskuppel

A fee of € 10.00 will be charged on the first day of the conference. The maximum attendance is limited to 22 persons.

If you didn't pre-order, you're welcome to explore Berlin on your own with the help of the guide we attached.

#### **Imprint**

#### Deutscher Schwerhörigenbund e.V. (DSB)

Sophie-Charlotten-Str. 23a, 14059 Berlin T: (030) 47 54 11 14, F: (030) 47 54 11 16 E: dsb@schwerhoerigen-netz.de

### **Organizers**

#### Deutscher Schwerhörigenbund e. V.

The association Deutscher Schwerhörigenbund is one of the oldest German disabled rights organisation in Germany, founded in the year 1901 by Margarethe von Witzleben in Berlin, the first hearing impairment association worldwide. The association's focus is on representing the interests of hearing impaired and profoundly deaf people with the aim to obtain equal participation in social life, and on helping people to help themselves. Find out more about us at www.schwerhoerigen-netz.de.



### International Federation of Hard of Hearing People

The International Federation of Hard of Hearing People (IFHOH) was established in 1977 as an international, non-governmental organization, registered in Germany.



IFHOH represents the interests of more than 300 million hard of hearing people worldwide. This includes late deafened adults, cochlear implant users, and people who experience Tinnitus, Meniere's disease, Hyperacusis and auditory processing disorders. IFHOH has over 40 national member organizations from most regions of the world. IFHOH and the European Federation of Hard of Hearing People (EFHOH) work to promote greater understanding of hearing loss issues and to improve access for hard of hearing people. IFHOH has special consultative status with the United Nations Economic and Social Council (ECOSOC), affiliation with the World Health Organization, and membership in the International Disability Alliance. For more information go to IFHOH's website: www.ifhoh.org

#### **Aktion Mensch**

As Germany's largest funding organization in the social sector, the *Aktion Mensch* is advocating the togetherness of people with and without disability by funding social projects as well as actions and campaigns for inclusion. Since it was founded in 1964 the purpose of the charity *Aktion Mensch* is the participation of people with disability, the possibility of a self-determined life and the chance to demonstrate own abilities. The charity *Aktion Mensch* commits to dissolve environmental and mental barriers. Thus the DSB would like to thank the *Aktion Mensch* most sincerely for the generous support. www.aktion-mensch.de

Gefördert durch die

